



Vehicle Information



	Model		
	VIN No.		
	Chassis No.		
	Engine No.		
	Date of Sale	Direct Sale / Dealer Sale	
I/We have been explained about the warranty terms & conditions as mentioned by the dealer's representative. I/We agree to abide by the terms & conditions.	Kilometer Reading	Key No.	
	Registration No.	ME Invoice No.	
	Dealer/Sub-Dealer's Name & Address :		
Date	Owner's Signature	Date	Seal & Signature

This coupon must be duly filled by the dealer and retained for their record.







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Congratulations



Congratulations! On purchasing the GOA.

Your Mahindra is a dynamic blend of comfort, ruggedness and utility.

Before you start driving your MAHINDRA, we strongly suggest you to spend some time in getting to know your vehicle. A good way to do this would be to read this manual while simultaneously exploring your MAHINDRA physically.

We'd be delighted to know about your experience with your MAHINDRA. We wish you a happy & safe motoring experience with your new vehicle.





Introduction



A WARNING indicates a situation in which serious or fatal injury could result if the warning is ignored



A CAUTION indicates a hazardous situation which, if not avoided may result in minor (or) moderate injuries, damage to your vehicle or other properties.



A NOTE provides information and sometimes suggests how to make better use of your vehicle.



In view of the policy of continuously improving our products, we reserve the right to alter specifications or designs without prior notice and without liability / Obligation. Illustrations do not always show the vehicle in the standard form. Please be aware that this manual applies to a number of models and options. As a result you may find some explanations for equipment not installed on your vehicle. All the information, illustration, and specifications in this manual are based on the latest product information available at the time of publication. Due to improvements, changes in design & specifications there may be differences between your vehicle and the information in this manual.

An Authorised Mahindra Dealer knows your vehicle best. So when maintenance or service is necessary, that's the place to go.



Any unauthorised add-on electrical / electronic installation (or) installing a mobile two-way communication system in your Mahindra vehicle could affect the electronically controlled fuel injection system (CRDe / MPFI), ABS and other electronic units. Before installing such systems / equipment contact your Mahindra Authorised dealer.





Modification of your Mahindra

This vehicle should not be modified with non-genuine products. Modification with non-genuine parts / products could affect performance, durability & safety of the vehicle, and may even violate governmental regulations. In addition, performance problems or damage resulting due to the unauthorised modification may not be covered under warranty.

Keep this manual in the vehicle as a reference for safe & enjoyable motoring in your Mahindra. This manual should be given along with the vehicle to the next owner when the vehicle is sold.

Environmental Caring

Your vehicle has been designed with the aim of caring for the environment. A number of features have been incorporated in your vehicle to ensure environmental compatibility throughout its life cycle.

As a user, you too can contribute to protect the environment by operating your vehicle in a proactive manner. It mostly depends on your driving style and the way you maintain your vehicle. Do not dispose of parts replaced in the course of regular vehicle maintenance (such as battery, oil filter, air filter, etc.) also oil containers (empty or with used oil, etc.) in with household waste. Dispose of them through specialist organizations. In all cases, comply with state, territory and/or local bylaws.



General Safety Information & Instructions



Failure to follow the warnings and instructions provided in this manual could result in failure of the vehicle, an accident, personal injury or death.

- Carefully read, understand and follow the warnings and instructions given in this manual. It is an essential part of the product. Keep it in a safe place for future reference.
- Please note that throughout this manual, reference is made that "an accident" could occur. An accident could cause you or a bystander to sustain severe personal injury or death, or result in property damage
- Never use a mobile phone, personal music device or pager while driving. This may take your focus off the road and lead to accidents.
- Please be advised that many service and repair tasks require specialized knowledge, tools and experience. General mechanical aptitude may not be sufficient to properly service or repair your vehicle. If you have any doubt whatsoever regarding your ability to properly service or repair your vehicle, please contact your authorized Mahindra dealer or other qualified mechanic.
- Inspect the seat belt system periodically, checking for

cuts, frays or wear in the seat belt webbing, or loose buckles, retractors, anchors or other loose parts. Damaged parts must be replaced immediately.

- Examine tires for excessive tread wear and uneven wear patterns. Check for stones, nails, glass, or other objects lodged in the tread and check sidewalls for any cuts, cracks, or other signs of wear. Replace as necessary.
- Always maintain the safety labels affixed to your vehicle in good legible condition. If the labels are missing or damaged, replace as necessary.
- All signal lamps, buzzers, shields, guards & other protective safety devices must always remain in place and in good, proper working condition.
- The life span of Mahindra products depends on many factors. Improper use, abuse or harsh use in general may compromise the integrity of the vehicle and significantly reduce its life span. The vehicle is also subject to wear over a period of time. Please have your vehicle regularly inspected by a authorized Mahindra dealer or a qualified mechanic. If the inspection reveals any damage or excessive wear, immediately replace or have the component serviced.





General Safety Information & Instructions



- Use only GENUINE parts supplied by Mahindra. The use of spurious parts voids the warranty and makes the user responsible for any incident caused.
- The vehicle can be used only as a passenger vehicle and for light commercial applications. Any other use (i.e. as an ambulance, for snowplowing etc.,) is improper, and may result in an accident voiding the warranty.
- If the vehicle is to be used to collect particularly heavy and/or bulky materials (dirt, gravel, sand, blacktop debris, etc.) do not exceed the vehicle capacity weight and never modify or alter the vehicle or any of its components.
- Use appropriate personal protection equipment, such as eye protection, face shield, respiratory protection, gloves and coveralls, when performing maintenance, repairs or adjustments.
- Never crawl under or be in close proximity to the vehicle when it is lifted off the ground unless the vehicle is securely supported with jack stands or other appropriate safety devices.
- Never attempt any repairs or adjustments to any component while the vehicle is in motion. Always switch OFF the engine, and wait for the motors to come to a complete stop before performing any repairs or adjustments.
- The vehicle identification plates are the only legal identification reference; hence it is necessary to keep them in good condition. Never modify the data on the plate or remove them. The Customer is responsible for any possible tampering with the plates, which will immediately void the warranty.
- On a long drive, take frequent breaks in order to remain fully alert during operation of the vehicle. Never operate the vehicle if you feel dizzy or sick.





Manual Contents



Graphic Symbols on your vehicle

Some of the following symbols are used to identify controls & display on your vehicle.

LIGHTS	WATER IN FUEL FILTER	HEADLIGHT LOW BEAM	PARKING LIGHTS	HAZARD WARNING FLASHER	REAR WINDOW DEFROSTER	LOW BRAKE FLUID
				AC HI	AC LO	
HORN	WINDSCREEN WIPER	WINDSCREEN WIPER & WASHER	VENTILATOR FAN	AC HIGH COOL	AC LOW COOL	PARKING BRAKE
AC FACE MODE	AC FACE/FLOOR MODE	AC FLOOR MODE	AC FLOOR & DEFROSTING MODE	DEFROSTER MODE	AIR RECIRCULATION	

Some of indicators & warning lights in instrument cluster

	Security System Status		Turn signal warning light
	Battery Discharge Warning Light		Head light beam
	Low Engine Oil Pressure Warning Light		Engine pre-heater/glow-plug light
	Anti-Lock Brake System Warning Light	4WD LOW	4WD Low indicator light
	Door Ajar Warning Light		4WD high indicator light
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.....▶ Service Information



.....▶ PDI Service Coupon



.....▶ Warranty Coverage



Service Information



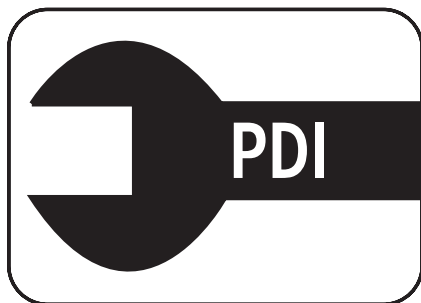
While it goes without saying that your Mahindra vehicle is designed to give you the best performance, you are advised to maintain it as per instructions given in the Owner's Manual.

- You are entitled to a Pre-Delivery Inspection service by the M & M Dealer

Pre-delivery Inspection (PDI)

Carried out before delivery





Service Coupon

SERVICE & WARRANTY INFORMATION



Mahindra

**Preventive Maintenance
Service Coupon**



Service Rendered Date

At Km

Registration Number

Model

Dealers / ASC Seal & Signature

Mahindra

**Preventive Maintenance
Service Coupon**



Model

M&M Invoice Number

Owner

Service Rendered Date

At Km

Dealers / ASC Seal & Signature

Valid only at
M&M Authorised Service Station

Serial Number

Chasis Number

Engine Number

Registration Number

I am satisfied with the condition of my vehicle and have taken delivery of the same. The dealer has explained the warranty term, maintenance schedule and policies to my satisfaction.

Owner's Signature

SERVICE & WARRANTY INFORMATION

Mahindra

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SERVICE & WARRANTY INFORMATION





Warranty Coverage



PRE-REQUISITES FOR WARRANTY

- The owner must ensure that the vehicle is serviced as per the manufacturer's recommended periodic maintenance schedules.

The Owner Registration Certificate must be complete when the vehicle is delivered. If the Owner detects any fault in the vehicle during any of the phases, he / she should report it to the Mahindra Dealer and get it corrected immediately.

KNOW WHEN YOUR WARRANTY BEGINS

Your Warranty Start Date is the day you take delivery of your new vehicle or the day it is first put into service (for example, as a dealer demonstrator), whichever occurs first.

Warranty Coverage: This Mahindra vehicle represents our total commitment to high product quality and workmanship. However, should any problem occur to your vehicle during the Warranty period, the Warranty on the vehicle is subject to certain stipulations. Hence, you are advised to go through the warranty policy in detail.

Warranty Coverage

WARRANTY POLICY ON NEW VEHICLES

- Mahindra & Mahindra Ltd. Gateway Building, Apollo Bunder, Mumbai - 400 039. INDIA, warrant to the retail purchaser of the Motor Vehicle branded as 'Mahindra' (hereinafter referred to as 'vehicle') to be free from defects in material and workmanship under normal use as instructed in the Owner's Manual and service, under the warranty, Company's Authorised Dealer will repair or replace any part thereof, **including all equipments or trade being limited to trade accessories (except those governed by special warranty policy stipulated by respective manufacturers, like tyres and batteries etc.)** originally supplied by us subject to all other terms and conditions specified herein below found to be defective in materials or workmanship in Company / Dealer opinion within 36 months from the date of delivery of the Vehicle to the retail customer (the original Purchaser) or before such vehicle has been driven for 100,000km, whichever occurs earlier.
- For the purpose of this warranty, the Term 'Product' means and includes only new vehicles manufactured by the Company and / or sold by the Company's Authorised Dealers. This warranty is limited to the delivery to the purchaser, free at the Authorised Dealer's workshop or at any other place at the discretion of the Company, of the part or parts whether new or repaired, in exchange for those acknowledged by the Dealer to be defective and endorsed by the Company to that effect. The parts so repaired or replaced shall also be warranted for quality and workmanship but such warranty shall be co-terminus with this warranty.
- This warranty shall not apply to and Company shall in no way be liable to for any vehicle which shall have been repaired outside an Authorised Company's Service Station or which has been altered or modified or built upon in any way. This warranty is in lieu of all other warranties express or implied, and no person, agent or representative of the Company is authorised to give any other warranties on the Company's behalf or to assume for it any other liability in connection, with the vehicle.
- The Company's Liability under this warranty is dependent upon the strict observance by the Purchaser, of the following provisions:
 - a) The purchaser shall take Pre-Delivery Inspection.
 - b) The purchaser at the time of delivery shall sign complete and return the warranty certificate printed in this booklet.
 - c) All the required maintenance as specified in this owner's manual must be performed. Mahindra & Mahindra, India recommends that all the maintenance services should be recorded in the appropriate area of this owner's manual by the authorised Mahindra dealer who performed such service. "
 - d) Repairs or replacements will be performed by the Authorised Dealer of the Company, subject to the reporting of the vehicle to the nearest Authorised Dealer's workshop.
 - e) The purchaser shall at all times in the operation of vehicle use



- only those of lubricating oils, lubricants or fuel, as recommended by the company.
- f) The judgement of the Company or its Authorised Dealers in all cases of claims shall be final and conclusive and the purchaser agrees to accept its decision on all questions as to effects and to the exchange of part or parts. The replaced parts shall be the property of the Company.
 - g) Company reserves the right at any time or times without notice to revise, modify, discontinue or change any of the models of our vehicles or any part or parts thereof and neither Company nor the Dealer will incur any liability or obligation to the Purchaser by reason of any revision, modification, discontinuance or change whatsoever.
 - h) Claims arising from this Warranty will be recognised only if they are ascertained / confirmed by the Authorised Dealer and notified to the Company without delay, after the defect has been ascertained.
- Certain limitations wherein the Warranty does not apply are listed below:
 - a) If repairs are required because of the following reasons:
 - i) The Vehicle is not operated / used as per the recommendation in the Owner's Manual, or;
 - ii) The Vehicle is subjected to accidents, or theft or fire;
 - iii) The Vehicle is subjected to abnormal use such as racing, rallying or participation in any other sports competitions.
 - iv) Abnormal wear & tear due to rough handling
 - b) Appearance items:

Any slight imperfections in paint, chrome and trim and other decorative parts, deterioration of exterior item, trim and other decorative part due to normal exposure or use is not covered under the terms of Warranty.
 - c) Door and windshield glass breakage and fused bulbs are not covered under Warranty.
 - d) Normal Maintenance Service Replacement Items:

Filters, Brake or Clutch Linings, Wiper Blades, Belts, Cables, Spring Bushing, U. Joints cross, Water pump kits, Tie Rod Ends, Bell-crank Kit, Hoses, Wheel and Master Cyl. Kits and bulbs, Spark plugs, Ignition Points, Condensor, Rotor, Distributor Cap. Please note that this list is neither exclusive nor exhaustive and the decision of the Company shall be final in this regard.
 - e) Tyres / Batteries / Tube Warranty

The Warranty is provided by the respective Manufacturers under their warranty terms. Company's Dealer will assist purchaser in taking up the complaint with the respective manufacturers and their decision on the warranty will be final.
 - f) Proprietary Items

The following are proprietary items and warranty is provided by the respective Manufacturers under their

Warranty Coverage

warranty terms. Any complaint on the following items, in addition to Tyres and Batteries, is to be referred to the respective manufacturers of these items / or their authorised local agents for warranty claim / repairs / replacements. In case of difficulty Company's dealer will assist purchaser to conclude the complaint satisfactorily. Their decision will be final on warranty.

1. Fuel Injection Pump
2. Nozzle

- g) Company makes no Warranty nor assume any liability in respect of any defect in metal or other material in any part, device of trade accessories which would not have been discovered by ordinary factory inspection.
- h) Repairs required due to following reasons:
 - i) Due to unauthorised modification to the Vehicle which in any way affects the stability or reliability of the components of the basic vehicle.
 - ii) Continued usage in spite of awareness of defect.
 - iii) Excess / heavy load beyond the carrying capacity of the vehicle affecting the basic structure of the Vehicle.
- i) Any representation or implication relating to speed, range, fuel consumption or estimated performance characteristics
- j) Driving in a manner to cause water to be ingested/entering into the engine.

k) Using the vehicle as a stationary power source

l) Any vehicle in which the Vehicle Identification Number (VIN) is defaced or changed in any way

- The above Warranty is in lieu of all other Warranties, express or implied and no person, agent or representative of the Company is authorised to give any other Warranties on the Company's behalf or to assume for it any other liability in connection with the vehicle.

☐ ☐ ☐ ☐ ☐ ☐

☐ **Warranty Policy Wear & Tear** ☐ ☐ ☐ ☐

Description	Warranty Coverage
Basic Warranty Period	3 Years / 100000 Kms
Wear & Tear Parts	Period / Mileage (Kms)
Brake Disc Pads (For manufacturing defects)	12 Months / 20 K
Brake Disc (For manufacturing defects)	12 Months / 20 K
Shock Absorber	12 Months / 50 K
Clutch Kits (For manufacturing defects)	12 Months / 20 K
Drive Belts	12 Months / 40 K
Wiper Blades	3 Months
Upholstery / Trim (excluding normal wear & fading)	3 Months
Oil seals / Hoses	12 Months / 40 K
Glass	3 Months / 5 K
Appearance Part (Bumper, Moulding, Emblem) - For manufacturing defects.	3 Months
Battery	12 Months
Injection Nozzles (excluding adulteration of fuel)	12 Months / 40 K
Electrical work	12 Months / 20 K
Door rubbers	12 Months / 50 K
Audio	Suppliers Warranty
Diesel Pump calibration (excluding adulteration of fuel)	12 Months / 10 K
Spark Plug & High tension Leads (If applicable)	12 Months / 20 K
Drive Line Rubber parts (Boots)	12 Months / 30 K
Rubber components	12 Months / 30 K
Suspension bushes & stoppers	24 Months / 50 K
Wheel Alignment	3 Months / 02 K (from date of sale)
Propellor Shaft & Universal Joint	24 Months / 50 K



Warranty Policy Wear & Tear





WARRANTY CERTIFICATE

Serial Number: _____

This is to certify that the below mentioned vehicle is under WARRANTY coverage. This Contract is valid for a period of 36 months from the date of delivery to the retail customer (original purchaser) or before such vehicle has been driven for 100,000 km, whichever occurs earlier.

Vehicle Information:

Model	:	_____	Registration No.	:	_____
Colour	:	_____	Engine No.	:	_____
Year of Mfr.	:	_____	Chasis No.	:	_____
Date of Delivery	:	_____	Mileage at Delivery	:	_____

Customer Details:

Name : _____

Address : _____

Tel : (0) _____ (R) _____ Mobile: _____ Fax: _____





The above mentioned Vehicle has been purchased by me/us, and I/We have taken delivery on _____ and I/We have read, understood and agreed to the terms and conditions of the Warranty Policy as detailed in this document.

Date:

Customer's signature

Address, Telephone No's of Service Centres:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Telephone : _____	Telephone : _____	Telephone : _____
Fax : _____	Fax : _____	Fax : _____
Mobile : _____	Mobile : _____	Mobile : _____





Record of service performed and Record of maintenance and repair carried out

**Record of Service Performed**

Recommended Service at KM	Date	Odometer	Repair order no. Reading KM	Service Dealer's Signature with Stamp
PDI				
5000				
10,000				
20,000				
30,000				
40,000				
50,000				





Recommended Service at KM	Date	Odometer	Repair order no. Reading KM	Service Dealer's Signature with Stamp
60,000				
70,000				
80,000				
90,000				
100,000				
110,000				
120,000				



Battery Installation & General Maintenance



Although the battery is made as robust and durable as possible, the following must be observed to get the maximum performance from the battery.

1. THE BATTERY must be fitted firmly in the battery cradle, so that no undue vibration or straining occurs.
2. CONNECTING CABLES should have adequate current carrying capacity and be long enough to prevent straining of the battery terminals. It must be ensured that correct polarities (plus to plus and minus to minus) are connected.
3. TERMINALS should be brushed clean before connecting and coated immediately afterwards with pure petroleum jelly (vaseline) and NOT grease.
4. BATTERY TOP should be kept clean and dry.
5. CHECK that voltage regulator setting and generator output or normal for the battery. Indications as to this are, that topping up intervals are regular and not too frequent and that the specific gravity of the acid in the battery remains between 1.200 to 1.240.
6. VENT PLUGS should be kept clean and tight.
7. LEVEL of acid should be kept about 10 mm above separator tops. Add approved distilled water only to each cell to restore level. NEVER ADD ACID.
8. STRENGTH of acid should never be allowed to exceed 1.230/1.240. Insist on this specific gravity, even if you are advised otherwise.
9. NEVER INSTALL a lower ampere hour battery than advised by your motor dealer or instructions handbook.
10. NEVER keep your battery idle for periods exceeding 2 weeks, If this cannot be avoided, ensure that the battery is removed from the car and recharged every 2-3 weeks.
11. In extreme cold condition, the specific gravity of battery should be changed. Refer to dealer or Mahindra Authorised Service Centre.





1. The warranty periods for various types of Vehicles are as under:
Utility Vehicle / Commercial Vehicles :- 15 months from date of mfg. of battery or 12 months from date of sale of Vehicle whichever is earlier.
2. The liability of the warranty is limited to making good defects arising solely from the use of faulty material or workmanship during manufacture and developing UNDER PROPER USE during the warranty period.
3. This warranty is VALID only if the battery is serviced during each & every periodic maintenance service as recommended in this owner's manual and entries made on the service card.
4. RECHARGING DOES NOT COME UNDER THE PURVIEW OF THE WARRANTY.
5. This warranty does not cover damage to the battery caused by faulty electrical systems, irregular servicing, failure to use distilled water, negligent maintenance, wilful abuse, or destruction by fire, collision, theft or recharging.
6. The warranty is NOT VALID if the battery under complaint has been opened or tampered with in any manner whatsoever. It should be returned to the nearest Authorised wholesaler / service dealer complete with electrolyte.
The OEM wholesaler / service dealer has the option either to rectify the defect in the battery or replace the battery.
7. Breakage of container and cover do not come under the purview of the warranty.
8. To and fro transportation charges of the battery under complaint will be borne by the customer.
9. The liability under this warranty will cease on the transfer of a battery to any person other than the original purchaser or to any vehicle other than that on which the battery was originally fitted.
10. This warranty card along with a copy of the Cash Memo / Bill must accompany all claims arising within the warranty period.
11. Recharging will be billed extra.

Contents



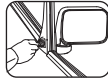
Identification Numbers



Instrument Cluster



Keys and Door Locks



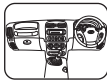
View Mirrors



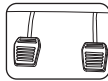
Seating Adjustments



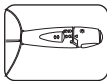
- Ignition cum Steering Lock



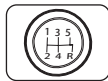
Dash Board



- Pedals

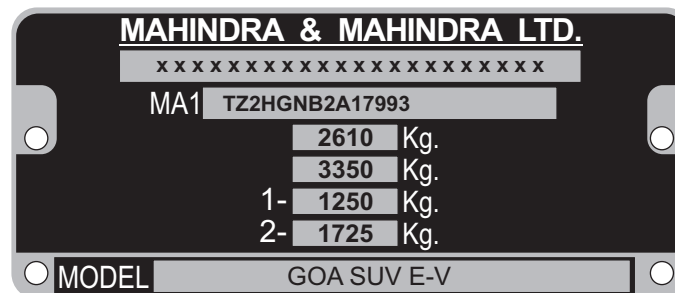
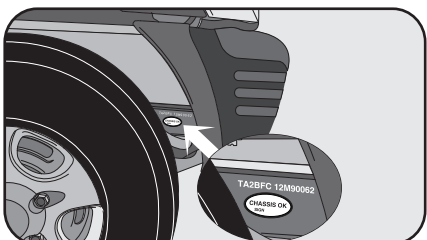
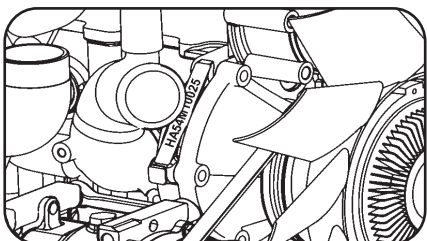
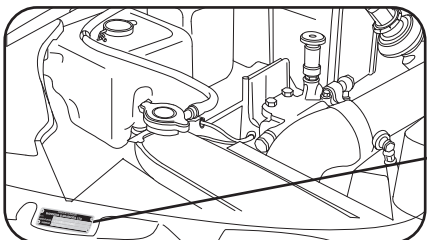


Combination Levers



Manual Transmission / Gears

Identification Numbers



Vehicle Identification Number (VIN)/Vehicle Serial Number

The vehicle serial number / VIN is the legal identity of your vehicle. It is used in registering the ownership. To locate the vehicle serial number open the bonnet. You will find number on a label near the bonnet release lever. The VIN Plate shown above is a pictorial representation. Check the VIN plate of your vehicle for exact details.

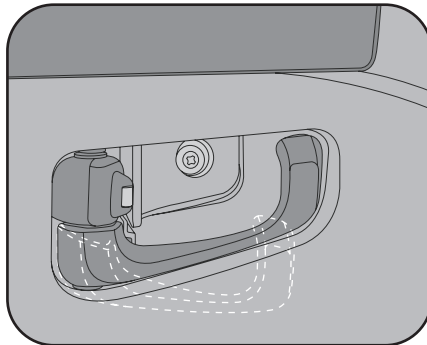
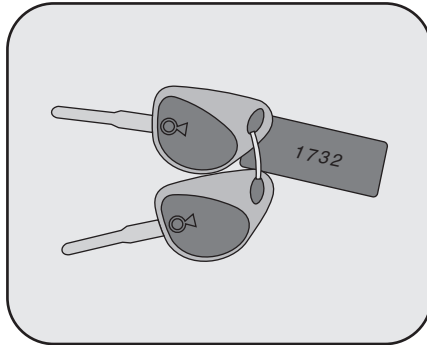
Engine Number

The engine Number is punched on left hand side face of crankcase adjacent to water pump in M-Hawk Engine.

Chassis Number

The chassis number is punched on the right side of the chassis close to the front right wheel, as shown in the diagram given alongside.

Keys and Door Locks



Keys

Your GOA comes with a set of two identical keys. The keys operate all locks in your GOA including those of the doors, ignition cum steering and fuel lid. We advise you to keep one of these keys at a safe place for emergency use (but not in the vehicle).

NOTE

A new pair of keys can be acquired through Mahindra Authorised Dealer by stating the key number provided on the tag in case of loss of original keys.

At the time delivery of vehicle customer should note down the Key Number provided on the Tag.



WARNING

Do not leave the ignition key in your vehicle especially when children are in the vehicle.

Never leave children & pet animals unattended inside the vehicle.

Opening the Doors from Outside

Unlock the door using the remote or key as applicable.

Place your hand behind the handle.

Pull the handle towards you to open the door.

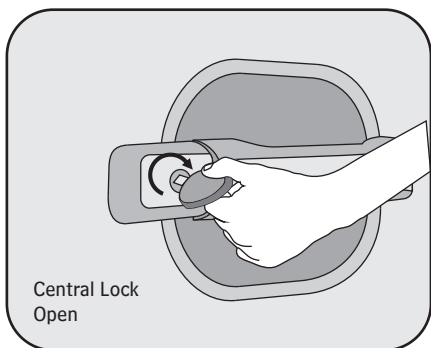
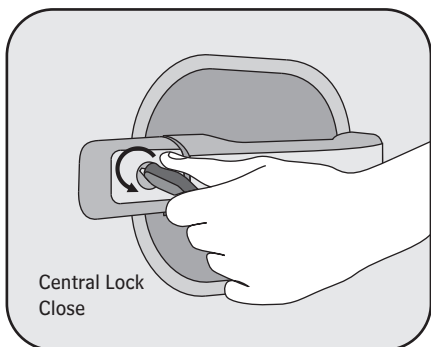
Opening the door from inside

Pull the lever as shown in the picture & push the door.



1.3.1

Keys and Door Locks



Locking all the doors from outside

To lock the all doors simultaneously from outside using coventional key, turn the key counter-clockwise on driver side door lock. All doors will get locked, but the vehicle will not ger armed.

Unlocking all the doors from outside

To unlock all doors simultaneously using coventional key, turn the key clockwise on driver side door lock.

Central Door Locking (If applicable)

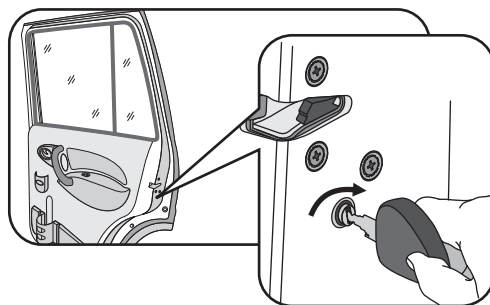
The central door locking system can be operated only from the driver's door. It can be activated from the outside with the key or from the inside with the door-locking lever. In case of failure in the vehicle's electrical system, both the front doors can be opened with the key. The driver inner door-lock lever needs to be depressed to lock all doors simultaneously, from inside.



Before opening the door, always look for and avoid oncoming traffic.



Keys and Door Locks



Child-Proof Lock

The rear doors are equipped with child-proof locks. To activate the locks, use the key and turn the red knob located on each door (close to the latch) clockwise before closing the doors.



1.3.3



Immobilizer System



Immobilizer System

Immobilizer is a major security device to prevent the vehicle being operated by an unauthorized person. An electronic Immobilizer prevents the vehicle being started unless it recognizes signals from the correct coded key.

1. This prevents the vehicle being driven by anyone not in possession of vehicle coded ignition key.
2. The vehicle is automatically protected with in a few seconds after the key is removed from ignition. If the vehicle does not recognizes the ignition key code engine check lamp will be ON/blink and the engine cannot be started.
3. The vehicle will not be protected until the key has been taken out of the ignition.
4. If there is a system operating fault, Engine check lamp will continues to flash or remains continuously ON after ignition has been switched ON.

Contact Mahindra authorized dealer for any repair or service required in immobilizer system.



WARNING

1. Any unauthorized work carried out on the engine immobilizer could be dangerous and work must be carried out by Mahindra authorized dealer.
2. In case of any key lost the same to be reported at service station immediately.
3. In an unlikely event of vehicle not starting even with right key. It is recommended to switch IGN OFF for minimum of 1 minute before trying to start the engine.
4. Do not modify, remove or disassemble the engine immobilizer system. Any unauthorised changes or modification can affect proper operation of the system and void your warranty.

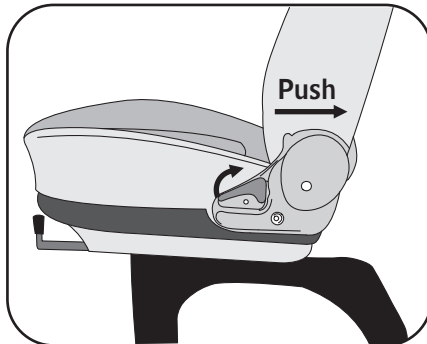
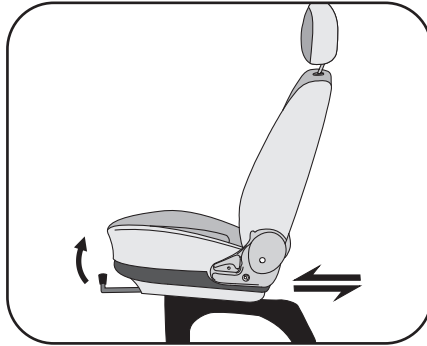


NOTE

In the event of loss of an authorized key, the vehicle should be immediately taken to an authorized M&M dealer, who will de-allocate the lost key. The vehicle is under risk from the time the key is lost till the lost key is de-allocated, as the "lost" key can open and start the vehicle.



Seating Adjustments



Moving the Front Seats Forward or Backward

To adjust the position of a front seat, pull up the lever underneath the front edge of the seat and slide either forward or backward. When you reach the desired position, release the lever. Rock the seat a little to ensure that its latch is secured properly.

CAUTION Adjustable seats and seat-backs that are not securely latched are dangerous. In a sudden stop or collision, the seat or seat-back could move causing injury. Make sure the adjustable components of the seat are locked properly.

CAUTION Do not drive the vehicle unless the occupants are properly seated. Persons not properly seated and/or properly restrained by seat belts can be severely injured in the case of emergency braking or a collision.

Adjusting the Angle of the Seat-back Rest

To adjust the angle of the seat-back rest, pull up the lever at the side of the seat and push the seat-back. When you reach the desired angle, release the lever. To return to the original position, pull up the lever and lean forward.

CAUTION The belts provide maximum protection when seats are in their normal upright position. So, do not recline your seats steeply. During the sudden braking or a collision, you can slide under the lap belt, if your seat is reclined to the unsafe level, and suffer serious internal injuries.



Seating Adjustments

CAUTION

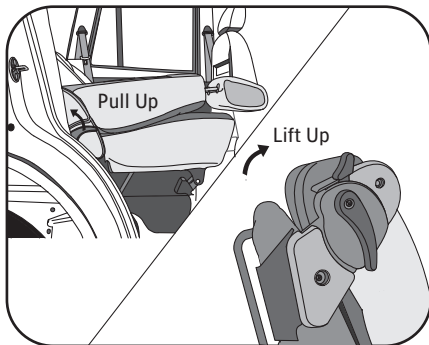
After adjustment, gently rock the seat to make sure it is securely locked. Unlocked / improperly locked seat back is dangerous as it can eject/throw the passenger during the sudden braking or collision.



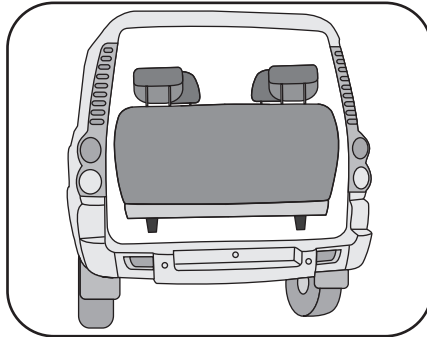
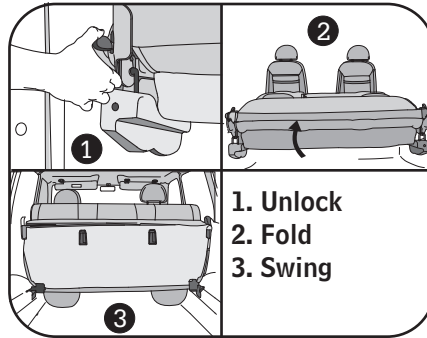
Adjusting the driver's seat while the vehicle is moving is dangerous. The driver could lose the control of the vehicle and have an accident. Adjust the driver's seat only when the vehicle is stopped.

Folding Second Row Seat for Entry into Third Row (if applicable)

Unlock the second row seat-back by either pulling the lever in the side (for entry) or pushing the lever at back (for exit). The seat-back collapses forward. Now, push the small lever backward / pull the rear-strap to lift the base of the seat up forwards until it is reached in vertical position. To keep the seat-back in folded position, the strap end (which is kept in small pocket in the seat bottom) can be hooked at the head restraint rod. Unhook the strap, when the seat needs to be unfolded & put the strap in the pocket. Swing the whole seat-back and downward. Lift the seat-back until it is locked.



Seating Adjustments



Folding the Front Facing Third Row Seat (if applicable)

To fold the front facing third row seat, unlock the seat-back by pushing the lever at the backside. To fold the seat-back completely, swing the seat up forwards until it is locked in vertical position against the second row seat. The seat can be removed by pulling it out from the front pivot bracket. To unfold, swing the whole seat-back and downward. Lift the seat-back until it is locked.

The folded 3rd row Front facing seat can be secured with 2nd row seat by running the Velcro strap in hook provided in the 2nd row seat.

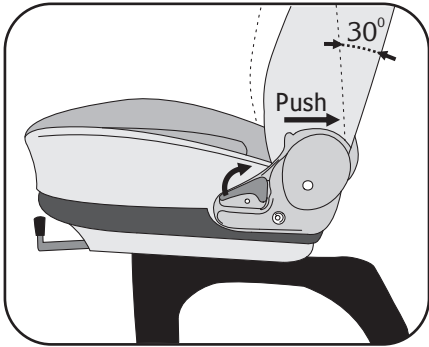
Folding the Side Facing Third Row Seat (if applicable)

To fold the side facing third row seat

- Fold the seat
- Swing the seat cushion fully up
- Fold the seat leg completely down
- Secure the seat by running the velcro strap through the hook provided on the back of the seat cushion and sticking the velcro.



Seating Adjustments

**Correct Seating Posture/Arrangement**

The driver should be able to hold the steering with slightly bent arms. The driver's feet should also be slightly bent so that the pedals can be pressed fully to the floor. The driver should sit with the backrest at an angle not more than 30 degrees.

Seating Adjustments

Seat Belts

At least once each month, inspect the seat belt webbing for any cuts, tears, or other signs of wear (such as fraying along the edges). Also inspect the anchors, retractors, and buckles to be sure they are tight and operational.

General Warnings and Instructions

- Never drive the vehicle without wearing the seat belt, no matter how short the trip. In an accident, an unbelted passenger becomes a projectile, thereby causing death or serious injury to himself.
- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.
- Never travel in the bed of the pickup truck. Falling from the bed, even at low speeds, can result in serious injuries or death.
- Some people believe that wearing a seat belt will lead to entrapment in the vehicle after an accident. However, your chance of surviving the initial impact, being able to unbuckle yourself and escaping from the vehicle is much greater if you are belted.
- Airbags are only supplemental restraint systems. They work effectively only in conjunction with seat belts. You

must always wear a seat belt even if your vehicle has airbags. An airbag can actually injure an unbelted passenger. See the chapter on airbags for additional information.

- In order to be properly buckled, you must always sit up straight and keep your feet on the floor in front of you. The lap part must be worn low and tight on your hips, just touching the top of your thighs. While fastening the seat belt, the shoulder part of seat belt must pass over your chest and shoulder. It must never touch your neck or face. The belt must be flat against your body and not twisted in any way. Nothing, such as an arm rest, a pocketbook, bulky winter clothing, etc., should be between you and the seat belt. Improper wearing of a seat belt will not protect you in an accident. In fact, you could seriously get injured or killed if you do not properly wear your seat belt.
- Please be aware that any unsecured item in your vehicle, such as your pet, unsecured child restraint system, or a laptop can become a projectile in the event of an accident or sudden stop, causing injuries to occupants in the vehicle.
- Passengers should not move out of or change seats while the vehicle is moving. A passenger who is not wearing a seat belt can be thrown against the inside of the vehicle, against other occupants, or out of the vehicle during an



1.4.5



Seating Adjustments



event of crash or emergency stop.

- Do not use any accessories on seat belts. Devices claiming to improve occupant comfort or reposition the seat belt can reduce the protection provided by the seat belt and increase the chance of serious injury in a crash.
- An accident can damage your seat belt system, even if the accident is "minor". Please have your authorized Mahindra dealer inspect the seat belt system after an accident.
- Once the seat belt pretensioners are activated; you will need to replace driver and front passenger seat belts, buckle assemblies & pretensioners. Please see your authorized Mahindra dealer.
- Seat belt systems can be prone to abuse (are not indestructible). They must be handled with care to avoid damage.
- Keep the belts clean and dry. Belt retraction may become difficult if the belts and webbing are soiled. If they need cleaning, use a mild soap solution or lukewarm water. Never use bleach, dye, or abrasive cleaners. These chemicals will severely weaken the belts.
- Never modify the seat belt system in any way.

1.4.6



Seat belt usage is necessary to:

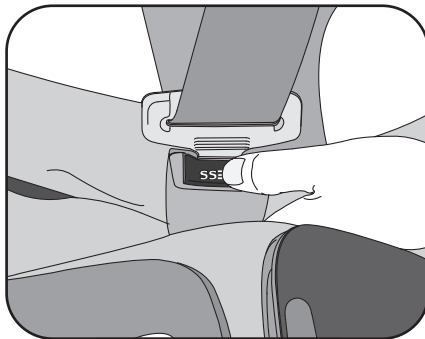
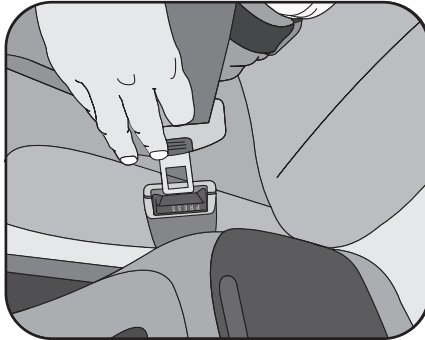
- Keep the passenger away from an inflating airbag.
- Reduce the possibility of injuries during an accident that is not designed for airbag inflation, such as rollover or rear impact.
- Reduce the possibility of injuries in frontal collisions that are not severe enough to activate the airbags.
- Reduce the possibility of being thrown from your vehicle.
- Reduce the possibility of injuries to lower body and legs during an accident.
- Hold the driver in a position which allows better control of the vehicle.



1) The driver or front passenger who is too close to the steering wheel or dashboard during airbag deployment can be killed or seriously injured

- 2) The driver must sit as far back as possible from the steering wheel while still maintaining control of the vehicle.
- 3) The front passenger sits as far back as possible from the dashboard.
- 4) All vehicle occupants be properly restrained by the seat belts.

Seating Adjustments



Seat Belts

It is against the law and for your own safety, we strongly urge you to strap on your seat belts while driving. Do not use one seat belt for more than one person. Ensure that the seat belts are not slack or twisted when strapped across. Before driving off, first ensure that your driving position is correct and then adjust your seat belt to provide maximum protection.

Fastening Seat Belts

Pull the seat belt over your shoulder and across the chest. Insert the metal tongue plate into the buckle. An audible click indicates that the belt is locked securely. Make sure that each belt uses the correct buckle meant for each seat.

To release the belt, depress the red button on the buckle, and let the belt rewind into its reel smoothly and completely.

Always wear your seat belt while travelling in the vehicle and make sure all the occupants are properly restrained. Not wearing the seat belt while driving is extremely dangerous.

- Do not use the seat with malfunctioning/improper seat belts system. It cannot protect the occupant from injury. Get the seat belt problem fixed by your Mahindra authorised dealer immediately. A used/damaged seat belt system cannot provide adequate protection in the event of collision/accident. Do not use a twisted seat belt as it may injure the user.





Seating Adjustments



Seatbelts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

- Seatbelts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.
- Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.
- It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.
- Belts should not be worn with straps twisted.
- Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.



No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

CAUTION

Be careful not to damage the seat belt webbing or hardware. Take care that they do not get caught or pinched in the seat or doors. Never use one seat belt for more than one person at a time.

- Pull the belt from its reel steadily. It may lock up if wrenched from the reel. The belts provide maximum protection when seats are in their normal upright position. So, do not recline your seats steeply. During sudden braking or a collision, you can slide under the lap belt, if your seat is reclined to an unsafe level, and suffer serious internal injuries.

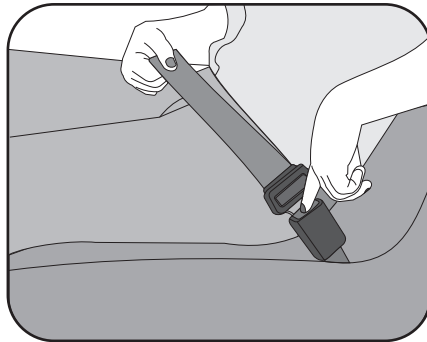


Wear the lap seat belt snugly and as low as possible. A lap belt worn too high can be dangerous. In the event of collision/accident, this may concentrate the impact force on the abdominal area causing serious injury.





Seating Adjustments



Checking Seat Belt Operation

Your seat belt retractors are designed to lock belt movement in the following conditions

- When the belt is pulled quickly from the retractor
- When the vehicle slows down rapidly.

To check the condition of seat belt operation, grasp the shoulder belt and pull quickly forward. The retractor should lock and restrict further belt movement. If the seat belt does not lock during these checks or if you have any question on seat belt operation, contact a Mahindra Authorised dealer.

2-Point Lap Seat Belts (2nd Row & 3rd Row Seats)

To fasten the seat belt

Insert the tongue into the buckle until it snaps

To lengthen, hold the tongue at a right angle to the belt and pull on the belt. To shorten, pull the free end of the belt away from the tongue.

Position the lap belt on the hips as low as possible.

To unfasten

To unfasten the belt, press the button on the buckle.





Seating Adjustments



CAUTION

Use a child restraint system only if the child is not big enough to properly wear the seat belts. Otherwise use the regular seat belt instead of the child restraint system. In models with rear seat belts - seat the child in the rear seat and use the seat belt. According to accident statistics, children are safer when properly restrained in the rear seat than in the front seat. Always secure a child in a proper child restraint system in accordance with age and size of the child as recommended by the child restraint system manufacturer.

CAUTION

If child restraint system regulations exist in the country where you reside, please contact nearest Mahindra dealer for the installation of the child restraint system in the front seat. Make sure that you have complied with all the installation instructions provided by the child restraint system manufacturer and that the system is properly secured.

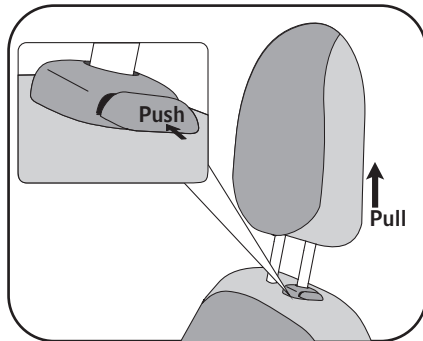
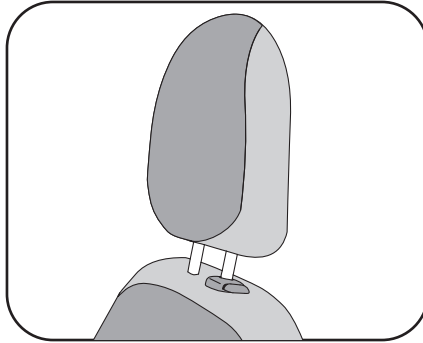


Do not allow children to stand up or kneel on either the rear or front seats. An unrestrained child could suffer serious injuries during emergency braking or collision. Also, do not allow children to sit on your lap as it does not provide sufficient restraint.

Pregnant women and injured persons need to consult their doctor for specific instructions on how to wear the seat belt.



Seating Adjustments



Head Restraint

To increase height of the head restraint, pull it out to the desired position. To lower the head restraint, depress the locking button and push the restraint down. After adjustments, ensure that the head restraint is locked in place.

Adjust the head restraint so that it is at the same level as your head. Never adjust the head restraint to the level of your neck.



Do not adjust the head restraint while driving the vehicle. With no support behind your head, your neck could be seriously injured in a collision. Always drive with the head restraints properly inserted.

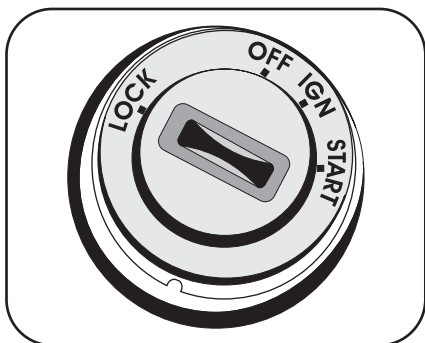
Head Restraint Removal

The head restraint can be pulled out completely by depressing the locking button while pulling the restraint out.





Ignition Switch and Steering Lock



Ignition Switch cum Steering Lock

It has the following four key positions

LOCK : Ignition OFF; Steering is locked after the key is removed

OFF : Steering unlocked; Ignition and all other main electrical circuits are disabled

IGN : Ignition ON; All electrical circuits enabled. Look for the illuminated warning lights before engine is started.



Preferably select this position even when the vehicle is being towed.

1.5.1



START : This is a momentary position in which the switch cranks the engine. Release the key as soon as the engine starts. Holding in this position more than necessary will result in damage to starter and other engine components.



If turning the key is difficult, jiggle the steering wheel from side to side.

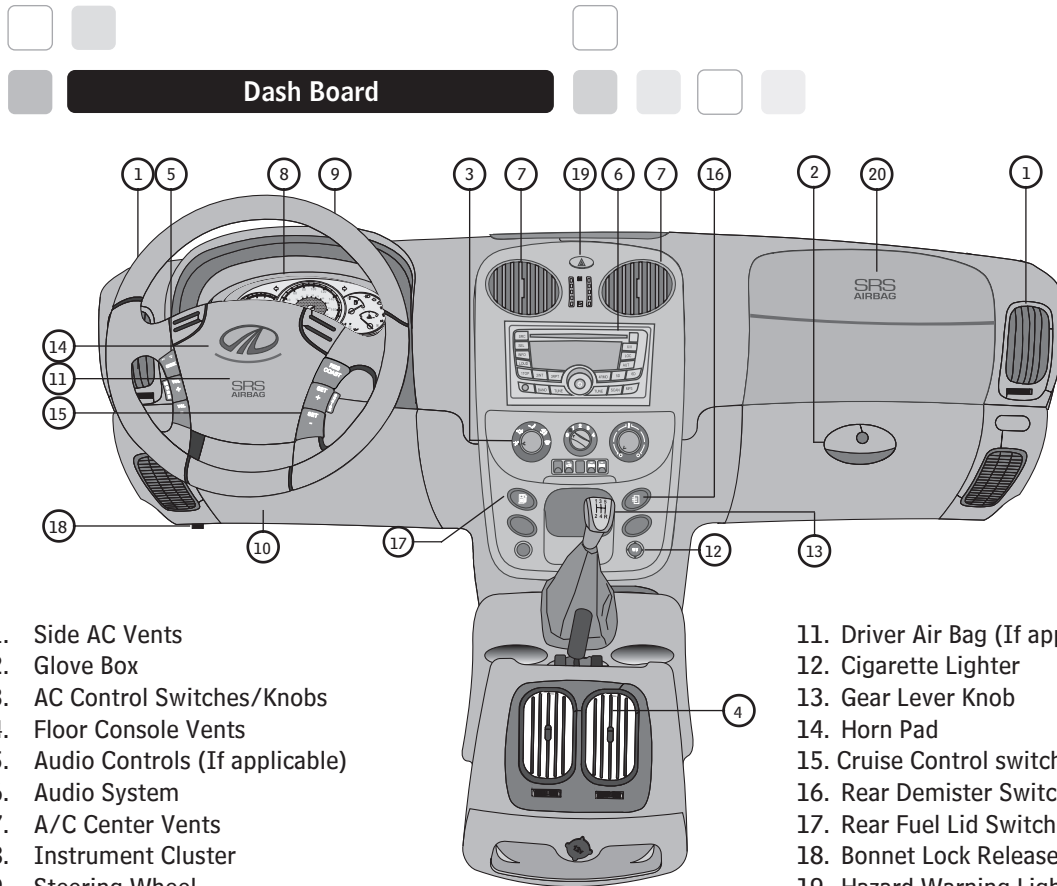
- The key can be removed only in the LOCK position. When the key is removed, the steering column lock is activated and the steering wheel cannot be turned.



Never return the key to the LOCK position or try to remove the key, when the vehicle is in motion. Removing the key allows the steering wheel to lock. You will lose the control of the vehicle and may cause a serious accident. Remove the key only when the vehicle is parked.

An illuminator ring is provided on the face of the ignition lock to locate and insert the key into it during night time. The ring will illuminate the moment the driver's door is opened and will remain glowing till the door is closed. Once all doors are closed properly, the lights will start dimming and will go off after few seconds.

The ring will illuminate the moment the driver door is opened and will remain glowing till the door is closed.

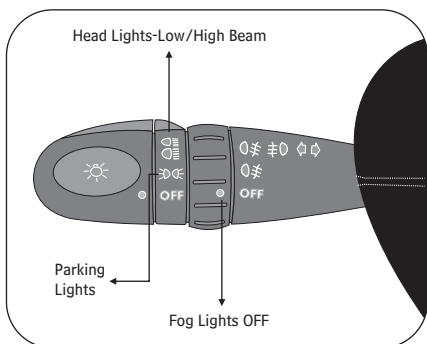
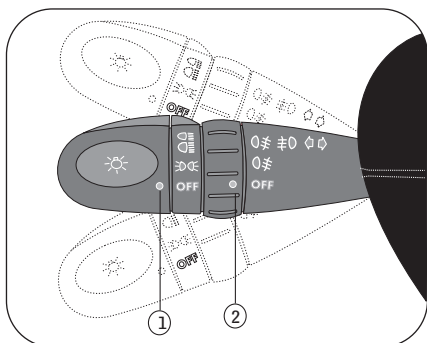


1. Side AC Vents
2. Glove Box
3. AC Control Switches/Knobs
4. Floor Console Vents
5. Audio Controls (If applicable)
6. Audio System
7. A/C Center Vents
8. Instrument Cluster
9. Steering Wheel
10. Instrument Panel Fuse Box

11. Driver Air Bag (If applicable)
12. Cigarette Lighter
13. Gear Lever Knob
14. Horn Pad
15. Cruise Control switches (If applicable)
16. Rear Demister Switch
17. Rear Fuel Lid Switch
18. Bonnet Lock Release Lever
19. Hazard Warning Light Switch
20. Passenger Air Bag (If applicable)



Combination Levers



1.7.1



Combination Lighting Switches

Lighting Control Lever

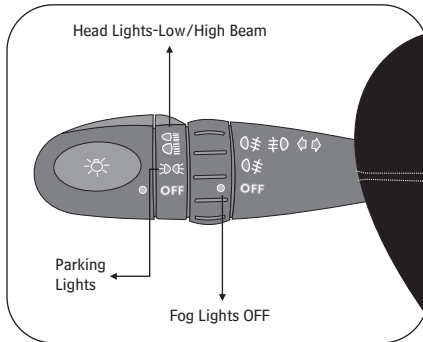
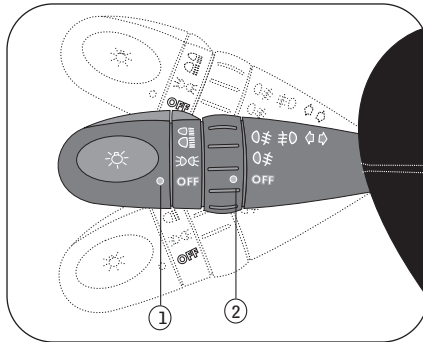
Head lights & Parking Lights

- **Lights Off:** Stalk end switch **1** is in neutral position
- **Parking Lights :** Turn the stalk end switch **1** upwards to the first position until the ☼ is aligned opposite mark **1**
- **Headlight Low Beam:** Turn the stalk end switch **1** upwards to the second position until the ☼ is aligned opposite mark **1**
- **Headlight High Beam:** With the stalk end switch **1** in the second position, simply push the control lever forward. Headlight High Beam Indicator in the instrument cluster is illuminated when headlights are on high beam.
- **Headlight Flash :** Pull the stalk up towards the steering wheel. Flash will work even when the headlight is not on. Headlight High Beam an Indicator in the instrument cluster is illuminated when headlight flash is used.

CAUTION

Using bulbs with units of higher output capacity/ wattage is illegal and may damage your vehicle electrical system.

Combination Levers



Front & Rear Fog Lights (If applicable)

- Lights Off: Inner rotary switch 2 is in neutral position.
- Front Fog Light(s): Turn the inner rotary switch 2 upwards to the first position until the ☼ is aligned opposite mark 2.
- Rear Fog light(s) : Turn the inner rotary switch 2 upwards to the second position until the ☼ ☼ is aligned opposite mark 2. Now both front & rear fog lights glow simultaneously.

Operation of the fog lights depends on the parking or headlights selected and an indicator will light up in the instrument cluster



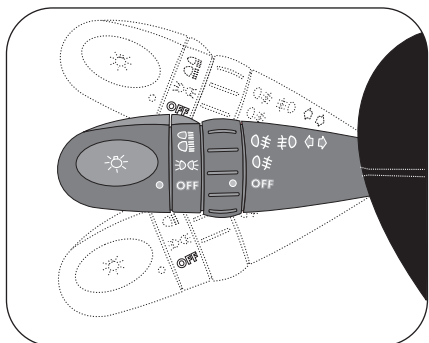
The rear fog light will get switched on only when the parking / headlights are on.



Use the fog lights only in low visibility conditions. Remember to switch off the rear fog light when it is no longer needed to avoid inconvenience to other road users.



Combination Levers



Turn Indicators

- Right Direction Indicator: Push the lighting control stalk clockwise till you hear an audible click
- Left Direction Indicator: Push the lighting control stalk counter-clockwise till you hear an audible click

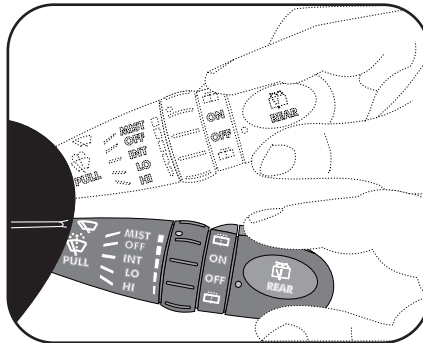
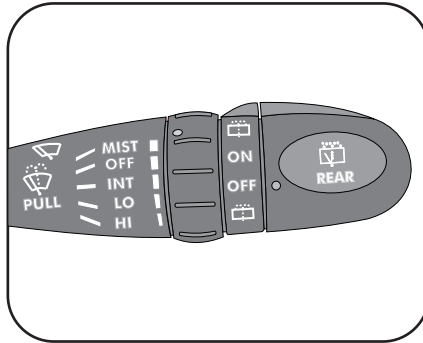
The stalk automatically returns after you make a turn. But after lane change you may have to do it manually. If the indicator light continues to flash after a turn, manually return the stalk to its original position.

If the turn signal indicator lights in the instrument panel flashes faster than normal, it indicates a turned indicator bulb is burned out.



To prevent the battery from being discharged, do not leave the lights ON for a long time when the engine is not running.

Combination Levers



Wiper & Washer control Lever

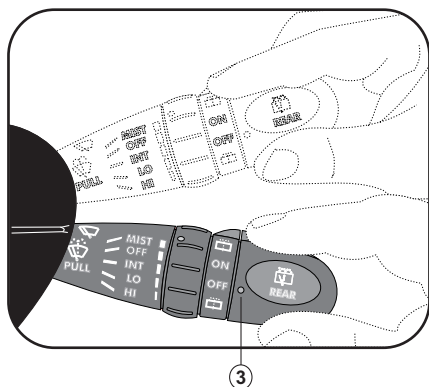
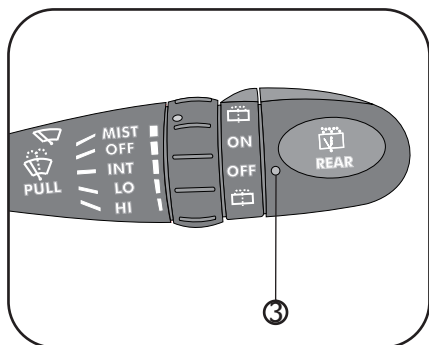
Front wipe / Wash

Wiper/Washer Control Lever: Wash/Wipe functions can be activated with the ignition key at the IGN position.

- Flick-wipe (MIST): Push the stalk up from the normal position for wipe only and it operates as long as stalk is in that position.
- OFF: stalk is in normal position
- Intermittent Wiping (INT): Push the stalk down to the first position
- Low Speed Wiping (LO): Push the stalk further down to the second position
- High Speed Wiping (HI): Push the stalk again down to the third position
- Wash /Wipe (PULL & ): The windshield washer & wiper operates as long as the stalk is pulled on toward the steering wheel. Wiping is done after few seconds of washer fluid spraying and wiping will continue for few seconds after releasing the switch. The washer will work on all positions of stalk. After a few seconds of the post wipe, the wiper will operate once to dribble down the washer fluid remains.



Combination Levers



1.7.5



Rear Wipe / Wash

Wash / Wipe (W): The rear windshield washer & wiper operates three to four times or as long as the stalk end is turned down from 'OFF' position, after the washer fluids spray starts. Wiping will continue for few seconds after releasing the switch.

Off: Stalk end switch 3 is in neutral position

Rear Wiper (ON): Turn the stalk end switch 3 upwards to the first position until it is aligned opposite mark 'ON'

Wash /Wipe (W): The washer fluid will be sprayed onto the rear window and wiper operates as long as the stalk end 3 is turned up further from 'ON' position. Wiping is done after washing and wiping will continue for few seconds after releasing the switch.

If you switch off the ignition before switching off the wind screen wiper the blades will stop at random on the wind screen. Once the ignition is turned ON again wiper will return to the park position.



Do not operate the wipers when the wind shield is dry. It may scratch the glass.



Using wind screen washer in freezing temperatures could be dangerous. The washer fluid could freeze on the wind screen and may block your vision result in an accident. Use anti-freeze fluid and warm the wind shield before using the washer.



Adjustable Intermittent Wiping (If applicable)

The intermittent wiping operation timing can be adjusted according to the requirement based on the intensity of rain & drizzling. Follow the below procedure to adjust and set the time between one wipe operation to next wipe operation.

To set the time delay :

- Switch ON the intermittent wiper and switch it OFF during (or) after wiper movement. And again switch ON the intermittent wiper to set the delay time according to the requirement. The time between the switch OFF and ON (to intermittent) will get registered as the wiper operating cycle time.
- The time delay can be set anywhere between 1 second to 60 seconds
- The wiper movement time will remain same in all time settings. Only the delay can be varied from 1 second to 60 seconds.

To set the default time :

It will return to the normal (default) time setting, if the wiper is not operated for 5 minutes (or) the delay time is more than 60 seconds or if the ignition is switched OFF.

If you switch off the ignition before switching off the windscreen wiper the blades will stop at random on the windscreen. Switch on the ignition and just move wiper stalk to 'MIST' position to return the wipers to the park position.



Do not operate the wipers when the windshield is dry. It may scratch the glass.



To prevent the battery from being discharged, do not leave the lights ON for a long time when the engine is not running.

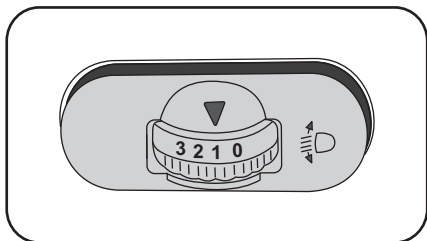


Using windscreen washer in freezing temperatures could be dangerous. The washer fluid could freeze on the windscreen and may block your vision resulting in an accident. Use anti-freeze fluid and warm the wind shield before using the washer.





Headlight Leveling System



Headlight Leveling System

When Vehicle is fully or either partially loaded, it will have upward inclination disturbing the headlight aiming. To bring the low-beam back to its original position we can use this system. The correct headlight setting provides the best possible visibility to the driver with out dazzling other road users.

The headlights can only be adjusted when the low beam is switched on.

Headlight low beam can be adjusted from driver seat with the help of switch shown in above picture. This switch is located on driver side instrument panel just below side A/C vent. This switch has Four positions marked as 0,1,2 & 3.

Please select the suitable switch position as per following table.

Switch Position	Vehicle loading condition
0	Driver / Driver with Front passenger
1	Driver + Front passenger + Rear seat occupied
2	All seats occupied
3	All seats occupied with luggage or Driver with luggage at extreme rear side





Guiding Lights

Dimming Interior light & illumination Ring on Ignition Key ring (if applicable)

The guiding lights feature helps you when you try to enter or exit the vehicle.

Illuminator ring is provided on the face of ignition lock to locate and insert the key into it during night time.

The front interior lamp will also get activated along with the above lights during this cycle.

During Remote Unlocking (If applicable) :

The interior light & Illumination ring will glow instantaneously with full intensity for few seconds, the moment vehicle doors are unlocked through remote key, then all lights start dimming and go OFF.

During getting in / out of vehicle :

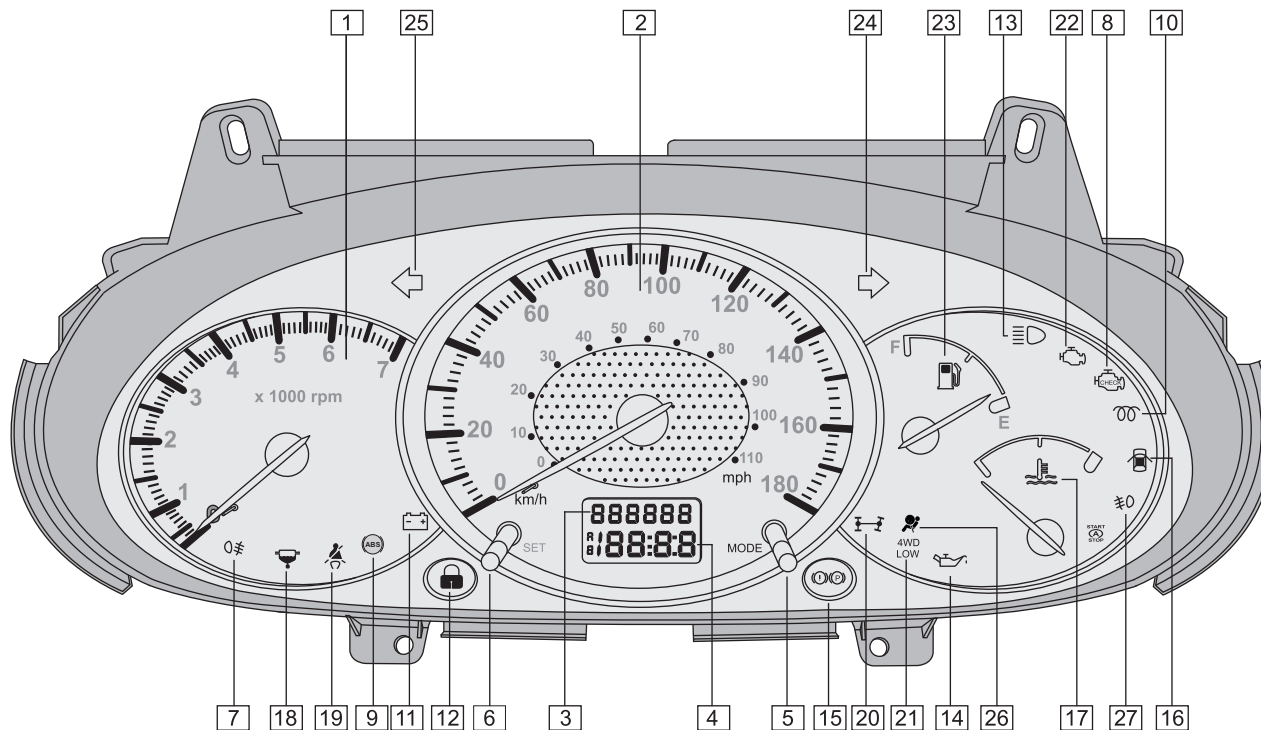
The interior light & Illumination ring will glow the moment any door is opened and will remain glowing till the door(s) is closed. Once all the doors are closed properly, the lights will start dimming after few seconds and go OFF.

Front interior roof light will light-up when the switch is in door-mode.

This feature cannot be permanently / temporarily disabled / enabled.



Instrument Cluster





Instrument Cluster



1. Tachometer
2. Speedo Meter
3. Odometer
4. Trip Meter A, Trip Meter B & Clock
5. Knob, Mode selection - Trip Meter A, Trip Meter B & Clock
6. Knob, Set - Trip Meter A, Trip Meter B & Clock
7. Rear Fog Lamp Indication
8. Check Engine Lamp
9. Anti Lock Brake System
10. Glow plug indication
11. Battery Charging Warning Light
12. Car Security System Status

13. Head Lamp High Beam Status
14. Low Oil Pressure Warning light
15. Parking Brake ON & Low Brake Fluid Warning Lamp
16. Door Open warning Light
17. Engine Coolant Temperature Gauge & High Temperature Warning Light
18. Water in Fuel Indication
19. Driver Seat Belt Warning
20. Four Wheel Drive High (for 4WD Vehicles)
21. Four Wheel Drive Low (for 4WD Vehicles)

22. Malfunction Indication Lamp (MIL)
23. Fuel Gauge
24. Right Turn Indicator
25. Left Turn Indicator
26. Air Bag Warning Indicator (if applicable)
27. Front Fog Lamp Indication



1.8.2



Instrument Cluster



If the indicator comes on	Do this
 Brake Light	If parking brake is off, stop immediately, and check brake fluid level / contact Mahindra Authorised Dealer
 Battery	Stop and check
 Engine Oil	Stop and check
 MIL	Take the vehicle to Mahindra Authorised Dealer
 ABS	Take the vehicle to Mahindra Authorised Dealer
 Door Open	Close the doors
 Water in Fuel	Drain the water





Odometer & Trip meter
'A' Display



Odometer & Trip meter
'B' Display



Odometer & Digital Clock
Display

1. Tachometer : Indicates Engine speed in thousands of revolutions per minute (RPM).

NOTE Do not over rev the engine. Operating the engine at high RPM may cause severe engine damage.

2. Speedometer : Indicates speed of the vehicle.

3. Odometer : Top row of LCD screen shows / records the distance traveled in kilometers at minimum unit of 1 km and it displays only when ignition key is on.

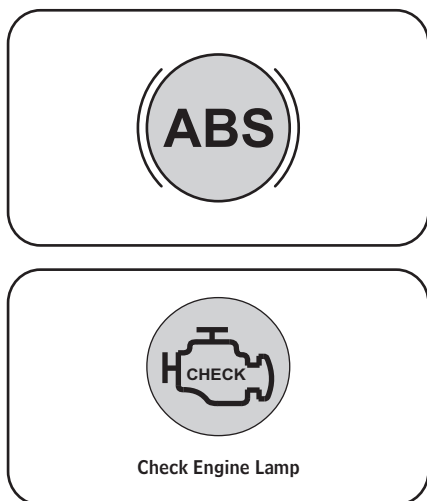
4. Trip meter & Clock: Second row of LCD screen shows the distance traveled, since the last time it was set to zero, either on individual journeys or between the fuel fillings depending upon the settings. Alternatively second row will show the clock in the 12 hour format.

5. Knob, Mode selection - Trip Meter 'A', Trip Meter 'B' & Clock : The second row will show either the Trip meter 'A' or Trip meter 'B' (or) Clock at a time. The display from trip meter 'A' to trip meter 'B' to Clock can be changed by gently pressing the Mode selection knob once. When the Trip meter is in display, alphabetical letter 'A' (for trip meter 'A') or 'B' (for trip meter 'B') will also be displayed accordingly (as shown in the picture). The trip meters can show up to 9999 kms.





Instrument Cluster



1.8.5



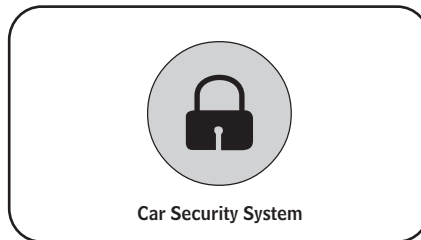
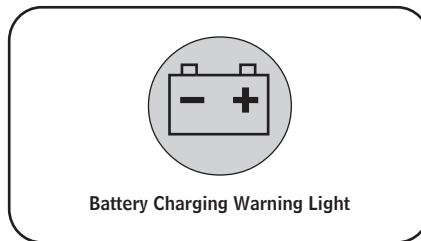
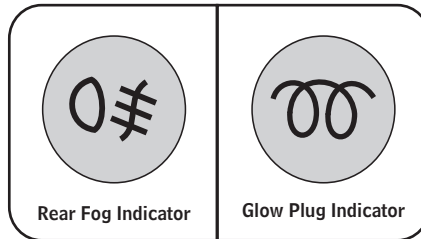
6. Knob, Set - Trip Meter 'A', Trip Meter 'B' & Clock: Display Settings: Press the Set-knob for more than one second to set the zero on Trip meter 'A' & Trip meter 'B', when the particular Trip meter displayed. **Clock Setting :** When clock is displayed, pressing the SET knob for 3 seconds will cause the displayed time to flash, meaning it is in clock setting mode. While the clock data is flashing, pressing and releasing the SET will toggle between minutes & hours. While the numbers are flashing, pressing the MODE switch will advance the displayed number. While the numbers are flashing, if no button is pressed for 5 seconds the current values displayed are stored and the display stops flashing.

7. Anti-lock Brake System Warning Lamp (ABS) : The ABS warning light comes on when the ignition key is turned to the IGN position, and goes off after a few seconds. When the ABS warning light is on / blinking continuously (and the brake system warning light is off), contact the nearest Mahindra Authorised dealer.

8. Check Engine Lamp : When the lamp lights up and glows continuously it indicates an Engine Fault (other than EMS). Arrange for checking at the nearest Mahindra Authorised Dealer immediately.



Instrument Cluster



9. Rear Fog Indicator: The rear fog lamps can only be switched ON along with front fog lamps.

10. Glow plug indication : when 'ON' indicates that pre-heating is on. It goes out when the glow plug is warm. Do not crank the engine when Glow Plug is ON, to avoid excessive load on battery & ensure effective starting.

11. Battery Charging Warning Light : Lights up when the ignition switch is in the IGN position. Goes OFF as soon as the engine starts. If the light remains ON even after the engine has been started, it indicates that the battery is not being charged or malfunction of the alternator. In this case, park the vehicle safely at road side and check the drive belt for looseness / breakage. If drive belt is okay, switch off all unnecessary electrical equipment and contact a Mahindra Authorized Dealer immediately.



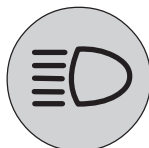
Do not continue driving if the engine drive belt is broken or loose. This will cause engine overheating & poor braking.

12. Car Security System Indication lamp : Will give status of the car security system on armed / unarmed / intrusion etc. by flashing at various intervals.



1.8.6

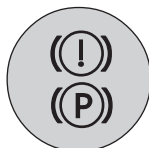
Instrument Cluster



High Beam



Low Engine Oil Pressure



13. Headlight High Beam Indication: Is illuminated when headlights are on high beam or when headlight flash-to-pass is used.

14. Low Engine Oil Pressure warning light : Lights up when the ignition switch is in the IGN position. Goes OFF as soon as the engine starts. If the light remains ON even after the engine has started, or comes ON while driving, stop immediately, and check the engine oil level. If low, add engine oil to the MAX level and check the light again. If still ON contact a Mahindra Authorized Dealer immediately.

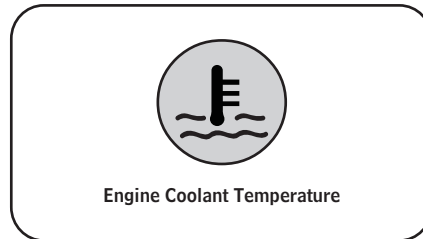
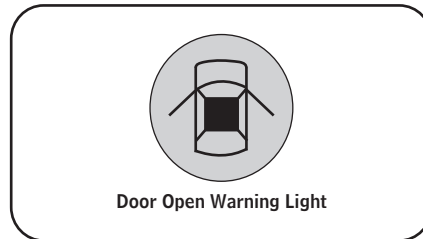


Do not run the engine with low engine oil pressure warning light ON. Otherwise it may damage the engine.

15. Parking Brake ON & Low Brake Fluid warning lamp : The (P) parking light and, the low brake fluid warning (!) light, are illuminated as long as the parking brake is applied. If light (!) does not go off after releasing the parking brake, there may be problem with the vehicle braking system.



Do not drive the vehicle if the (!) light is illuminated even after releasing the hand brake or if it illuminates while driving. Add brake fluid to bring the level up to the 'MAX' mark. If the problem still persists, avoid driving and have a Mahindra Authorised Dealer check/correct the braking system as soon as possible.



16. Door Open warning Light : Lights up when any of the doors are open and ignition key is in IGN position. The lamp goes off when all the doors are closed properly.

17. Engine Coolant Temperature Gauge : Indicates the temperature of the engine's coolant. At normal operating temperature, the needle may point anywhere across the band. When the needle is continuously in the red zone of the temperature gauge / lamp glow continuously indicates engine overheating.

Engine can get overheated during demanding operating conditions such as:-

- Driving or towing up a long gradient during hot weather.
- Off-road driving.
- Driving in stop-and-go traffic for long.
- Abruptly reducing speed or stopping after high speed driving or towing.
- Idling for long duration with air conditioner ON.

During these or similar demanding operating conditions, in order to prevent or delay further engine overheat, the engine management system may switch the air conditioner OFF and reduce engine torque intermittently. Higher the coolant temperature, higher will be the extent of torque reduction. In extreme cases, the engine management system shuts the engine OFF to protect it.

Instrument Cluster



Water in Fuel Filter



Seat Belt Warning

However if engine is overheated repeatedly even in normal operating conditions, get the vehicle checked by an authorized Mahindra dealer as soon as possible.



Do not continue driving with an overheated engine. It may cause damage to the engine.

18. Water in Fuel Indication : When water accumulated in the Fuel Filter reaches the maximum permissible limit, the indicator gives warning to remove water and clean the fuel filter. (Instruction for how to drain the water given in the Self Maintenance Section or contact a Mahindra Authorised Dealer.)

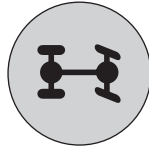


Continued driving with water accumulation in the fuel filter will cause damage to the fuel pump/other fuel system components.

19. Seat Belt warning : The light reminds you to fasten seat belts & it will light up when the driver has not worn the seat belt with the ignition key is IGN position/when vehicle is in motion. The lamp will remain illuminated until the seat belt is fastened properly.



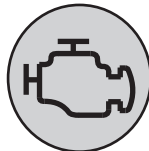
Instrument Cluster



4WD High Indicator Light



4WD Low Indicator Light



Malfunction Indication Lamp (MIL)

20. Four Wheel Drive High  (For 4WD Vehicles) : Indicates that the vehicle is driving in the 4-Wheel Drive Mode in high gear. Driving in this mode gives more traction while driving on cross-country Roads.

CAUTION

Driving the vehicle in 4WD Low / High mode on dry, hard surface may cause damage to the driveline, excessive tyre wear, poor fuel economy & unnecessary noise, hence not recommended.

21. Four Wheel Drive Low  (For 4WD Vehicles) : Indicates that the vehicle is running in the 4-Wheel Drive Mode in low gear. Driving in this mode gives maximum traction while driving on all adverse conditions.

NOTE

If both tell-tales of 4WD are ON, even though the vehicle is in 2WD, then customer should contact the authorised dealer immediately.

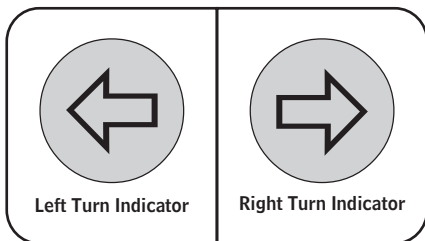
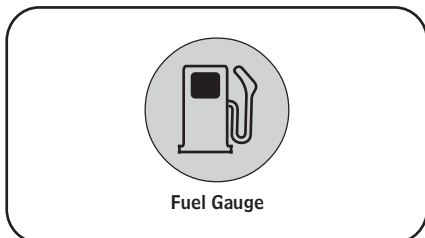
22. Malfunction Indication Lamp (MIL) : As soon as the ignition key is switched ON, the lamp lights up and goes OFF in few seconds indicating normal status. The lamp will blink / glow continuously indicating the presence of fault in EMS. The vehicle needs attention by Mahindra Authorised Dealer immediately.



1.8.10



Instrument Cluster



23. Fuel Gauge: Indicates the approximate level of fuel in the tank. When the tank is nearly full, the needle will be at "F" and when the tank is nearly empty, the needle will be at "E". When needle touches the RED mark, it indicates that there is minimum quantity of fuel left in the fuel tank. Refuel as soon as the needle touches the RED mark. It is a good idea to keep the tank over $\frac{1}{4}$ full.

NOTE

On inclines or curves, due to movement of the fuel in tank, the fuel gauge needle may show slightly lower or higher levels than usual.

24/25. Turn Indicator : Flashes when the indicator lamps are operated or hazard switch is turned on. A sudden increase in the rate of flashing indicates failure of one of the indicator bulbs.





26. Supplement Restraint System (SRS) – Air Bag (If applicable)

Your GOA is equipped with Supplementary Restraint System. The SRS system consists of Driver Air Bag (DAB) located in the centre of steering wheel and a Passenger Air Bag (PAB) located above the glove box compartment. AirBag's location can be identified by 'SRS AIR BAG' embossed on the air bag module cover.

The purpose of air bag is to provide an additional restraint that is designed to work in conjunction with seat belts to reduce the severity and extent of injuries to the occupants in case of frontal collisions. The deployment of air bag depends upon the severity and direction of the frontal collisions.

CAUTION

- The airbags in the vehicle are designed to be a SUPPLEMENT and not a replacement for the seat belts. For maximum protection, wear seat belts at all times.
- The front airbags are designed to prevent serious injury. Deployment occurs very quickly and with considerable force. During normal deployment and depending on variables such as seating position, one may experience abrasions, bruises, swellings, or other injuries as a result from deployment of one or both of the airbags.
- When installing any accessory equipment, make sure that the front airbag system and wiring is not damaged. Any interference



Instrument Cluster



in the system could cause malfunction. It is recommended that to use only Mahindra approved accessories and get them installed by Mahindra Authorised Dealer only.

- The occupant's back must be as upright as comfort allows and be against the seat back with the seat belt properly fastened.

SRS Components and Functions:

The SRS system consists of the following components

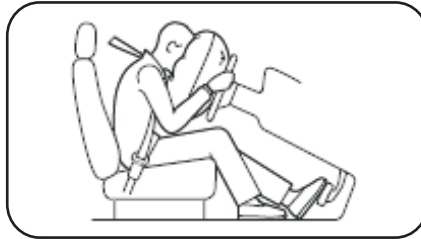
1. Driver side Air Bag Module
2. Passenger side Air Bag Module
3. Air Bag ECU
4. Air Bag Warning indicator (On Instrument Cluster)
5. Wiring Harness
6. Driver Seat belt Pre tensioner and Load limiter
7. Passenger Seat belt Pre tensioner and Load limiter

The crash sensors in the air bag ECU continuously monitor to determine if the frontal impact is severe enough to deploy the air bags. When an impact of sufficient force occurs, the air bag ECU sends an electrical signal to the air bag modules which in turn rapidly ignites the energetic material and inflates the air bag. The inflated airbag deploys out of steering wheel and glove box cover. As the entire deployment of air bag happens in less than a second, in combination with seat belts, it slows down the driver's or





Instrument Cluster



passenger's forward motion, thus reducing the risk of head or chest injury. The air bags deflate quickly thru the pores in the air bag cushion. Therefore air bag is not a substitute of seat belts. To maximize your protection always wear seat belts. The SRS can function only when the ignition key is 'ON'.

The SRS front air bags are not designed to inflate for side or rear collisions, roll over or if it is involved in low speed frontal collision.



When the airbag is deployed, there may be a loud noise and fine dust will be released through the instruments. These conditions are normal and not hazardous. However fine dust generated during air bag deployment may cause skin irritation. Be sure to wash off any residue with a lukewarm water and soap after air bag is deployed due to an accident.



Never place your arm on the air bag module, as the deploying air bag can result in serious arm fractures and other injuries.



No objects (like mobile charger, mobile phones etc.) should be placed over or near the air bag modules. Placing objects over or near the air bag may cause the objects to be propelled by the air bag onto your face or chest, causing serious injury.



1.8.14



Instrument Cluster



Air bag components may be hot for several minutes after deployment. Do not touch the air bag components immediately after deployed.

Seat Belt Pre Tensioner and Load Limiter: Your GOA is equipped with a seat belt pre tensioner and load limiter for driver and co-driver seats which works along with SRS and is also controlled by air bag ECU. The pre tensioner and load limiter is located in each front seat belt retractor. Pre tensioners are triggered / ignited only when there is frontal crash severe enough to deploy the front air bags. The pre tensioners tighten the front seat belts on the occupant's body and reduce the seat belt slack and thus helps to reduce the injury on the occupant in case of a frontal accident. After the pre tensioner of the seat belts are activated the load limiters allows the seat belt to release webbing(if necessary) to reduce the forces against the chest, so that the occupant is cushioned by a fully inflated airbag.

Children and Air Bags: Children must always be properly restrained. Children are safer when properly restrained in rear seating positions than in front seating positions.



Children must never be allowed in the front passenger's seat. Mahindra recommends children should be seated in the rear seats with proper child restraint seat belts.

1.8.15



Holding a child in your arms while sitting in a front seat is NOT a suitable substitute for a child restraint system. In an accident, a child held in a person's arms can be crushed between the deploying airbag and the person holding the child.



Never keep your child in front seats with Child restraint systems facing rear deploying Airbag may cause severe injury to the child.

Air Bag Warning Light:  The air bag ECU continuously monitors the readiness of the air bag and any malfunction in the SRS system is indicated by the air bag warning lamp on the instrument cluster. The warning lamp will illuminate for 06 seconds and go OFF when the ignition is switched ON and this is normal as the system is performing a self check.

The Warning light system monitors the following components

- Air Bag ECU
- Driver Air Bag (DAB)
- Passenger Air Bag (PAB)
- Seat Belt Pre Tensioner and Load Limiters
- Air Bag related wiring Harness.

If any of the following conditions occurs, it indicates malfunction of air bags or seat belt retractor pre tensioners. Contact your Mahindra dealer immediately for assistance.



1. The warning light  does not come ON when the ignition key is switched ON or warning light remains ON for more than 06 seconds
2. The warning light  comes ON while driving.

SRS Care: The SRS components do not require any regular maintenance. However special procedure is to be followed to service / repair air bag and air bag related components.

The air bag and seat belt retractor pre tensioners are designed to inflate only once. If the air bags inflate, have the air bags and air bag related components replaced by an authorised Mahindra Dealer only.



Never attempt to modify SRS components or wiring or steering wheel or the body structure. Modification can adversely affect the SRS performance and lead to personal injury.



Only Mahindra authorized person can repair your SRS system. Any unauthorized repair or modification on electrical systems of the vehicle may result in unwanted deployment of air bags and render your vehicle unsafe. Any rework / fitment of accessories must be carried by Mahindra trained person only. Mahindra shall not be responsible for any injury / loss or Death resulting due to tampering of the system by unauthorized person.



For cleaning the air bag pad covers, use only soft, dry cloth or the one which has been moisturized with plain water. Solvents and cleaners would adversely affect the air bag covers and may cause malfunctioning of the system.



Always approach authorized Mahindra dealer if the SRS components must be discarded or the vehicle is to be scrapped. Failure to do so may lead to personal injury.



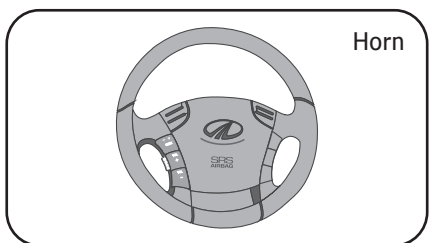
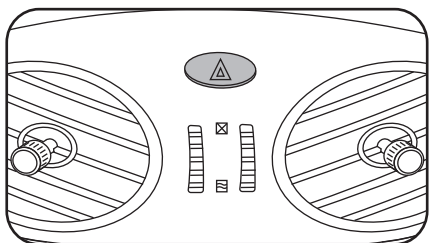
If the vehicle has met with an accident, even though the air bags are not deployed, get your SRS system checked by an authorized Mahindra dealer to ensure SRS air bags are functioning normally.

27. Front Fog Lamp Indication

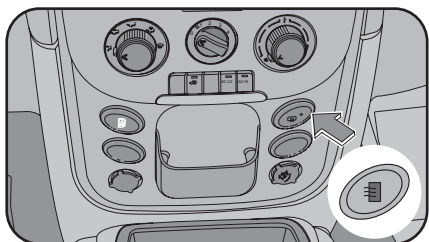
Tell tale illumination indicates front fog lamps are ON. The front fog lamps can be switched ON only when the parking lamp is ON.



Instrument Panel



Horn



Rear Demister Switch

1.9.1



Hazard Warning Switch : Press the switch (located on the instrument panel) to activate all turn-indicators simultaneously. Use this only in case of an emergency to warn the traffic about any hazardous condition of your vehicle. It functions even without the ignition switch being turned ON.

NOTE The direction indicators do not work when the hazard warning is activated. Check local regulations about use of hazard warning lights while the vehicle is being towed or while driving.

Horn: Horn can be operated independent of the ignition switch. To sound the horn, depress the pad in the center of the steering wheel.

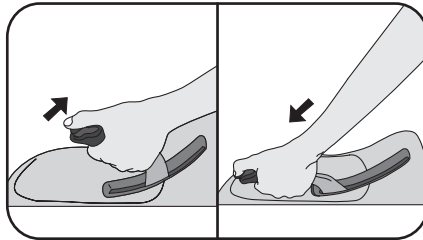
Rear Demist Switch : Press the switch (located on the IP centre bezel) to (turns the heater ON) clear the frost from the rear door glass. Switch OFF as soon as the frost is cleared. If the switch is ON continuously, a timer switches the demister OFF automatically after 12 minutes of operation.

NOTE The demister is not designed for drying rain water or for melting snow. If there is an accumulation, remove the excess ice/water before switch on the demister

NOTE When cleaning the inside of the rear glass, be careful not to scratch the heater wires or connectors.



Instrument Panel



Parking Brake : To activate the parking brake, pull the lever upwards fully. Warning light (Red colour) on the instrument cluster will light up when the hand brake is applied.

To release it, pull the lever upwards slightly, depress the locking button and push the lever downwards. Red warning light on the instrument cluster will light up if you are driving with an incorrectly released hand brake.



Driving with the parking brake, even if it is set partially, can overheat or damage the brakes and will result in poor braking.

CAUTION

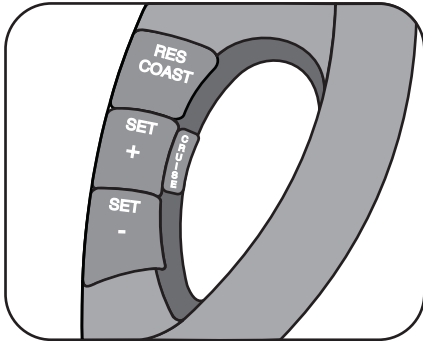
Before driving, be sure the parking brake is fully released and the brake indicator light is OFF.

Depending on the slope and/or vehicle load, it may be necessary to apply the hand brake by two additional notches and select a gear (preferably 1st or reverse) while parking.



1.9.2

Cruise Controls

**Cruise Control**

The cruise control system enables the driver to maintain the constant road speed, without using the accelerator pedal, generally when driving on free/open highways. The cruise control system will operate above the speed of 30 km/h and engine RPM more than 1200. The cruise control system is designed to operate above the speed of 30 km/h.

Cruise control will function only under the following conditions

- The vehicle is cruising above 30 kmph.
- Engine RPM above 1200 RPM.
- Vehicle is in any gear except 1st and reverse.

1.10.1



- Clutch pedal released.
- Brake pedal released.
- Cruise is activated first time in an ignition cycle by SET+ & SET-
- Subsequent cruise engagements can be done by RES, SET+ & SET- buttons in the same ignition cycle.
- Once the Cruise is activated, user has to remove the leg from accelerator pedal
- There should be at least one braking operation before activation of cruise control function. This is very important condition & because of which system understands whether the braking system in Vehicle is working ok or not. If not, system will not activate the cruise control function.

To Operate/Set the Cruise Control Speed

Cruise control system works with 4 different switches provided on steering. Those switches are...

- | | |
|--------------|-----------|
| 1) SET+ | 2) SET- |
| 3) RES/COAST | 4) Cruise |



The function of each switch is as below:

1) To Increase the Set Cruising Speed

Press and hold the SET (+) switch. The vehicle speed will increase in the steps of 2 kmph on every pressing. Release the SET (+) switch as soon as the desired cruise speed has been reached.

2) To Reduce the Set Cruising Speed

Press and hold the SET (-) switch. The vehicle speed will reduce in the step of 2 kmph on every pressing. Release the SET (-) switch as soon as the desired cruise speed has been reached (Do remember that the cruise control system will not operate at vehicle speeds below 30 km/h).

3) Resume to the Last Preset Speed

By pressing the RES / COAST switch, the last set cruise speed can be resumed, provided the ignition switch is ON and the vehicle speed is above 30 km/h.

Example :

- Assume, you have activated cruise mode and set the vehicle speed at 50 kmph
- Due to an obstacle or a sharp turn, you have deactivated the cruise mode either by pressing the brake pedal or by switching OFF the CRUISE control.

- Vehicle comes out of the cruise mode.
- When the road condition is suitable to switch over back to cruise control mode, press RESUME button once. The system activates the cruise control mode to the previous cruising speed of 50 kmph.
- To resume the previous cruise set speed, the vehicle speed should be above 20 kmph

4) Disengaging the Cruise Control

The cruise control will be deactivated if the brake or clutch pedal is pressed, (or) when the CRUISE switch is pulled-up.

The preset cruise speed in system memory will automatically get cancelled when the ignition switch is turned OFF.

Cruise control is deactivated under the following conditions

- CRUISE switch is pulled up
- Brake or clutch pedal depressed
- If the vehicle speed exceeds the cruise set speed by 30 kmph by accelerator pedal intervention.
- If vehicle speed is increased by 10 kmph for more than 30 sec. by pressing the accelerator pedal
- When Set+ /Set- switch is pressed for more than 12 sec.



(In this case vehicle will not go into cruise mode in that ignition cycle. In order to restore the cruise function switch OFF the ignition, wait for 30 sec. and switch ON the ignition)

- Cruise influencing error indicated by Check Engine Lamp, OBD lamp, etc.

Override function:

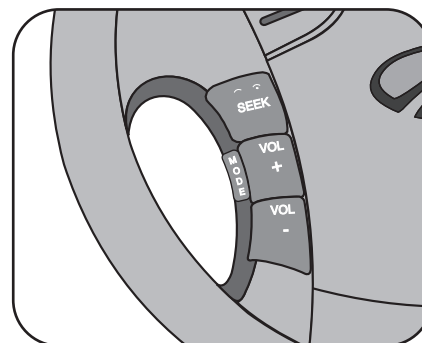
This function enables user to ramp up the cruising speed to overtake front vehicle. The cruising speed can be increased by using SET(+) button or by accelerator pedal. User has to complete this action within 20 seconds, to maintain the cruise mode. If user exceed the 20 seconds limit, cruise mode will be deactivated.

Recommendation:

Though the feature gives driver comfort while driving, user has to take few precautions for safe driving.

- Do not activate cruise application in traffic area.
- De-activate cruise control on slippery road surfaces (rainy/icy/snow-covered), up-hill / downhill driving.
- As the system only maintains the speed of vehicle in cruise mode, steering control should be carefully handled.

1.10.3



AUDIO CONTROL THROUGH STEERING WHEEL SWITCHES

Introduction:

AUDIO CONTROL through steering wheel switches helps the driver to operate the audio system without taking hand and concentration off the steering wheel.

The system has four switches which are mounted on steering wheel.

1. SEEK

Press the SEEK switch once to increase radio reception frequency by 0.05MHz.



Press the SEEK switch continuously for more than 3 seconds for auto scan of radio station.

In CD/SD CARD/USB modes, next track can be selected by pressing the switch once.

2. VOLUME + (VOLUME CONTROL)

To increase the volume by one point press the VOL + switch once.

3. VOLUME – (VOLUME CONTROL)

To reduce the volume by one point press the VOL – switch once.

4. MODE

To switch between different modes in AUDIO SYSTEM, there are five audio modes available in audio system.

When MODE switch is pulled once, next mode is chosen in the following sequence provided, the required media is connected.

- Tuner
- CD/MP3
- SD Card
- USB
- Auxiliary

In case of absence of any mode USB/CD/SD CARD, system will toggle between Tuner & Auxiliary modes.

Tuner and Auxiliary modes are available by default.

In case if CD is loaded in Audio System then sequence will be;

Tuner→CD→AUX

If all media are already inserted into audio unit then sequence will be:

Tuner→CD→SD CARD→USB→AUX



- 1) Press the POWER ON / OFF button available on face plate to TURN ON / OFF the audio system because TURNING ON / OFF of audio system is not available on steering wheel.
- 2) In case of non-functioning of AUDIO CONTROL through steering wheel switches, AUDIO can still be operated either through face plate or remote.



Follow Me Home Headlight



Follow Me Home Headlight (If Applicable)

This feature helps driver and passengers to easily get out of the vehicle during night time. Turn ignition OFF and open driver doors; headlamp will light up in low beam for 30 seconds unless cancelled by UNLOCK signal.

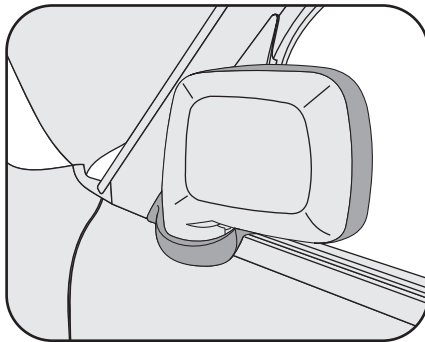
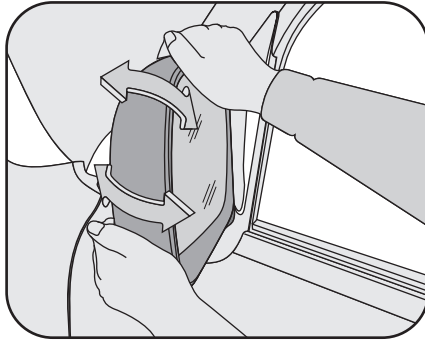
To extend FMH feature further for 30 seconds, press LOCK button. This extension can be availed within 2 minutes from the time of ignition switch OFF and driver door open.

With FMH mode ON; first LOCK signal received from RKE will lock the doors and subsequent LOCK signal is used to toggle the headlamp position from ON to OFF.

With FMH mode ON, if UNLOCK signal is received from RKE, the feature gets de-activated and can not extended further. Also, doors get unlocked and vehicle disarmed.



Rear View Mirrors

**External Rear View Mirror****Manually Adjustable**

For adjusting the mirror, push it or slightly twist it in the desired direction until you can clearly see the road behind.

Remote Operated

Adjustments can be made using the switch provided.

CAUTION

Objects in this mirror look smaller and appear further away than they actually are. Do not overestimate the distance of the objects seen in the mirror.

CAUTION

Do not adjust the mirror while the vehicle is moving. If doing so may cause the driver to mishandle the vehicle and may result in loss of vehicle control.

Mirror Folding

Both manual & remote operated outside mirror units can be folded flat, where it is needed, against the vehicle when pushed towards it.

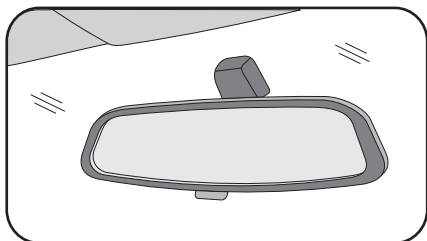
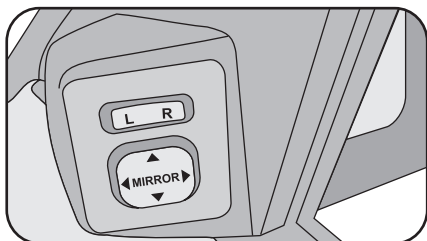
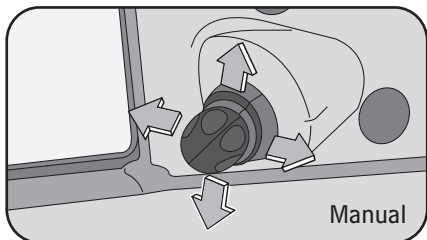
CAUTION

Take care of driver side ORVM as temperature sensor is located below the ORVM. Any damage to the ORVM will make MIL lamp glow in instrument cluster.



1.12.1

Rear View Mirrors



1.12.2



Electric Exterior Mirror (If Applicable)

On the front driver side door, electrical exterior mirror adjustment switch is located. Switch houses selection button and 4 way navigation button.

Pressing **L** selects left side exterior mirror. Pressing the navigation knob in the required direction moves the mirror to bring the rear traffic view as desired.

Pressing **R** selects right side exterior mirror. Pressing the navigation knob in the required direction moves the mirror to bring the rear traffic view as desired.

CAUTION

Do not drive the vehicle with the outside rear view mirrors folded backward. Both the driver & the co-driver side rear view mirrors must be extended and properly adjusted before driving. Always adjust the outside mirrors to the driver's convenient position before driving the vehicle.

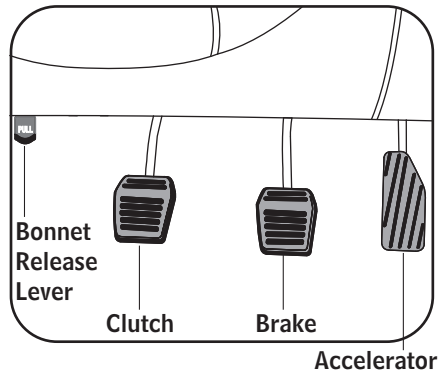
Internal Rear-view Mirror

Adjust the rear view mirror, in the day position, by slightly turning or twisting it until you see the road behind clearly through the rear glass. To decrease glare/dazzle (of headlights of following vehicles) when driving in the night, pull the view mirror lever towards yourself. Push the lever away from yourself to bring back for day driving position

CAUTION

Do not adjust the mirror while the vehicle is moving. If doing so may cause the driver to mishandle the vehicle and may result in loss of vehicle control.

Foot Pedals



Accelerator: Pushing the accelerator pedal down increases the acceleration and releasing the pressure on it decreases the acceleration.

NOTE Sudden acceleration or deceleration can cause loss of control on slippery surfaces. Take extra care while driving on slippery surfaces.

Brake: Put your foot on the brake pedal only when you intend to stop or decrease the speed. Resting your foot on the pedal keeps the brakes applied lightly, causing them to build up heat and/or poor fuel efficiency. Heat thus built up can reduce the effectiveness of the brakes. Constant application of brakes while going downhill builds up heat and reduces their effectiveness. Instead, downshift to a lower gear and take your foot off the accelerator pedal.



WARNING

Driving with wet brakes is dangerous. Increased stopping distance or vehicle pulling to one side when braking could cause a serious accident. Dry the brakes by driving at very slow speed and applying the brakes lightly until the brake performance become normal.

CAUTION

Even if the power assist is completely lost, the brakes will still work. The brake can be applied to stop the vehicle, by pressing the brake pedal much harder than normal. And the vehicle stopping / braking distance will be longer than usual.



**CAUTION**

Continuing to drive the vehicle with engine stalled or turned off is dangerous, since braking will require more effort than normal to stop the vehicle. This will cause the longer stopping distance or even an accident.

Anti-Lock Braking System (ABS) (If applicable)

The anti-lock braking system (ABS) is designed to prevent wheel lock-up during an emergency/sudden braking or on hazardous/slippery road surfaces. The safety enhancement is that the brake control system prevents the wheels from locking, even if the brakes are applied too sharply, and allows the vehicle to be steered and thus its direction to be controlled.

The anti-lock brake system (ABS) will operate at all speeds. The brakes will work normally. Only at the time of wheel locking the ABS will take over and prevent wheel lock.

During the ABS operation, a slight pulsation may be felt in the brake pedal when the brakes are applied and hear a noise from engine compartment. These conditions are normal and indicate that ABS is functioning properly. In this situation, to let the ABS work for you, just hold down the brake pedal down more firmly. Do not pump the brake pedal

in panic/emergency stopping. This will result in the reduced level of performance.

When the engine is started or when the vehicle begins to move, the ABS is in the self-check mode. During self-check, you may hear a noise & motor operation sound from the engine compartment. This is normal and is not a malfunction.

**WARNING**

Use of non recommended tyres / wheel-rims / alloy-wheel-rims other than the recommended size/specification will greatly reduce the ABS performance. All the brake related works to be attended by a Mahindra Authorised dealer only.

CAUTION

ABS is not designed to shorten the stopping distances. ABS cannot compensate for unsafe and reckless driving.

Although this system allows you to optimize stopping distances, the ABS system does not allow you to increase the vehicle performance which is physically linked to the local conditions of tyre / road surfaces / tyre-ground adhesion. It is still important to drive with due care and maintain a moderate speed and safe distance from the vehicle in front of you, because there are limits to the vehicle stability and handling even with the anti-lock braking system is on.



Compared with the vehicles not equipped with ABS, your vehicle may require a longer stopping distance in the following cases

- Driving on rough road / gravel / snow covered surfaces
- Driving on the roads where the surface is different between the wheels or wheels are in the different levels.

CAUTION

- The safety features of an ABS equipped vehicle should not be tested by high speed driving or cornering. This could endanger the safety of yourself or others.
- Even if the power assist is completely lost, the brakes will still work. But you will have to press the brake pedal hard, much harder than normal. And your braking distance will be longer.
- In case the engine stalls, do not pump the brake pedal. Each press on the pedal uses up your reserve vacuum.

NOTE

Due to ABS operation the wheels will not lock. Hence even during the panic braking, there will not be a skid marks on the road. Please do not confuse the lack of skid marks as poor braking.

"ABS" Warning Light

The ABS warning light will come on when the ignition key is turned to the IGN position. If the anti-lock braking system works properly, the light goes off after a few seconds. Thereafter, if the system malfunctions, the light comes on again.

When the ABS warning light is on / blinking continuously (and the brake system warning light is off), the anti-lock brake system does not operate, but the brake system still continues to operate conventionally. If ABS warning light on / blinking continuously, immediately contact the nearest Mahindra Authorised dealer.

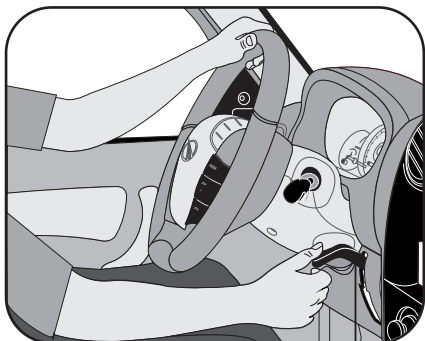
Clutch : The clutch pedal should be pressed down fully while shifting, and then released slowly. Do not use the clutch pedal to hold the vehicle when you stop the vehicle or while driving on an uphill path. Use the parking brake instead. (Not applicable in case of AT Vehicle)

CAUTION

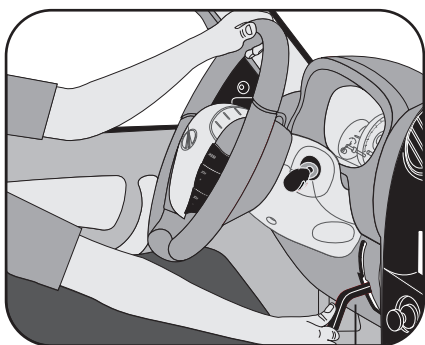
Resting the foot on the clutch pedal while driving reduces the life of the clutch liner and the release bearing.



Steering



Tilt Lever Lock Position



Tilt Lever Unlock Position

1.14.1

**POWER ASSISTED STEERING**

Power assisted steering uses energy from the engine. If the engine is off or if the power assisted steering becomes inoperative, still the vehicle can be steered, but it will require more effort.



Never hold the steering wheel to the extreme right or left for more than five seconds with the engine running. This can cause damage to the power steering system & its components.

TILT STEERING WHEEL

To change the steering wheel angle (up/down), hold the steering wheel, push down the lock release lever, tilt the steering wheel to the desired angle and return the lock release lever to the original lock position.

CAUTION

Do not adjust the steering wheel angle while the vehicle is moving. It may cause the mishandling of the vehicle and may result in an accident.

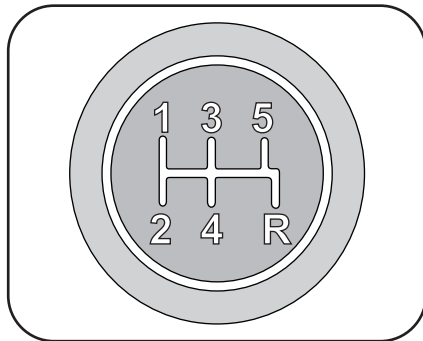
After adjusting the steering wheel, try moving it up & down to ensure it is locked properly.



Manual Transmission / Gear Shift



Gear	Speed (km/hr)
1	35
2	65
3	95
4	130
5	140



Recommended Maximum Speed During Driving

If speeds shown in the table are exceeded when driving in the respective gears, the engine speed indicator needle will turn towards the Tachometer's (if installed) upper limit. If this happens, you will feel the engine cut in and out. The engine will run normally again if the RPM is reduced below the Tachometer's upper limit.

The speed at which you drive, however should conform to all federal, state, territory and local laws, and to the condition which will permit safe operation.

CAUTION Do not exceed the speed limit mentioned against each gear.

NOTE Do not downshift if you are going faster than the maximum allowable speed for the next lower gear.

Gearshift : The gearshift pattern is shown on the gear lever knob. The clutch pedal should be pressed down fully while shifting, and then released slowly. Shift into the reverse gear only when the vehicle is stationary.

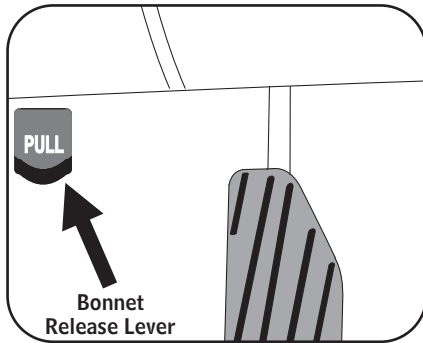
NOTE Revving the engine regularly to the maximum in each gear causes excessive engine wear and high fuel consumption.

NOTE Make sure the vehicle is completely stopped before shifting into reverse.

NOTE Keep your foot off the clutch pedal except when shifting gears. Also, do not use clutch pedal to hold the vehicle on an up-gradient. It can cause excessive clutch plate wear & damage.

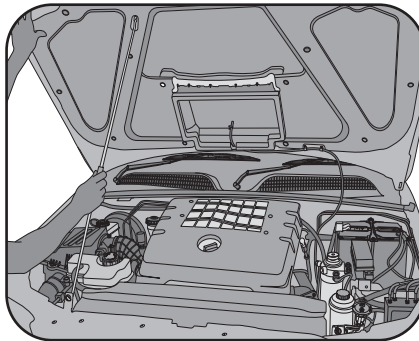
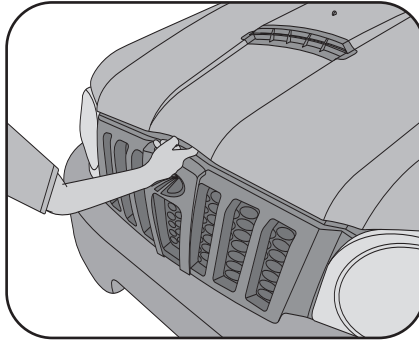
CAUTION Be careful when downshifting on a slippery surface. Abrupt shifting could cause the vehicle to spin or skid.



**Bonnet Release Lever****Bonnet Release Lever:**

To unlock the bonnet, pull the bonnet release lever (located below and to the left of the steering wheel). Then release the lever under the bonnet by pushing it aside with your finger. To do this you need to slide your finger beneath the partially opened bonnet. Lift the bonnet until it can be supported by the stay rod, whose hook must be locked in the groove provided in the inner side of the bonnet. While closing the bonnet, secure the stay rod in the clip.



Bonnet Opening

Pictorial Representation

Bonnet Opening :**CAUTION**

- Make sure that the bonnet is fully closed and locked before driving. Otherwise, the bonnet may open unexpectedly while driving and an accident may occur.
- After inserting the support rod into the slot, make sure the rod supports the bonnet securely from falling down on your head or your body.

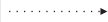


1.16.2

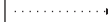
WHILE DRIVING



Contents



Starting and Stoping Engine



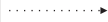
Fuel



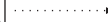
Driving Tips



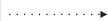
Windows Winding



Shifting Driving Modes



Heating, Ventilation, Air Conditioning



Driving in the Break-in Period



Other Equipment

Starting and Stopping Engine

Initial Checks

- Ensure that the windshield, windows, mirrors and external lights are clean.
- Ensure that the windshield washer reservoir is full.
- Visually inspect tyres for their appearance & condition. Ensure that tyres have appropriate pressure (including spare tyre).
- Ensure that the bonnet is closed properly.
- Check underneath for leaking fuel, oil water or fluid. (water dripping from air-conditioning after use is normal).
- Check for availability of the Jack & wheel nut wrench.
- Adjust seat position, seat-back angle and head restraint height to comfort.
- Adjust internal and external rear-view mirrors.
- Lock all doors.
- Fasten seat belts.
- Turn the key to IGN position.
- Check the lights in the instrument cluster.
- Check the gauges and indicator lights in the instrument cluster.
- After starting the engine / while driving the vehicle, check for any abnormal noise.

CAUTION

Release the key immediately after the engine starts; otherwise this may cause serious damage to the starter motor.

NOTE

It is not recommended to press the accelerator pedal while starting the engine.

NOTE

Do not crank for more than 10 seconds at a time. If the engine stalls or failed to start, wait for 10 seconds before trying again.

NOTE

Do not race a cold engine.

EXHAUST GASES

- Vehicle exhaust contains Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides, Hydrocarbons and Particulate Matter. These are potential environmental and health hazards.
- Avoid inhaling the exhaust gases. Carbon Monoxide is a colorless and odorless gas and can cause unconsciousness or even death.
- If the exhaust system is damaged for any reason or you notice a change in the exhaust noise, get the vehicle checked by an authorized Mahindra dealer at the earliest.

Starting and Stopping Engine

- Exhaust gas leaks may result in its entry into the passenger compartment. If you smell exhaust gases inside your vehicle, open the windows to ensure plenty of fresh air in the vehicle. Have your vehicle checked by an authorized Mahindra dealer.
- Do not start the vehicle in a closed garage or in an enclosed area where ventilation is poor for the exhaust gases.
- The exhaust gas flowing in the system is always very hot. Keep combustible materials away from the exhaust system components.
- Since the engine compartment and exhaust system components are hot and can ignite a fire, do not park or leave the vehicle with the engine idling over dry grass, leaves, paper, rags or any combustible material.
- Do not remain in a parked vehicle for a long time with the engine running. If it is unavoidable, do so only in an unconfined area with either open windows or with the HVAC system running in fresh air mode.

Starting the Engine

- Apply the parking brake fully
- Insert the key into the ignition switch and turn it into the IGN position.
- If the vehicle is equipped with glow plugs, wait for preheat glow plug light in the instrument cluster to go OFF during cold start. The engine may be started without waiting for preheat if the engine is warm
- Check the gear lever is in Neutral Position
- Crank the engine by turning the key to START position till the engine starts. If the engine does not start in the first attempt, wait for a few seconds and try again.
- Let the engine run for at least 10 seconds before releasing the parking brake
- Start driving

For Diesel engines fitted with glow plugs



If the engine does not start in 10 seconds even after pre heating is over, turn the ignition key to off position and then ON in order to preheat again.



Whether cold or warm, the engine should be started with out use of accelerator pedal.



Do not crank for more than 10 seconds at a time. If the engine stalls or failed to start, wait for 10 seconds before trying again.





Starting and Stopping Engine



Turbocharger system

Your Mahindra's diesel engine is equipped with a turbo charger (TC) system. The TC system uses engine oil for lubrication & cooling of its rotating components. The TC turbine revolves at extremely high speeds and the TC can reach extremely high temperatures. It is necessary that clean & sufficient supply of oil flows through the TC system. A sudden interruption of oil supply may cause damage to the TC system.

To ensure prolonged life & performance of the TC, change your vehicle engine oil according to the recommended interval with recommended engine oil and follow the starting & stopping procedure

CAUTION

During Starting the engine

"After starting the engine, run the engine in low idle speed for at least 20 seconds. Do not accelerate the engine immediately after starting to avoid damage to turbo charger"

During Stopping the engine

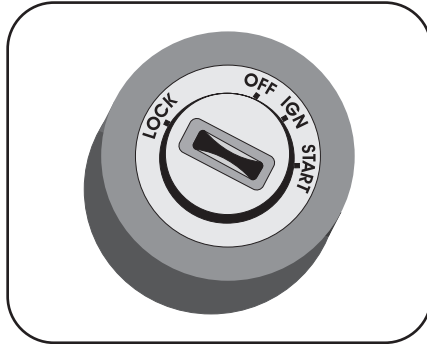
"Before switching off the engine, run the engine on idle for at least 20 seconds and then switch off. This is to ensure that turbo charger speed is minimum when switching off the engine.

CAUTION

Release the key immediately after the engine starts, otherwise this may cause serious damage to the starter motor.



Stopping Engine / Limp Home Mode



Stopping the Engine

Bring the vehicle to a stop and allow the engine to idle. Turn the key to OFF position.

CAUTION

Abruptly stopping the engine after a long high speed journey may damage the engine. Idle the engine for a few seconds before switching it OFF.

Limp Home Mode

Limp home mode is an emergency situation declared by the EMS due to failure of one/more critical sensors / actuators. In this mode, the EMS will revert back to basic minimum

requirement (fuel quantity / injection timings) to aid the driver to bring the vehicle back to the nearest workshop / a safe place. Needless to say the drivability & fuel consumption will be greatly affected.

Driving the vehicle to the Mahindra Authorised dealer in the Limp home Mode :

- Follow the engine starting instructions as mentioned in the previous page
- During the normal condition, the engine check lamp glows and dies down. This will take approximately 5 seconds
- If the lamp on the instrument panel blinks, it means your vehicle has shifted to the limp home mode
- In the limp home mode, the engine speed fluctuates between 1000-1200 rpm for CRDe-diesel engine and you will not be able to use the accelerator control. But this mode enables you to drive your vehicle to the nearest Mahindra Authorised Dealer
- The limp home mode can be erased, only after rectifying the problem

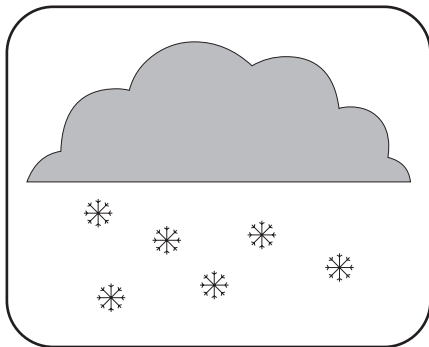
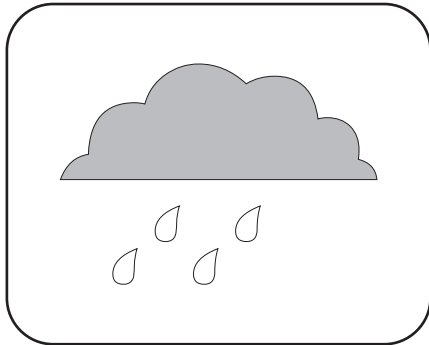
NOTE

If the engine does not start or stalls frequently, get the engine checked immediately by a Mahindra Authorised Dealer.





Driving Tips



Driving in Wet Weather/Snowy Conditions

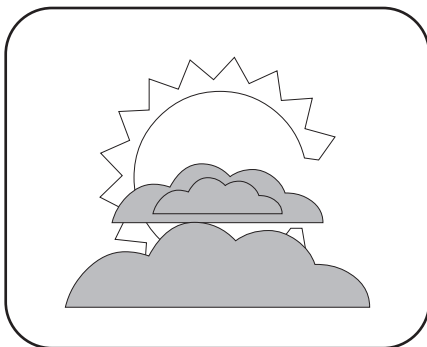
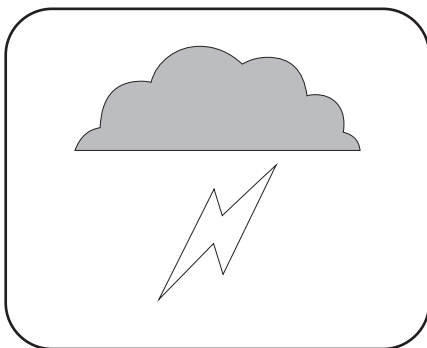
Wet weather or snow can be dangerous for driving. The following tips tell you how to avoid accidents in such conditions:

- Drive slowly: Low driving speed increases the surface of tyre tread in contact with the road and provides better traction
- Maintain safe distances from other vehicles: Wet weather results in longer stopping distances (about four times that of normal stopping distance). So, it makes sense to keep a good distance from other vehicles, people and objects in your path.
- Maintain tyres: Tyres may not provide adequate traction once the tread wears below two thirds of the tread depth. Check tyres regularly and replace them at proper times. Maintain the recommended tyre pressure in the tyres at all times.
- While braking, accelerating or turning, avoid jerky and abrupt movements
- Apply smooth, even pressure on all controls. Abrupt steering wheel movements or sudden, hard application of brakes can cause loss of control.





Driving Tips



- Exercise extra caution while driving in rain after a long dry spell. After months of dry weather, the first rain brings grime to the surface of the roads, making it slippery.
- While driving on wet surfaces, downshift carefully. If the traction is low, it can lock up the drive wheels for a moment and cause a skid.
- If the battery is not fully charged during extremely cold weather conditions, the battery fluid may freeze and damage the battery. To maintain the maximum efficiency, the battery should be checked regularly.
- It is recommended that the following items to be carried in the vehicle during winter driving.
 - A shovel to dig the vehicle out of snowdrifts.
 - A sturdy, flat board to be placed under the jack to give firm support.
 - A scraper and stiff bristled brush to remove ice & snow from the windows.



2.3.2



Driving Tips



Refer to the lubrication chart, for use of suitable lubricants, engine coolant, windshield washer fluid & brake/clutch fluids, for the cold winter (extreme cold atmospheric) conditions.

To avoid door lock from freezing, squirt lock de-icer or glycerin into the locks. A Heated key can be used to open the frozen lock.

CAUTION

Be careful when accelerating, up-shifting, downshifting or braking on a slippery surface. Sudden acceleration or engine braking could cause the vehicle wheels to spin or skid or loss of control.

Driving in Low Visibility

Being able to see clearly in all directions and being visible to other drivers is important in all weather conditions. This is more difficult in bad weather conditions. To be seen more clearly by other road users during daylight hours, turn the headlights ON. Inspect the windshield wipers and washers regularly. Keep the windshield washer reservoir full. If the windshield wiper blades start to streak the windshield or leave parts un-wiped, replace them. Use the defroster to avoid fogging of windshield on the inside.

2.3.3



SAFE DRIVING TIPS

- Always slow down in gusty cross winds. This will allow/improve for better vehicle control.
- Drive slowly when passing over speed breakers / bumps or traveling on a bumpy road. Not doing so could cause severe damage to the tyres/wheels/suspension system & may also result in personal injury.
- When parking on a slope, turn the front wheels until they touch the side curb to avoid vehicle rolling. Apply the parking brake and keep the transmission in first/reverse gear. If possible, chock the wheels.
- Do not drive across steep slopes. Instead drive either straight-up or straight-down the slopes.
- Driving through deep water or washing the vehicle may get the brakes wet. Wet brakes could make the stopping distance longer or even no braking or brake pulling. To dry the wet brakes, drive the vehicle cautiously, when there is no-traffic near you, while lightly applying the brake pedal together with parking brake applied. If brakes are still not working safely, park the vehicle beside the road and contact the nearest Mahindra Authorised dealer.

CAUTION

To drive down a long or steep hill, reduce your vehicle speed and downshift the gears. Excessive use of brakes may cause overheating, resulting in poor braking or brakes not working.



Driving Tips



CAUTION

Always observe the following precautions to minimize the risk of accidents leading to serious personal injury or damage to your vehicle



When both accelerator and brake pedals are depressed together, the brake function will override the accelerator input for safety reasons.

General Driving Precautions

Before you drive your vehicle, please read this manual carefully.

- When you start driving, verify brakes, steering system. In the event you hear any strange noise or feel unusual vibration, smoke, or if any warning lamps illuminate or buzzers sound, park/stop the vehicle in a safe location as soon as possible. Identify the cause and take any necessary remedial action. Contact your authorized Mahindra dealer if necessary.
- Always be attentive while driving and follow safe driving practices.
- Always maintain the recommended inflation pressure in tires.
- Always drive at speed safe enough for a given driving conditions. You must follow the speed limits.

- While backing up, keep a constant lookout for people, particularly children, or other obstructions or hazardous material that might be present behind the vehicle, especially when cargo is in the truck bed.
- Utility vehicles have a significantly higher rollover rate than other types of vehicles. Your vehicle is not a passenger car. Your vehicle has higher ground clearance and narrower tread with respect to the height of its center of gravity to make it capable of performing in variety of off-road applications. Higher ground clearance allows it to travel over rough terrain without getting hung up or damaging underbody components. Specific design characteristics give it a higher center of gravity in comparison with ordinary passenger cars. This vehicle design feature causes this type of vehicle, including yours to be more likely to rollover. Failure to operate this vehicle correctly may result in loss of control or vehicle rollover causing death or serious injury.
- Utility vehicles and trucks handle differently than passenger cars in the various driving conditions that are encountered on streets, highways and off-road. Your vehicle has not been designed for cornering at speeds as high as passenger cars. Hence avoid sharp turns or abrupt maneuvers at excessive speeds. Failure to operate this vehicle correctly may result in loss of control or vehicle



2.3.4



Driving Tips



rollover causing death or serious injury.

- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Therefore, occupants should fasten their seat belts and children/infants must use appropriate restraints whenever the vehicle is moving to minimize the risk of injury or ejection.
- Avoid loading any items on the roof that will raise the vehicle's center of gravity and make your vehicle more likely to rollover.
- Loaded vehicles, with a higher center of gravity, may handle differently than unloaded vehicles. Extra precautions, such as slower speeds and increased stopping distance, should be taken when driving a heavily loaded vehicle.
- Always slow down in gusty crosswinds. Because of its profile and higher center of gravity, your vehicle is more sensitive to side winds than an ordinary passenger car. Slowing down will allow you to have much better control.
- When driving off-road or in rugged terrain, do not drive at excessive speeds, jump, make sharp turns, strike objects, etc. This may cause loss of control or vehicle rollover causing death or serious injury. You are also risking expensive damage to your vehicle's suspension and

chassis.

- Maintain steering wheel control at all times, especially in rough terrain. Sudden changes in terrain can result in abrupt steering wheel motion; make sure you grip the steering wheel from the outside. Do not grip the spokes.
- Do not drive horizontally across steep slopes. Driving straight up or straight down is preferred. Your vehicle can tip over sideways much more easily than forward or backward.
- If the vehicle goes from one type of surface to another (e.g. from concrete to gravel/sand/mud/snow) there will be a change in the way the vehicle responds, especially the way it responds to steering, braking, accelerating inputs.
- Be extremely careful when driving on pavement made slippery by loose sand, water, gravel, snow or ice.
- If your vehicle goes off the edge of the pavement, slow down, but avoid severe brake application, ease the vehicle back onto the pavement only after reducing your speed. Do not turn the steering wheel too sharply while returning to the road surface.
- It may be safer to stay on the apron or shoulder of the road and slow down gradually before returning to the pavement. You may lose control if you do not slow down or if you turn the steering wheel too sharply or abruptly.





Driving Tips



PRECAUTIONS FOR OFF-ROAD DRIVING

This vehicle is not designed for cornering at the same speed as a regular passenger car. It is designed to perform satisfactorily under off-road conditions. Hence, avoid sharp cornering or abrupt manoeuvre at excessive speeds as it may cause vehicle rollover or loss of control resulting in serious injury or even death. When driving off-road or rough on roads do not drive at excessive speeds. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or vehicle rollover.

CAUTION

- Avoid loading any items / objects on the roof of the vehicle, as it could increase the height of the vehicle's centre of gravity.
- Drive carefully when off the road.
- Do not grip the steering wheel spokes when driving off-road. A bad bump could jerk the wheel and injure your hands. Keep both hands especially your thumbs on the outside of the steering wheel rim.

CAUTION

After driving through tall grass, mud, rock, rivers, etc., check that there is no grass, bush, paper, rags, stone, sand, etc., trapped or adhering to the underbody. Clear off any such matter from the underbody. Otherwise, a breakdown or fire could occur.

- If driving/crossing through shallow streams, first check the level of the water & bottom of the river bed for better gripping.
- Take all the necessary safety measures to make sure that no damage to the engine or other components due to water entry. Water entry can cause air intake system failure resulting in engine seizure, washing away the bearing greases, causing rusting and premature failure. The transmission, transfer case and differential also may suffer damage due to water entry.



2.3.6



Driving Tips

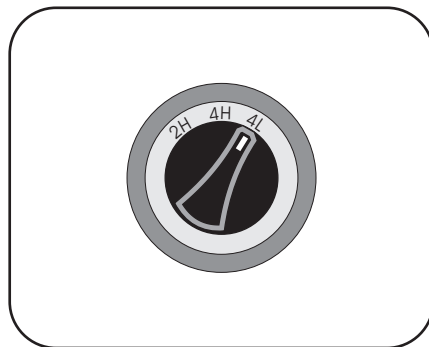
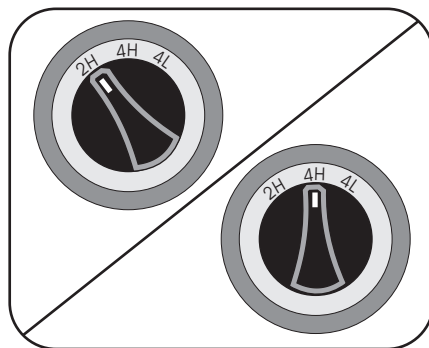


- Accumulated sand/mud in the brake drum/disc may greatly affect the braking efficiency & can damage the braking system components.
- It is necessary to carry-out a maintenance inspection after each day of off-road driving, that is when going through rough terrain, water, sand and/or mud.





Shifting Driving Modes



Transfer Case Shifting Guidelines For 4-wheel Drive Models

2H - (2WD) in this mode only rear wheels are driven. Use when driving under the same conditions as standard 2WD vehicles.

4H - (4WD, high mode) Four wheels are driven. Use when driving on roads where it is difficult to drive in 2H position (i.e., driving at normal speeds on snow covered, icy, wet, muddy or sandy road surfaces). Avoid excessive speeds, as it will cause loss of traction.

4L - (4WD, low mode) Four wheels are driven. Use when climbing or descending steep hills, or during hard driving in sand, mud or deep snow. The '4L' position provides maximum traction. Avoid excessive speed when driving in '4L' mode.



2.4.1



Shifting Driving Modes



You need not stop the vehicle or depress the clutch pedal, when shifting between 2H to 4H and 4H to 2H.

CAUTION

- Driving the vehicle in 4WD Low / High mode on dry, hard surface may cause damage to the drive line, excessive tyre, wear poor fuel economy & unnecessary noise, hence not recommended.
- Never select the 4WD mode if wheels are slipping. Stop the slipping or spinning before select the 4WD modes.





For the vehicles fitted with auto-lock free running hubs
Electric Shifting of Driving Modes (In vehicles with Electric 4WD Switch)

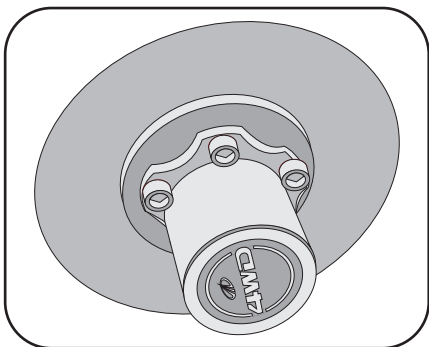
NOTE The switch is normally at 2H position indicating that you are in 2WD (Two-wheel drive) mode.

TO SHIFT TRANSFER	SHIFT PROCEDURE FOR ELECTRIC T/F CASE WITH AUTO LOCK-FREE-RUNNING HUBS
From 2H to 4H	• Turn Knob of the switch into 4H position • After 2 seconds the 4H indicator lamp starts glowing • You are now in the 4WH mode
From 4H to 4L	• <u>Stop the vehicle</u> • Keep the engine running • Depress the clutch pedal and turn the knob to 4L position • The 4H indicator lamp will blink for six seconds and go OFF • The 4WD LOW indicator lamp will start glowing • You are now in the 4WL mode
From 4L to 4H	• <u>Stop the vehicle</u> • Keep the engine running • Depress the clutch and turn the knob of the switch from 4L to 4H • The 4WD LOW indicator lamp will blink for six seconds and go OFF • The 4H indicator lamp will start glowing • You are now in the 4WH mode
From 4H to 2H	• Turn the knob from 4H position to 2H position • The 4H indicator lamp will go OFF • You are now in the 2WD mode

NOTE To release the front wheel locking hubs please refer the procedure under the section. "To Release the Locking Hubs" on Next page.



Shifting Driving Modes



Wheel Locking Hubs (Only for 4WD vehicles) Automatic Locking Hubs



When you shift to 4WD mode, an audible 'click' will indicate that automatic locking hubs are engaged and therefore power is being transmitted to the front wheels. While changing back to the 2WD mode, the hubs need to be released.

To Release the locking hubs

- Shift from 4WD to 2WD
- Reverse the vehicle in a straight line for about a metre
- An audible 'click' will indicate that the hubs have been released
- Unlocking is necessarily required to be done to isolate front axle & transfer case from transmission & from front wheels

CAUTION

If auto-lock hubs make a clattering noise when driving in 2H mode, stop and move the vehicle about 2 to 3 metres in backward direction.



When engaging & disengaging, the auto-lock hubs will make a clicking noise. It is normal.





Mechanical Lock Differential (MLD) (If applicable)

On the vehicle fitted with MLD, if one rear wheel begins to spin/slip, the mechanical lock differential is designed to help/improve traction by automatically getting locked and transmitting driving force to the other rear wheel fully. Hence spinning of the wheel is avoided & torque is transmitted to the wheel which is not slipping, which helps the vehicle to move on loose terrain.

After locking the MLD lock opens up automatically on the followings –

- 1) Torque reversal / coasting
- 2) Slight turning on the same side on which side the wheel was slipping
- 3) Slight steering input
- 4) Braking
- 5) The system gets de-activated over a speed of 30km/h

In normal driving condition the differential behaves as an open differential.

The MLD is more efficient than LSD

CAUTION

Do not start or run the engine while your vehicle is supported by a jack. The vehicle could be driven off from the jack and could cause a danger or result in fatal injury.



Use only a spare tyre of the same size, construction & load capacity as the original tyres on your Mahindra. Not doing so may cause damage to the MLD.

Limited-slip Differential (LSD) (If applicable)

On the vehicles fitted with LSD, if one rear wheel begins to spin / slip, the limited-slip differential is designed to help/improve traction by automatically transmitting driving force to the other rear wheel evenly. Hence spinning of one wheel is avoided and torque is transmitted to both wheels, which helps the vehicle to move on loose terrain. However during normal driving, differential action takes place in the same manner as in a standard differential.

CAUTION

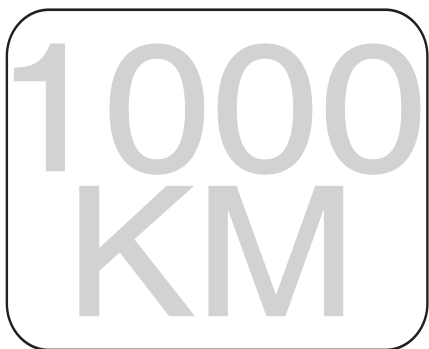
Do not start or run the engine while your vehicle is supported by a jack. The vehicle could be driven off from the jack and could cause a danger or result in fatal injury.



Use only a spare tyre of the same size, construction & load capacity as the original tyres on your Mahindra. Not doing so may cause damage to the LSD.



Driving in the Break-in Period



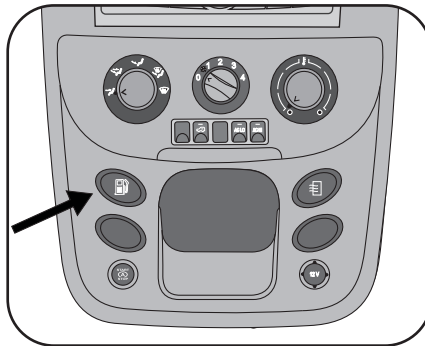
2.5.1



Instructions for Driving in the Break-in Period

You can assure your vehicle's future reliability, economical operation and performance by paying extra attention to how you drive during the first 1,000 km (600 miles). Follow these recommendations during this period:

- After starting the engine, do not rev it up; Warm up gradually at idling speed
- Do not drive over 100 km/hr. for the 1st 5,000 kms.
- Avoid sudden acceleration and full throttle
- Do not drive for a long time at a single speed; either increase or decrease the speed at intervals
- Do not drive slowly with the transmission in high gear
- Avoid hard braking; new brakes need to be broken-in by moderate use for the first 300 km
- Do not do full load or tow a trailer during first 5,000 kms of operation.
- Load carried by the vehicle should not exceed rated payload specified in technical specification.
- Avoid running the engine at high speeds at full load until it has reached its normal operating temperatures.
- These recommendations should be followed when the engine is overhauled or when the brakes pads / liners replaced.



Recommended Fuel

Fuel : Euro V diesel or higher grade for Euro V diesel engines.

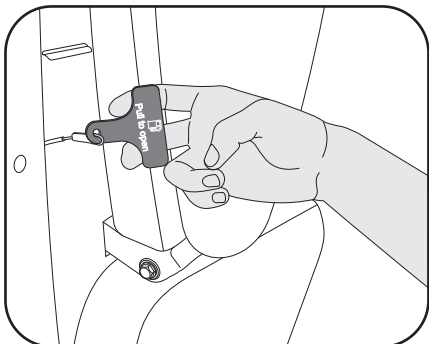
CAUTION

- Damage caused due to the use of substandard fuel / other than specified, will not be covered under Mahindra's warranty. The operation, power output and durability of the engine are affected to a great extent by the quality of the fuel. Please note that this engine is not designed to run on BIO Diesel. Using this fuel will result in damage to the fuel injection system.
- Never add fuel system additives or cleaning agents. These may damage the system. Use of petrol / kerosene in diesel engines will result in engine damage and adversely affect emissions. The use of Bio Diesel or LPG is also not recommended.

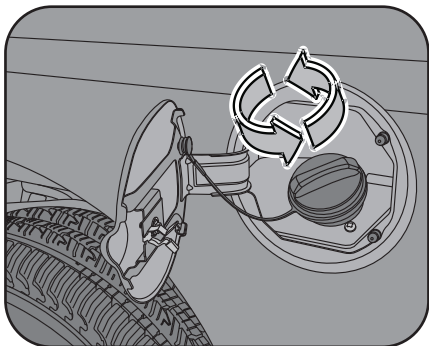


2.6.1

Fuel



Manual over ride for electrically operated fuel lid opening



2.6.2



Fuel-Lid Opening & Closing

Remote Operated Fuel Lid : To open the fuel lid, gently press the switch once, which is located in centre of instrument panel.



In the unlikely event of fuel lid not opening by electrical actuation, the operating cable is attached to a flat handle & located near Tail Light inspection Cover (LH side). Pull the flat handle to open the fuel lid.

Turn the fuel cap counter clockwise to open. Refuel & put the cap back in its place & tighten in the clockwise direction till three distinct clicks are heard.



Make sure the cap is tightened properly to prevent fuel spillage in case of an accident.



Fuel spray is dangerous. Fuel can burn skin & eyes and cause illness when ingested. Fuel spray happens when there is pressure inside the tank when the fuel cap is removed too fast. While removing the fuel cap, loosen the cap slightly and wait for any hissing noise to stop, before removing it.



Before refueling stop the engine. Always keep sparks or open flames away from the filler neck. Do not smoke while refueling.



CAUTION

Always use only a designated Mahindra fuel cap. The wrong cap can result in a serious malfunction of your vehicle fuel system and/or the emission control system.

NOTE If fuel is spilled on the vehicle body, flush it away with water to avoid paint damage.

NOTE For your own safety avoid using a mobile phone while refuelling.

Fuel Economy & Money-Saving Suggestions

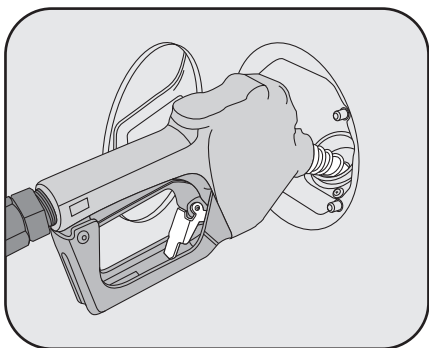
These suggestions are to help save money on fuel & repair costs.

- Maintain correct tyre pressure; Under-inflated tyres result in increased running resistance, leading to higher fuel consumption.
- Maintain proper front-wheel alignment; Improper front wheel alignment causes tyres to wear out faster and exerts more load on the engine, leading to higher fuel consumption.
- Avoid driving with excess weight; Excess weight increases load on the engine, leading to higher fuel consumption.
- Avoid prolonged engine idling;

- Avoid fast start and unnecessary stops; Avoid sudden acceleration or deceleration.
- Do not try to maintain the same speed up a hill; accelerate no more than you would on a level surfaces. Keep your foot in the same position on the accelerator.
- Driving with open window at high speed will increase fuel consumption.
- Avoid long warm-ups. Once the engine runs smoothly, start driving.
- Keep the engine tuned. Get the vehicle serviced at a Mahindra Authorised service centre regularly.
- Drive slowly on rough roads / crosswinds / headwinds.
- Drive the vehicle at optimum engine speeds.
- Maintain a clear air-cleaner; Clogged air-cleaner decreases the amount of air supplied to the engine, resulting in incomplete combustion and thus, wastage of fuel.
- Anticipate traffic conditions. Avoid traffic congestions whenever and wherever possible. This would lead to considerable fuel savings.



Fuel

**NOTE**

Do not drive with the air cleaner filter element removed. Doing so can cause excessive engine wear.

- Follow proper driving practices; Do not rest your foot on the clutch or brake pedals unnecessarily; It doesn't allow transmission of full engine power to the wheels and causes premature wear and results in poor fuel economy.
- Follow the recommended maintenance schedule; Get your vehicle checked and maintained periodically by a Mahindra Authorised Dealer.
- Use the air-conditioner only when necessary
- Use only recommended grade fuel
- Use only recommended grade oil
- Use only recommended coolant

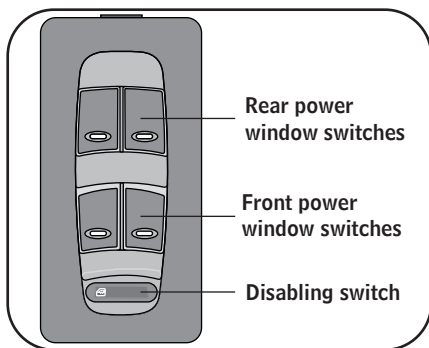
CAUTION

Never switch off the engine to coast down hill. Your vehicles power steering & brake booster may not function properly without the engine running.





Window Winding



Manual Winding (If fitted)

To manually open the windows, rotate the handle on the door pad clockwise and anti-clockwise to close the windows.

Power Assisted

The power windows system functions only when the ignition switch is in the IGN position. All windows can be operated by means of switches located on the center console. Rear windows can be wound or unwound individually using separate switches provided on the rear door trim pads.

- Push the switch to open the window
- Pull the switch to close the window

Smart Power Window With Anti Pinch (For front doors only) (If applicable)

Smart power window is one of the significant safety features with anti-pinch function, which automatically reverses the direction of glass if obstruction is detected during express up mode.

This feature consists of three functions:

- Auto UP
- Auto DOWN
- Anti Pinch during Auto UP



2.7.1



Functions:

Auto UP :

- Turn ON the Ignition.
- Pull the Driver door switch button more than 0.5 Sec. Glass will start moving in Upward direction. No need to hold the switch now.

AUTO DOWN:

Push the driver door switch button more than 0.5 sec, glass will start move in downward direction. No need to hold the switch now.

ANTIPINCH during Auto UP

During Auto up if any obstacle is detected with the force value ranging between 70~100 Newton, controller will sense the load and will reverse the direction of glass in down ward direction for almost full stroke length.

However if the force against the glass is less than the specified value then this function does not operate.

These all functions like Auto Up / down, Anti-pinch during Auto UP will get deactivated in case of removal of Vehicle Battery Positive or Negative terminal.

With de-activation of this feature, normal power windows will still function.

2.7.2



Smart Power Window Learning Procedure

- 1) Take the window glass to extreme bottom most position by continuously pressing the switch.
- 2) Start taking the glass up by pressing UP switch, hold the switch for two seconds after reaching to top most position, it will understand extreme top position of glass.
- 3) Start taking the glass down wards by pressing down switch, hold the switch for two seconds after reaching bottom most position, it will understand extreme bottom position of the glass.

With the above action, system will understand the complete one cycle and controller is learnt for that stroke length. Afterwards we can press the Up switch >0.5 Sec. Glass will start moving UP automatically. The same way is applicable for express down.

During express up, if movement of glass is obstructed by 70N force or more, the glass will start moving in down ward direction for almost full stroke length.



LIMITATIONS

- 1) In case of vehicle Battery terminal removal (Positive & negative) the express up/express down/ Anti pinch during express up will get disabled. However, the system will function like a normal power window.

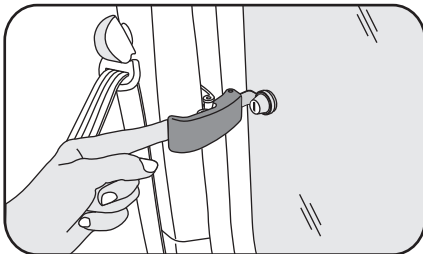
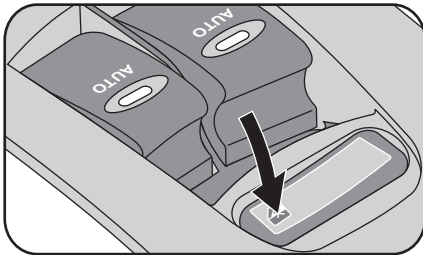
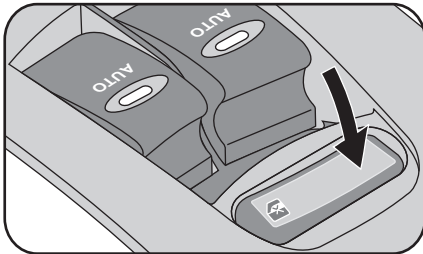
To initialise the function we have to learn the system for one complete cycle.

- 2) In case of hard weather strip condition in express Up mode, glass will treat it as an obstacle and glass will start moving down. This needs to be checked at recommended service stations.
- 3) Incase of anti-pinching 5 times continuously at the same point , controller will loose memory, so relearning of power window is required.

Rear Window Safety Switch

An additional switch in the center console disables the switches on the rear windows. When disabled, power windows in the rear can not be operated. We advise you to use this switch when there are children in the back seat.

Window Winding



2.7.4



- Press the switch to the left - To enable the operation of the rear power windows
- Press the switch to the Right - To disable the operation of the rear power windows

CAUTION

Always remove the ignition key when leaving children alone in the vehicle, to avoid risk of injuries due to unintended operation of power windows.



Make sure window opening is clear before closing the windows. It may be a dangerous, if someone's hand / head / neck could get caught in a closing window, and may result in serious injuries.

Quarter Windows

Sliding Windows

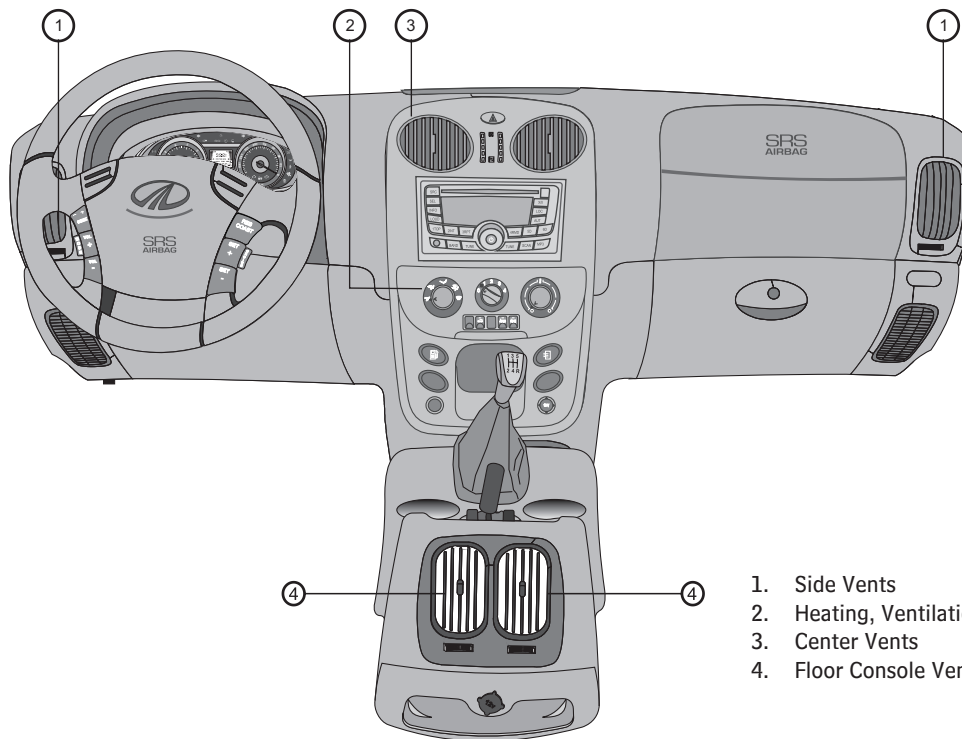
To open the window, depress the lever and slide it backwards. When closing the window, make sure to push it forward fully until you hear a click.

Flip Type Window

To open the quarter window, pull the latch handle towards you and swing it fully-out. When closing the window, make sure it is completely closed.



Heating, Ventilation, Air Conditioning



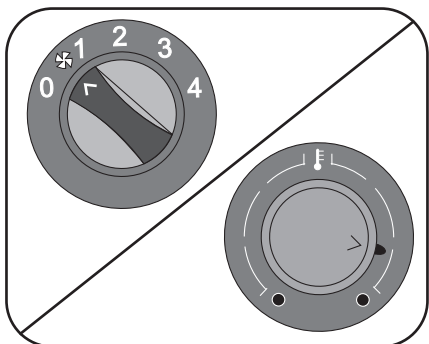
1. Side Vents
2. Heating, Ventilation & AC Switches
3. Center Vents
4. Floor Console Vent



2.8.1



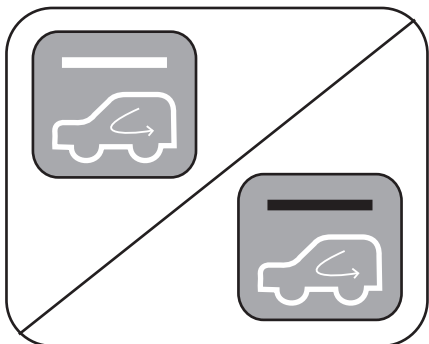
Heating, Ventilation, Air Conditioning



Blower Speed Control Knob: Blower speed can be regulated by turning the blower speed control knob.

- | | |
|-------------------|--------------|
| 0 Blower Off | 1 Low Speed |
| 2 Medium Speed | 3 High Speed |
| 4 Very High Speed | |

Temperature Control Knob: Air temperature can be controlled by turning the temperature control knob to blue (anti-clockwise) for cold or red (clockwise) for warm.



Fresh / Recirculation Air Selector Switch:

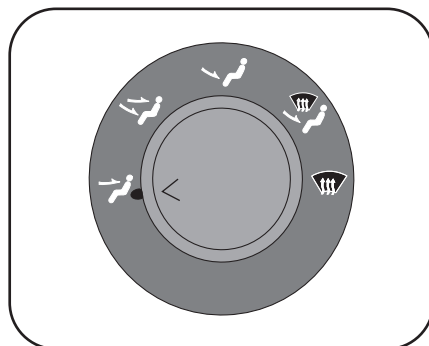
Fresh Air Mode: When light is OFF.

Recirculation mode when light is ON.





Heating, Ventilation, Air Conditioning



Air Distribution Control Knob: The knob can be used in the following modes to change the direction of the airflow. Operation is as follows:



Face Mode: Air stream flows primarily to the face level and console vents. A minor flow of air is directed to the windshield and the foot-well area.



Face/Foot-well Mode: Air stream flows to face vents, foot-well areas and to console vents.



Foot-well Mode: Air stream flows primarily to foot-well area and to the console vents. A minor portion is also directed to the side and center vents and to the windshield.

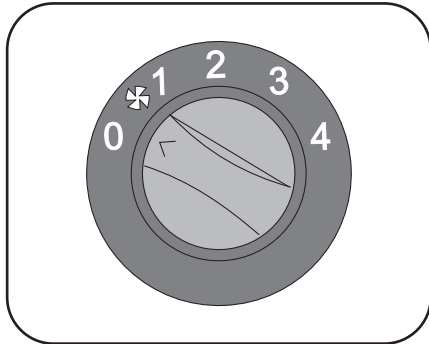


Foot-well/Defroster Mode: Air stream flows primarily to the foot-well area, the windshield vents and to the console vents. (Fresh air intake mode is preferable with this distribution)



Defroster Mode: Air stream is directed to the windshield. (Fresh air intake mode is preferable with this distribution).



**Heating, Ventilation, Air Conditioning**

Air Distribution: Airflow and direction can be regulated in the centre / side / floor console vents with the rotary controls and centre knobs.

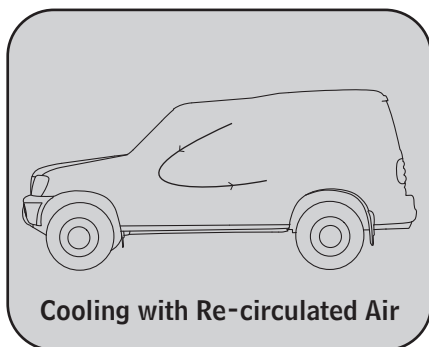
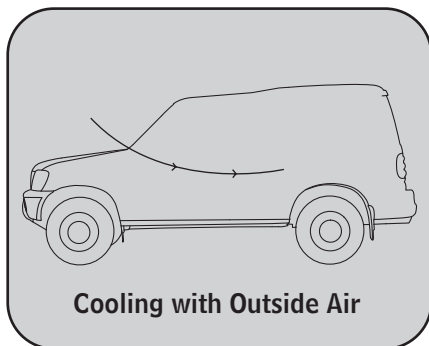
Center Vents: Airflow can be adjusted with rotary controls located between the centre vents. The airflow can be directed with knob at the centre of the vents.

Side and Console Vents: Airflow can be adjusted with rotary controls underneath the vents. The airflow can be directed with lever at the centre of the vent by swiveling up or down and from side to side.





Heating, Ventilation, Air Conditioning



Air Intake Selector

This switch is used to select the fresh outside air or recirculating inside air. To change the air intake mode, (Fresh or Recirculation mode) press the  switch.

Fresh Air Mode : The indicator light on the switch goes off when the air intake selector is in fresh air (outside air) mode.

Recirculation Air Mode : The indicator light on the switch is illuminated when the air intake selector is in recirculation mode.

With the **Fresh** air mode selected, air enters the vehicle through the filter from outside and is cooled / heated according to the function selected.

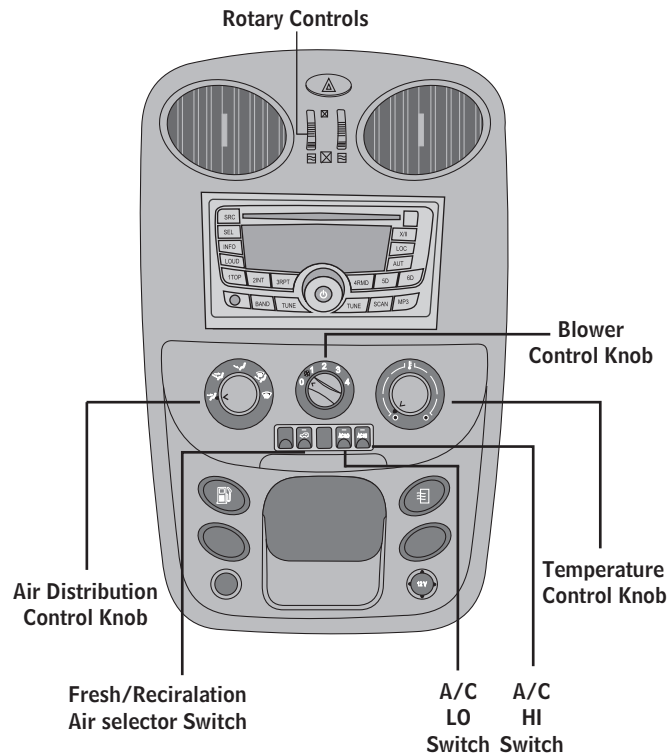
With the **Recirculation** air mode selected, the air from within the compartment will be drawn through the filter and is cooled / heated according to the function selected.

NOTE Do not use the recirculation () mode for long periods as it may cause the interior air to become stale and windows to mist up.



2.8.5

Heating, Ventilation, Air Conditioning



Operating the Air Conditioner

The air conditioner operates only when the engine is running with blower on and when the temperature is over $+4^{\circ}\text{C}$. To switch on the air conditioner, press the A/C HI or A/C LO switch.

Air Conditioner ON/OFF Switches (if applicable):

A/C LO Switch (ACLO): To turn ON the air-conditioner, press the A/C LO switch, and the indicator lamp will come on. Air conditioner starts to operate. To turn off the A/C LO, press the switch again.

A/C HI Switch (ACHI): If you need higher cooling, turn ON the air-conditioner by pressing A/C HI switch and the A/C HI indicator lamp will come on. To turn off the A/C HI, press the switch again.

If the A/C HI switch is pressed when A/C LO is on, it will switch on high cooling and the A/C LO will be switched off automatically and vice versa.

We recommend to operate in A/C LO mode for better fuel economy.



Heating, Ventilation, Air Conditioning



For the vehicles fitted with HVAC



If your vehicle has been parked in the hot sun with the windows closed, drive with windows open for few minutes. This will help to vent hot air out and allowing the air conditioner to cool the interior quickly.

- The air conditioner extracts humidity from cooled air. Therefore it is completely normal if a small pool of water forms underneath your parked vehicle.
- Make sure that the air intake grills in the windshield areas are not blocked (with leaves, ice/snow etc)
- On humid days, do not blow cold air on the wind shield & side window glass, because the difference between the outside & inside temperature could make the fogging worse.
- When driving the vehicle in dusty conditions, it is recommended to select the air intake to Recirculation mode temporarily, to avoid the outside dust entering the vehicle.
- The air conditioner should be operated for a few minutes at least once in a week. This helps prevent damage to the system due to lack of lubrication.

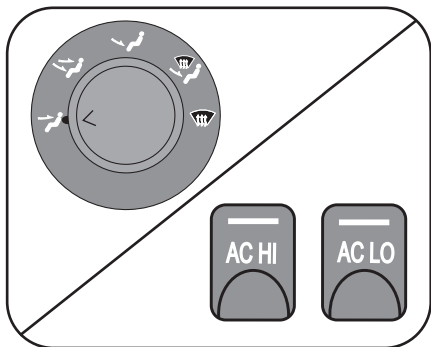
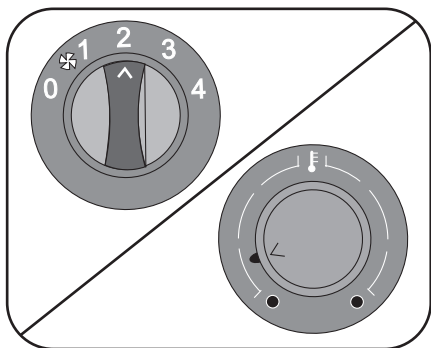
Shutting Out Unpleasant Odors: To shut out unpleasant odors, set the blower to re-circulated air.



2.8.7



Heating, Ventilation, Air Conditioning



Air conditioning (if applicable)

For cooling the vehicle interior,

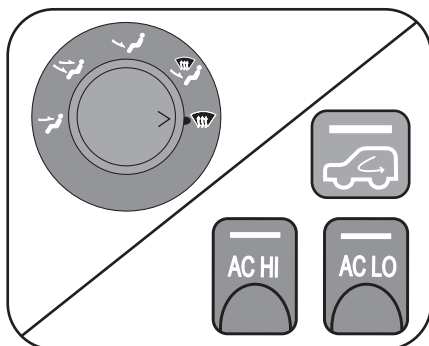
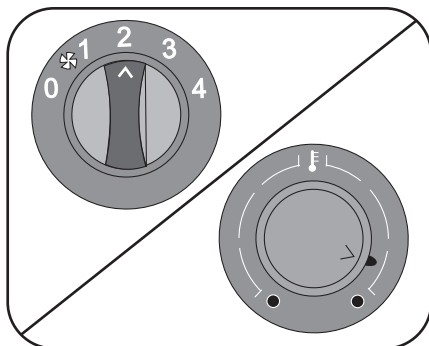
- Switch on the engine
- Set the blower to any speed except OFF
- Set the temperature control knob to cold (blue)
- Set the air distribution control knob to face mode
- Press the A/C HI or A/C LO switch.

(For fast cooling, select the recirculation mode)





Heating, Ventilation, Air Conditioning



Windshield Defogging (if applicable)

To defog inside of the windshield

- Switch on the engine
- Set the blower to any speed except OFF
- Set the temperature control knob to cold (blue)
- Select the fresh air intake mode.
- Set the air distribution control knob to defroster mode
- Press the A/C HI or A/C LO switch.



On humid days, do not blow cold air on the wind shield & side window glass, because the difference between the outside & inside temperature could make fogging worse.

Windshield Defrosting

To defrost outside of the windshield

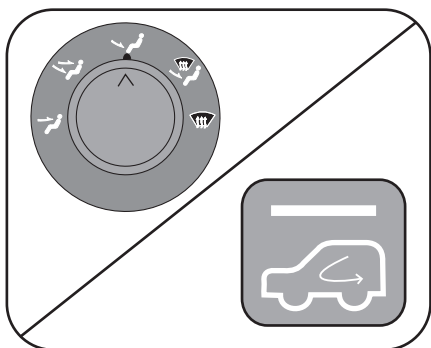
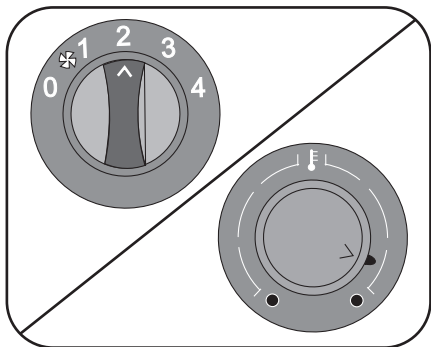
- Switch on the engine
- Set the blower to any speed except OFF
- Set the temperature control knob to hot (red)
- Select the fresh air intake mode.
- Set the air distribution control knob to defroster mode
- With the air conditioner off
- For heating the vehicle interior while windshield defrosting, select the Foot-well / Defroster mode, when required.



2.8.9



Heating, Ventilation, Air Conditioning



HEATING

Rapid Heating of Vehicle Interior:

- Switch on the engine
- Set the blower to any speed except OFF
- Set the temperature control knob to hot (red)
- Select the fresh air intake mode.
- Set the air distribution control knob to Foot-well mode
- With the air conditioner off

For fast heating the vehicle interior, select the recirculation air intake mode for a few minutes. To keep the windows from fogging, select the Fresh air intake mode, once the vehicle interior is warm.

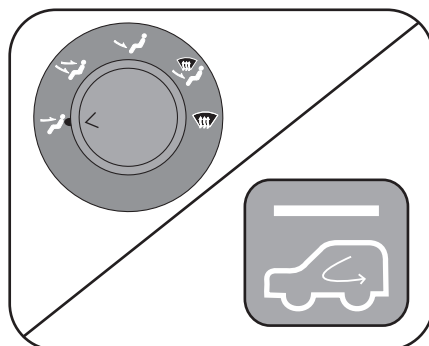
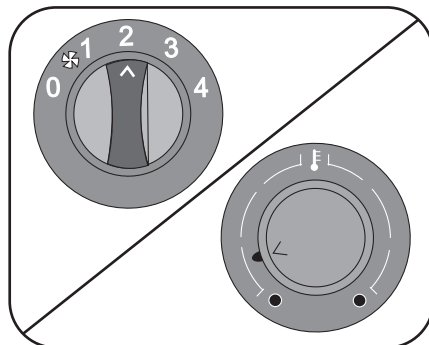
For heating the vehicle interior while windshield defrosting, select the Foot-well / Defroster mode, if required.

Switch on the A/C HI or A/C LO for dehumidified heating.





Heating, Ventilation, Air Conditioning



VENTILATION

For better ventilation :

- Set the blower to any speed except OFF
- Set the temperature control knob to cold (blue)
- Select the fresh air intake mode.
- Set the air distribution control knob to Face mode
- With the air conditioner off

NOTE

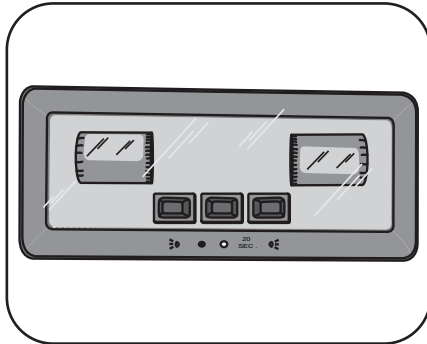
Your vehicles HVAC system is fitted with a filter in the air intake. Do not run the blower with filter removed. Running the blower with filter removed may result in blower motor malfunction. Have the filter cleaned / replaced by a Mahindra Authorised dealer as recommended / when required. The filter can be cleaned by gently tapping. Avoid blowing compressed air or any other method.



2.8.11



Other Equipment



Courtesy Lamp - Front

There are three operation modes to choose from:

The courtesy lamp remains permanently ON in this position. ●

The courtesy lamp remains permanently OFF in this position. ○

The courtesy lamp remains in AUTO (20 sec) mode in this position. ◐
20 SEC.

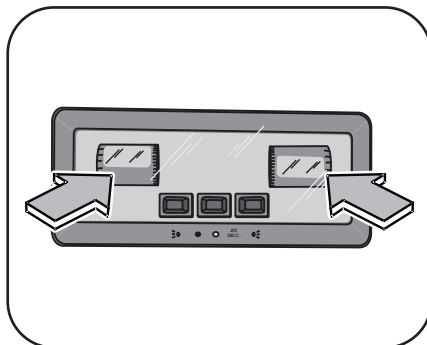
The functioning of courtesy lamp with switch in AUTO position is as below;

- Courtesy lamp is switched ON, starts dimming and goes OFF after about 20 seconds, when RKE is used for unlocking
- Courtesy lamp is switched ON, starts dimming and goes OFF after about 20 seconds, once the vehicle is stopped and the key removed from the ignition
- Courtesy lamp is switched ON, when any of the doors are opened
- Courtesy lamp dims and switches OFF after about 20 seconds on closing all the doors
- Courtesy lamp dims and switches OFF immediately when all the doors are closed and ignition turned ON
- If any of the doors remain open, the courtesy lamp remains ON, starts dimming and goes OFF after about 20 seconds
- Do not use the interior lights for extended periods of time with the engine stopped





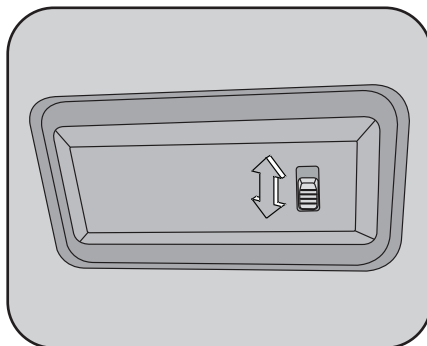
Other Equipment



Map Reading Lamp

There are two map reading lamps, one for the driver and the other for the front passenger.

Map reading lamp switch is a toggle switch with ON and OFF positions.



Courtesy Lamp-Rear

The Extreme positions of the courtesy lamp indicate ON & OFF position. The intermediate position indicates AUTO position.



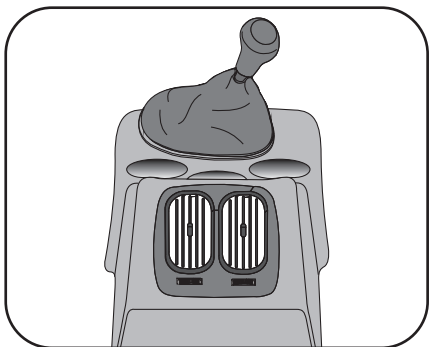
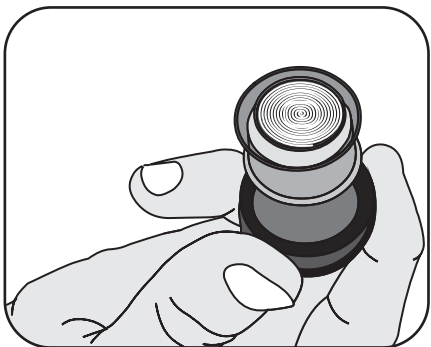
If both Front & Rear courtesy lamp are set in Auto position, then courtesy lamps will switch ON if any of the doors is opened.



2.9.2



Other Equipment



2.9.3



12 V Power Output

The 12V power supply socket is provided for power take off for other electrical instruments such as mobile phones etc and is located on the dash panel. An additional 12V power output socket is provided on the rear side of the floor console for the rear passenger use, on dual cab models.

NOTE

The Cigarette Lighter (if applicable) can be used on 12 power output socket. Press the lighter in to heat it up. When it reaches the correct temperature, the lighter will eject automatically and can then be withdrawn for use.

CAUTION

If the engine is off, the ignition key must be in the ON position for the lighter to operate. If the lighter does not pop out within 30 seconds, remove it to prevent overheating. Do not keep it pressed for a long period unnecessarily because it will overheat.

Hold the lighter by the handle

Front Ashtray

The ashtray is located on the floor console

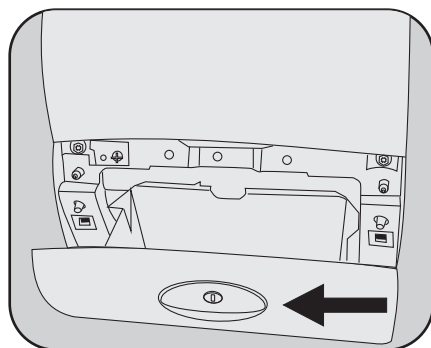
- To use, open the lid of the ashtray
- To empty, take out the ashtray just by pulling by hand.
- To fit it back just press the ashtray gently on its location.

Keep the ashtrays clean by emptying them regularly.

Do not use ashtrays for rubbish. You might start a fire.



Other Equipment



Smoking in the Vehicle

Avoid smoking inside the vehicle. Smoking in the vehicle spoils the ambience and the interiors of the vehicle.

- Do not throw a cigarette out of the window. It may land on somebody or may result in a fire hazard. Ashtrays have been provided for disposing ash and cigarette butts.
- Take care not to drop the cigarette on the seats. It may burn holes in the upholstery.

Grab Handles with Coat Hook:

Grab handles with coat hooks are located above the passenger door and the rear doors. A grab handle is also provided for pulling the door from inside.

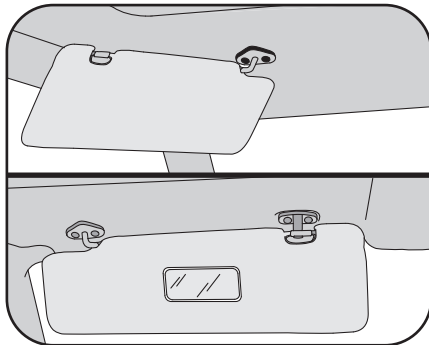
Glove Box:

To open, lift the handle on the glove box. Always keep the Owner's Manual in the glove box for ready reference. On selected models, a light is given for better visibility, and it will glow when the glove box is open.

Always keep the glove box closed after use.



2.9.4

**Other Equipment****Sun-visors:**

Sun-visors protect the eyes from bright light. They can be lowered, released from the retention clips and swiveled sideways towards the door. The sun-visor on the co-driver's side has a vanity mirror on its backside.

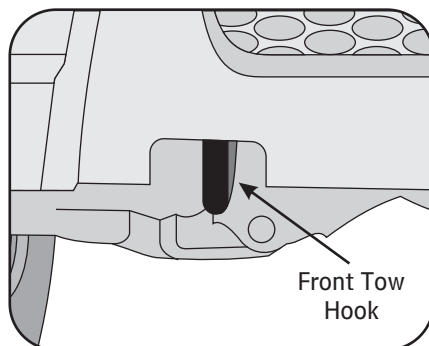
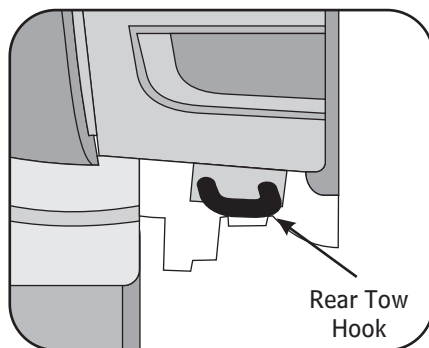
Additional power connection for extra fittings:

Use the 12V 10 Amps extra fitting connection point (where ever provided) for taking out supply for additional accessories.





Other Equipment



Front and Rear Tow Hooks: Your GOA comes with two towing eyelets. The front tow hook should be used when the vehicle needs towing, and the rear tow hook should be used when your vehicle is utilised for towing other vehicles.

Towing A Trailer

Your vehicle is designed as a passenger-&-load carrying vehicle. Towing a vehicle / trailer will have adverse effect on the vehicle performance, durability, driving economy and/or handling/braking. Your safety & satisfaction is depending on the correct use of proper equipment & cautious driving habits. Contact your Mahindra Authorised Dealer for further details before towing, as there may be some additional legal requirements in your state & or country.

Before towing, be sure of the total weight of your vehicle, trailer weight, gross axle weight and towing-tongue-load-capacity, are well within the permissible limits. And for further details on towing a trailer, call nearest Mahindra Authorised Dealer.



When towing a vehicle, a driver must be in the vehicle being towed to steer and operate the brakes.

CAUTION

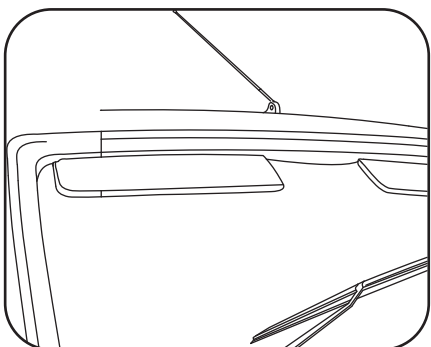
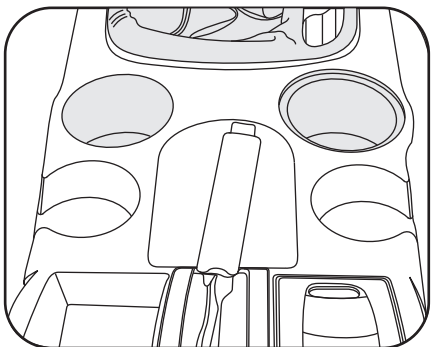
Use only the towing eyelets for towing; otherwise the vehicle may be damaged. Switch on the hazard lights when the vehicle is being towed.



2.9.6



Other Equipment



2.9.7



Cup Holder (Floor Console)

The cup holder is designed for holding cups or drink-cans securely

CAUTION

Do not place anything else other than cups or drink-cans in the cup holder. If doing it, it may cause the object thrown in the compartment and possibly injure people in the vehicle during sudden braking or in an accident. Using the cup holder to hold hot liquids when the vehicle is moving is dangerous. The contents may spill on the occupants and scald them.

Antenna

Lift the antenna to improve the reception of the tuner. This manually adjusted antenna must be lifted and lowered by hand.



To prevent damaging the antenna, lower it before entering a car wash facility or passing beneath a low overhead clearance. The Antenna is fitted with a left hand securing thread To unscrew the antenna it must be turned clockwise.

Floor Mat

CAUTION

Make sure the floor mat (if fitted) is properly secured on the floor carpet. If the floor mat slips and interferes with the movement of the pedals during driving, it may cause an accident.



Maintenance Schedule



Owner Maintenance Checks



Engine Oil Check



Battery Check



Appearance Care



Troubleshooting





Maintenance Schedule



REFER MAINTENANCE SCHEDULE CHART



Installation of non-genuine parts or accessories could be dangerous. Non-genuine & non-approved parts / accessories may fit into your vehicle, but they could seriously affect your vehicles performance or safety system which could cause a serious accident.

3.2.1



Maintenance Schedule

To make sure that your vehicle runs efficiently all the time, follow the maintenance schedule. The service intervals for the scheduled maintenance is determined by the odometer reading or by time interval, whichever comes earlier. Take your vehicle to a Mahindra Authorised Service Station only.

Trained technicians & genuine Mahindra parts at Mahindra Authorised Service Stations are best for your vehicle & they will perform all the scheduled maintenance jobs reliably and economically. Inadequate, incomplete & insufficient servicing may result in problems. This even may cause an accident.

The owner should retain records/documents that proper maintenance has been performed as prescribed.

Help Your Technician in Identifying Problems Quickly

A majority of the time taken in servicing goes in identifying problems. You can help your technician reduce this time by telling him about the conditions you experienced in your vehicle.

- When experiencing a problem, try to listen to any unusual noises made by the vehicle
- Engine coolant temperature continuously higher than the normal.
- Note if the vehicle is sluggish or feels different than normal
- Tell the technician about the circumstances prior to the moment you experienced the problem

The recommended service schedule is listed in the chart attached.

Maintenance Schedule Chart

Maintenance Schedule For M-Hawk Diesel Engine Work Nature	Distance Covered (in Kms) / Months in service whichever is earlier											
	PDI 500	5000/3m	10000/6m	20000/12m	30000/18m	40000/24m	50000/30m	60000/36m	70000/42m	80000/48m	90000/54m	100000/60m
Engine and Cooling System												
Engine oil		R	R	R	R	R	R	R	R	R	R	R
Engine oil filter		R	R	R	R	R	R	R	R	R	R	R
Check Engine Oil Level and leakage	I	I	I	I	I	I	I	I	I	I	I	I
Auto tensioner & Belt - AC Compressor & Water Pump								I		I		R
Auto tensioner & Belt - Alternator & Power steering								I		I		R
Check Clogging of Wiremesh at PCV End				I		I				I		I
Check the accessories drive belt for cracks, wear	I	I	I	I	I	I	I	I	I	I	I	I
Check Vacuum hoses connection	I	I	I	I	I	I	I	I	I	I	I	I
Check Diesel smoke (or) as per local regulation						I				I		
Engine Coolant						R				R		
Check Coolant level & hoses connection for leaks	I	I	I	I	I	I	I	I	I	I	I	I
Air, Fuel & Exhaust												
Replacement of Air Cleaner element (or when service indicator shows red band, whichever is earlier). Under extremely dusty conditions replacement period would be reduced to every 20000 kms						R				R		
Check & drain water from Fuel filter (or when indicator glows in cluster, whichever is earlier)		I	I	I	I	I	I	I	I	I	I	I
Fuel Filter Element				R		R		R		R		R
Check fuel lines / Rectify Fuel Leakage if any	I			I		I		I		I		I
Exhaust pipes and mountings, Check for wear & cracks	I			I		I		I		I		I
HVAC												
Mesh Element				R		R		R		R		R
Tighten the bolts on Bracket & Compressor			I	I	I	I	I	I	I	I	I	I
Clean the Evaporator (Every 40,000 Kms. Or every 9 months in normal condition & 4 months in dusty condition)						I				I		

Maintenance Schedule Chart

Maintenance Schedule For M-Hawk Diesel Engine Work Nature	Distance Covered (in Kms) / Months in service whichever is earlier											
	PDI 500	5000/3m	10000/6m	20000/12m	30000/18m	40000/24m	50000/30m	60000/36m	70000/42m	80000/48m	90000/54m	100000/60m
Clutch, Transmission & Transfer Case												
Clutch fluid. Check & Top up	I		I	I	I	R	I	I	I	R	I	I
Check clutch pedal operation	I	I	I	I	I	I	I	I	I	I	I	I
Transmission Oil, Check & Top up	I	R	I	R	I	R	I	R	I	R	I	R
Transfer Case Oil (For 4WD Models only), Check & Top up	I	R	I	R	I	R	I	R	I	R	I	R
Clean & refit breather (Transmission, Transfer Case)						I				I		
Steering												
Check Power steering reservoir fluid level and hose connection for leaks	I		I	I	I	I	I	I	I	I	I	I
Check all stg rods & arms (Loose, damage, wear)												
Tighten Intermediate shaft bolts	I		I	I	I	I	I	I	I	I	I	I
Check stg ball joint & dust covers			I	I	I	I	I	I	I	I	I	I
Check steering wheel linkages	I			I		I		I		I		I
Front Axle (4WD Models)												
Check, top-up if required & replace Front Axle differential gear oil	I	R	I	R	I	R	I	R	I	R	I	R
Clean & Refit Front Axle Breather						I				I		
Change grease in front wheel auto locking hub.							R					R
Check Front Axle Drive shafts. (Bent or boot damage)				I		I		I		I		I
Rear Axle												
Check, top-up if required & replace Rear Axle differential gear oil	I	R	I	R	I	R	I	R	I	R	I	R
Clean & Refit Rear Axle Breather						I				I		
Check & change Rear Axle wheel bearing grease & check for smooth rotation							R					R

Maintenance Schedule Chart

Maintenance Schedule For M-Hawk Diesel Engine Work Nature	Distance Covered (in Kms) / Months in service whichever is earlier											
	PDI 500	5000/3m	10000/6m	20000/12m	30000/18m	40000/24m	50000/30m	60000/36m	70000/42m	80000/48m	90000/54m	100000/60m
Brake												
Check or Change Brake Fluid	I	I	I	I	I	R	I	I	I	R	I	I
Check front brake pads, disc & other brake components for wear, deterioration & leaks			I	I	I	I	I	I	I	I	I	I
Check rear brake lining, drums & other brake components for wear, deterioration & leaks			I	I	I	I	I	I	I	I	I	I
Check brake pedal operation	I	I	I	I	I	I	I	I	I	I	I	I
Check and adjust parking brakes	I	I	I	I	I	I	I	I	I	I	I	I
Wheels & Tires												
Tire Rotation			I	I	I	I	I	I	I	I	I	I
Tires inflation pressure (Including Spare tyre)	I	I	I	I	I	I	I	I	I	I	I	I
Check tire for any external damage / cut	I	I	I	I	I	I	I	I	I	I	I	I
Wheel alignment	I	I	I	I	I	I	I	I	I	I	I	I
Propeller Shaft												
Check & Grease Propeller shaft & sliding yoke	I		I	I	I	I	I	I	I	I	I	I
Suspension												
Check the condition of rubber bushes in upper & lower link of front suspension. Replace if necessary					I			I			I	
Check condition of bushes, rubber links in anti-roll bar. Replace if necessary					I			I			I	
Check shock absorber & its bushes (for oil leakages/damages). Replace if necessary				I		I		I		I		I
Check condition of pivot bushes in top wishbone. Replace if necessary					I			I			I	
Check and tight the suspension arm mounting bolts & ball joint mounting bolts to the specified torque			I	I	I	I	I	I	I	I	I	I



3.2.4

AFTER DRIVING

Maintenance Schedule Chart

Maintenance Schedule For M-Hawk Diesel Engine Work Nature	Distance Covered (in Kms) / Months in service whichever is earlier											
	PDI 500	5000/3m	10000/6m	20000/12m	30000/18m	40000/24m	50000/30m	60000/36m	70000/42m	80000/48m	90000/54m	100000/60m
Pedals & Controls												
Check foot brake & clutch for free play & operation	I			I		I		I		I		I
Electrical												
Check the operation of all instruments, gauges, lights and accessories	I		I	I	I	I	I	I	I	I	I	I
Check Battery fluid level, specific gravity and conditions of battery terminals	I		I	I	I	I	I	I	I	I	I	I
Check Operation of Horn(s), wiper and washer	I		I	I	I	I	I	I	I	I	I	I
Check Operation of headlights (High & Low beam) & levelling mechanism	I		I	I	I	I	I	I	I	I	I	I
Check Operation of warning lights	I		I	I	I	I	I	I	I	I	I	I
Check & grease the wiper motor linkages (or once in a year before monsoon)	I		I	I	I	I	I	I	I	I	I	I
Interiors & Mechanisms												
Check Front and rear seats, and seat belts for operation	I											
Check all mouldings, trims and fittings for fit and alignment	I											
Check seat belts, buckles, retractors & adjuster	I			I		I		I		I		I
Check All windows for operation & alignment	I											
Check Hood, NVH covers, door panels for fit and alignment	I											
Check & lubricate Latches, Keys and locks for operation	I		I	I	I	I	I	I	I	I	I	I
Check & apply grease Door lock striker, Check arm, Bonnet opening lever & lock plate	I		I	I	I	I	I	I	I	I	I	I

Maintenance Schedule Chart

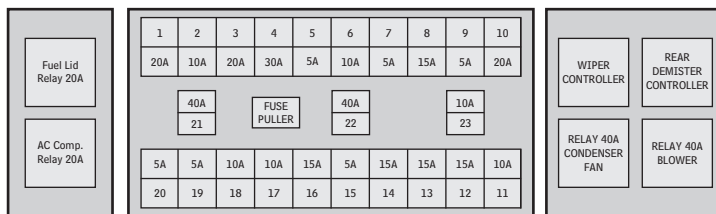
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I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace
R - Indicates Replace or change

Maintenance Schedule Chart

LUBRICATION CHART FOR DIESEL VEHICLES				
SYSTEM	PERFORMANCE SPECIFICATION	VISCOSITY GRADE SAE		FILLING VOLUME
	DIESEL ENGINES	Upto -10° C	-10° C & below	
Engine	API CH4, MB 228.3, VDS-2, DHD-1 and / or ACEA A5/B5; A3/B4	15W-40	5W-30	6 Litres
Engine Cooling	BASF MAKE "GLYSANTIN" G 37 / G 30 for Diesel Vehicle# Note: # Mix non-conductive (de mineralized) water with coolant externally & fill upto the max level. Ratio : 30% Coolant + 70% water for temperatures up to -10°C Below -10°C use 50% Coolant + 50% water			10 Litres
Manual Transmission	Manual Transmission Fluid	75W-90	75W-90	2 Litres
Electronic Transfer Case	ATF MEETING THE SPEC. OF DEXTRON III			1.2 Litres
Axles	SAE J2360	75W-90	75W-90	Rear Axle: 1.8 Litres & Front Axle: 1.2 Litres
Power Steering	SHELL SPIRAX S3 ATF MD3 / CALTEX MAKE "TEXAMATIC" 1888			~ 0.8 Litres
Brake & Clutch	Fluid Meeting SAE J 1703 FMVSS No.116; DOT 4 specifications			~ 0.9 Litres
Wheel Hub & Chassis Lubrication Points	LITHIUM COMPLEX GREASE	NLGI 2.5 (Mineral)	NLGI 2 (Synthetic)	As Required

Fuse & Relay Identification

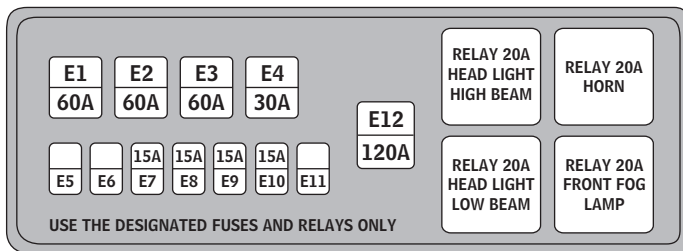


LOCATION : BEHIND DRIVER INSTRUMENT PANEL

Sl. No.	FUSE RATINGS	FUSE TYPE	COLOUR CODING	PROTECTED COMPONENT
1	20A	BLADE TYPE	GREEN	4WD ECU
2	10A	BLADE TYPE	RED	INTERIOR LAMP
3	20A	BLADE TYPE	YELLOW	FUEL LID / DRIVER DOOR PW
4	30A	BLADE TYPE	GREEN	CONDENSER FAN
5	5A	BLADE TYPE	ORANGE	TPMS BATTERY (Not Used)
6	10A	BLADE TYPE	RED	PARK LAMP / REAR FOG LAMP
7	5A	BLADE TYPE	ORANGE	DIAGNOSTIC / ICU
8	15A	BLADE TYPE	BLUE	REAR DE FOGGER
9	5A	BLADE TYPE	ORANGE	CENTRAL DOOR LOCKING (CDL-2)
10	20A	BLADE TYPE	YELLOW	CENTRAL DOOR LOCKING (CDL-1)
11	10A	BLADE TYPE	RED	REAR WIPER MOTOR
12	15A	BLADE TYPE	BLUE	FRONT WIPER MOTOR
13	15A	BLADE TYPE	BLUE	AIR CONDITIONING SYSTEM
14	15A	BLADE TYPE	BLUE	ACC SUPPLY
15	5A	BLADE TYPE	ORANGE	OUTSIDE REAR VIEW MIRROR
16	15A	BLADE TYPE	BLUE	AUTO TRANSMISSION (Not Used)
17	10A	BLADE TYPE	YELLOW	ECU
18	10A	BLADE TYPE	RED	TURN / REV
19	5A	BLADE TYPE	ORANGE	ABS
20	5A	BLADE TYPE	ORANGE	AIR BAG
21	40A	MAXI FUSE	GREEN	POWER WINDOW
22	40A	MAXI FUSE	GREEN	AC BLOWER
23	10A	BLADE TYPE	RED	AUDIO KEY IN

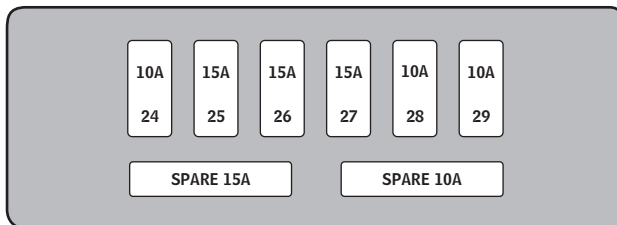


Fuse & Relay Identification



LOCATION : ENGINE COMPARTMENT (RH SIDE)

Sl. No.	FUSE RATINGS	FUSE TYPE	COLOUR CODING	PROTECTED COMPONENT
E1	60A	MAXI FUSE	YELLOW	Maxi Fuse 1
E2	60A	MAXI FUSE	YELLOW	Maxi Fuse 2
E3	60A	MAXI FUSE	YELLOW	GLOW PLUG / ABS
E4	30A	MAXI FUSE	PINK	CRDe ECU
E7	15A	BLADE TYPE	BLUE	FRONT FOG LAMP
E8	15A	BLADE TYPE	BLUE	HEAD LAMP HI BEAM
E9	15A	BLADE TYPE	BLUE	HEAD LAMP LOW BEAM
E10	15A	BLADE TYPE	BLUE	HORN & HAZARD
E12	120A	MAXI FUSE	WHITE	CHARGING SYSTEM

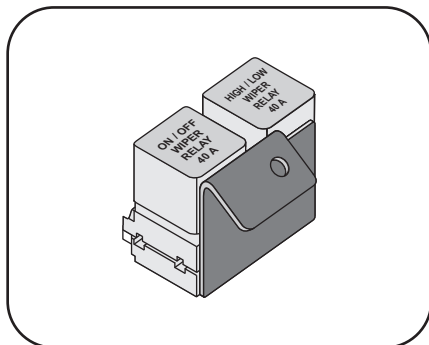


LOCATION : RIGHT HAND SIDE A PILLAR BOTTOM

Sl. No.	FUSE RATINGS	FUSE TYPE	COLOUR CODING	PROTECTED COMPONENT
24	10A	BLADE TYPE	RED	ECU TERMINAL SUPPLY
25	15A	BLADE TYPE	BLUE	K03/K05-ECU TERMINAL
26	15A	BLADE TYPE	BLUE	BRAKE SWITCH
27	15A	BLADE TYPE	BLUE	BPA / EGR / HFM / CLUSTER
28	10A	BLADE TYPE	BLUE	COMP RELAY / AC ON RELAY
29	10A	BLADE TYPE	RED	LAMBDA SENSOR



Fuse & Relay Identification



Fuses

Your vehicle electrical system is protected by fuses. If any lights accessories or controls do not work, check the appropriate circuit fuse. If the inside element is melted indicates that the fuse is blown. Fuse box is provided inside the IP-driver panel and in the engine compartment.

To replace the blown fuse

- Turn off the ignition switch and other controls / switches.
- Open the IP-driver panel.
- Pull the fuse straight out with help of fuse puller provided on the fuse panel.

- Inspect it and replace if it is blown.
- Take a new fuse of the same rating from the spare fuses provided and fit it tightly in the appropriate fuse slot.

If you have no spare fuses, borrow one of the same ratings from a circuit not essential to vehicle operation. Get the spare fuses replenished at a Mahindra Authorised dealer.

CAUTION

Always replace a fuse with one of the same rating. Otherwise it will damage the vehicle electrical system.

If the engine is not starting or headlights do not work and the fuses in the instrument panel are okay, check the (high current) fuses in the engine compartment. If the fuses are blown, it must be replaced by Mahindra Authorised dealer or by a qualified technician.

To replace the heavy fuses

- Turn off the ignition switch and other controls / switches.
- Open the bonnet & secure it with stay rod
- Remove the negative battery terminal
- Open the fuse cover
- If fuse is blown, replace with a new one of the same rating.
- Install the fuse cover



3.4.3



Light / Bulb Specifications



CAUTION

Using bulbs with units of higher output capacity/wattage is illegal and may damage your vehicle electrical system.

Replacing The Lights Bulb

When replacing a bulb, make sure the ignition switch and light switch are off. Use only the correct wattage rating bulbs (refer the table for rating).

TABLE ON LIGHT BULB & UNITS, WATTAGE AND TYPE

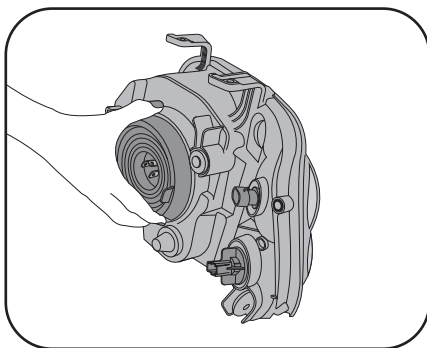
LIGHT BULB	WATTAGE	CAP TYPE	NO. OF BULBS / Veh
Headlights	60/55W	H4 - P43T	2
Front turn signal lights	21W Amber	BAU15D	2
Front parking lights	5W	W5W	2
Side turn signal lights (Fender)	5W	W5W	2
High mount stop light (tail door type1)	5W	W5W	3
High mount stop light (tail door type2)	21W	BAS15D	1
High mount stop light (rear spoiler)	2.3W	W2.3W	8
Brake / tail lights	21/5 W	BAY15D	2
Rear Turn-signal lights	21W	BAS15D	2
Reverse lights	21W	BAS15D	2
Rear Fog light	21W	BAS15D	1
Rear License plate lights	5W	W5W	2
Interior lights bulb type 1 #	10W	C10W	1
Interior lights bulb type 2 #	10W	C10W	1
Side foot step lights *	5W	W5W	4
Glove box light *	3W	W3W	1

* - on selected models # - model specific





Self Maintenance Checks



CAUTION

To avoid burning yourself, do not replace the light bulbs when they are hot. Halogen bulbs have pressurized gas inside and are to be handled with special care. Mishandling may cause the bulb to burst or shatter. Hold the bulb with its metal / plastic and do not touch the glass part with bare hands.

Headlight Bulb

The headlight bulb can be replaced without removing the headlight assembly from vehicle. To replace the headlight bulb;

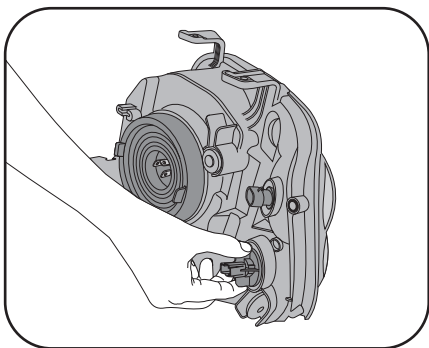
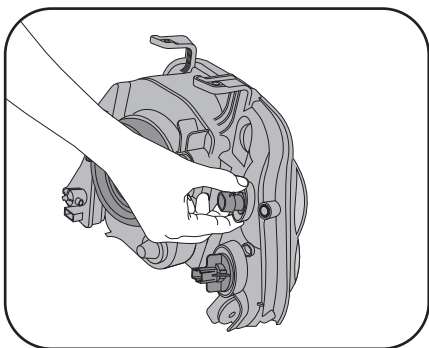
- Disconnect the negative terminal from the battery.
- Remove the rear dust cover from the headlight.
- Remove the bulb assy with connector from the headlight by unlocking the wire clamp.
- Detach the bulb assy from the wiring connector near to the headlight.
- Insert the connector into the new bulb assy (of the same wattage), and follow the reverse procedure to assemble the bulb assy in the headlight assy.
- Clamp the bulb assy wire securing clamp properly.



3.6.1



Self Maintenance Checks



Front Parking & turn-signal light bulbs

Parking Light

- Disconnect the negative terminal from the battery.
- Remove the (upper) wiring connector
- Turn the bulb assy in an anti-clockwise direction to remove it from the head light assy
- Insert the new bulb assy and turn in a clock wise direction to fit it properly
- Re-connect the wiring connector

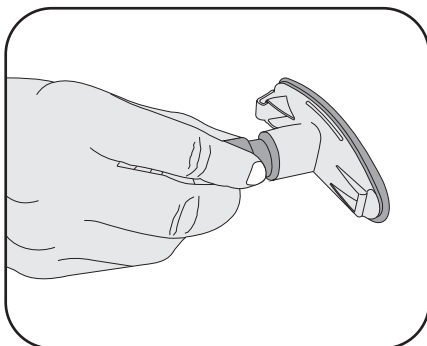
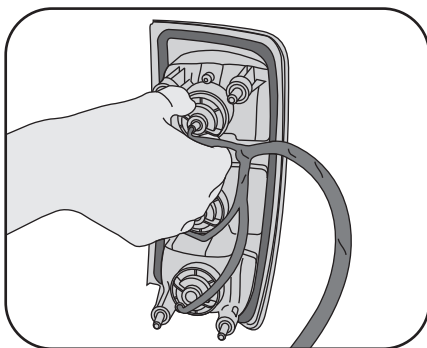
Turn Indicator

- Turn the bulb holder in an anticlockwise direction to remove the bulb holder
- Pull out the bulb holder from head light assy
- Replace the burned out bulb with a new bulb of the same wattage
- Refit the bulb & holder assy into the head lamp
- Turn the bulb holder clockwise to lock it in place.





Self Maintenance Checks



Rear Parking, turn-signal & tail light bulbs

- Disconnect the negative terminal from the battery.
- Remove the inspection cover from the inside cargo box by loosening the screws
- Turn the respective bulb holder assy in anti-clock wise direction to remove it from light assy
- Replace the bulb in the holder
- Re-assemble the bulb & holder assy back to the light assembly in the respective slot.
- Turn the bulb holder clockwise to lock it.
- Fit back the inspection cover

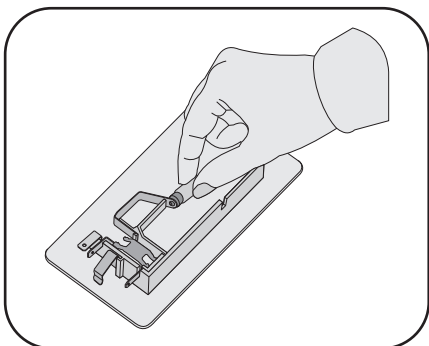
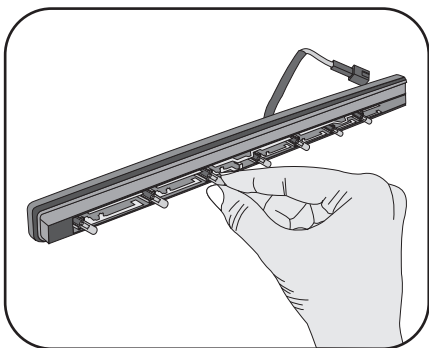
Fender Side turn-signal light bulbs

- Use a small flat head screw driver as tool at the front side of light assy to remove it from the vehicle body panel
- Pull out the bulb holder from the lens
- Replace the burned out bulb with new one
- Insert the bulb holder back into the lens
- To assemble it back into the vehicles body, hold the hook at the rear side first and press the front side of the lens,



3.6.3

Self Maintenance Checks



High mounted (rear spoiler) light bulbs - (on selected models only)

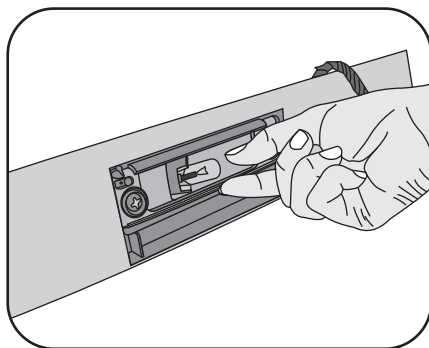
- Take out the light (HMST) assy by loosening the mounting screws located on the top of the rear spoiler
- Dismantle the light assy & take off the bulb holder strip by loosening the screws on the back of the light assy
- Replace the bulbs of the same rating
- Re-assemble the light assy and follow the reverse procedure to fit the light back on the rear spoiler

High mounted (inner roof) light bulbs

- Remove the light assy from the tail door by loosening the mounting screws
- Dismantle the lamp lens, outer cover & reflector by loosening the screws
- Replace the bulb with the same rating & type
- Re-assemble the light assy and follow the reverse procedure to fit the light back to the tail door



Self Maintenance Checks



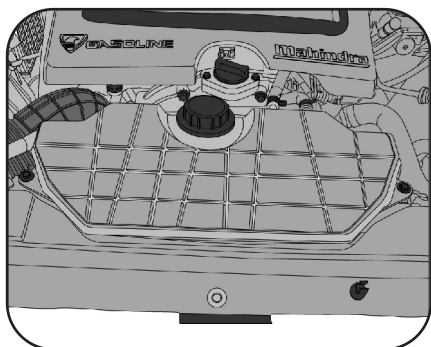
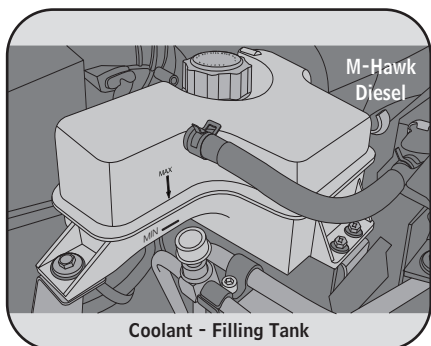
Rear registration plate light bulbs

- Remove the light lens & gasket by loosening the screws
- Pull out the burned bulbs and replace with new bulb of the same rating
- Fit back the lens & gasket by tightening the screws (Replace the gasket, if it is damaged)



3.6.5

Self Maintenance Checks



3.6.6



Maintenance of your vehicle is best performed at a Mahindra Authorised Dealer. However, for your vehicle to function in peak condition, it is necessary that you do a little maintenance yourself. This section provides maintenance instructions that are relatively easy to perform. Take maximum care when working on the vehicle to prevent accidental injury.

Check the following at regular intervals.

- **Lights :** Make sure the headlights, stop lights, tail lights, turn signal lights and other lights are working properly. And also check the headlight aim.
- **Engine oil level:** These items can be checked when you fill the fuel tank
- **Engine coolant level:** Check the radiator reserve tank / coolant filling tank every time you fill the fuel tank.
- **Windshield Wipers:** Check the wiper condition every month; Check for wear, cracks or other damage

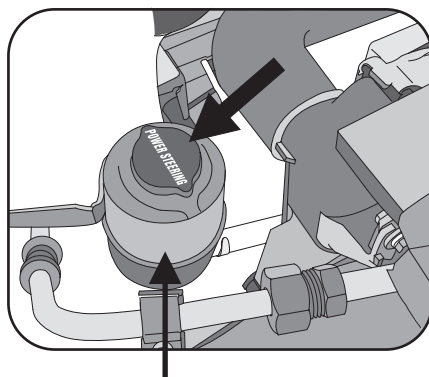
CAUTION

Working near the engine when it is running is dangerous. When the engine is running, keep hands, loose clothing, neckties, scarves & tools away from the fan and engine drive belts.

CAUTION

If the engine is hot, do not remove / loosen the radiator cap / coolant filling tank to prevent burning yourself.

Self Maintenance Checks



Power Steering Fluid Reservoir

Brakes : Check the brake fluid level regularly, if the level is low add brake fluid until it reaches Max level. It should be kept at max level.



Low brake fluid level could be dangerous. Low level could signal brake lining wear or a brake system fluid leak, which may lead to a system failure and could result in a serious accident. If you find the fluid level low, have the brake system checked by a Mahindra Authorised dealer.

If brake fluid gets into your eyes, it could cause serious injury. If this happens, immediately flush your eyes with water and get medical attention.

CAUTION

Brake fluid can damage the painted surface & interior /exterior trims. If brake fluid gets on these surfaces, wipe it off immediately.

Power steering: Check the oil level regularly when engine is turned off. If the level is low add the recommended power steering fluid until it reaches Max level. It should be kept between Max & Min level.

- **Brake pedal:** Check the brake pedal for smooth operation
- **Clutch pedal:** Check the clutch pedal for smooth operation
- **Parking brake:** Check the parking brake lever for smooth operation
- **Tyres:** Check the tyres for air pressure; Check tread every month for wear and foreign objects
- **Battery:** Check battery and terminals for corrosion



3.6.7



Self Maintenance Checks



CAUTION

Be extremely cautious when working on the battery. It contains corrosive & poisonous sulphuric acid.

Air conditioner: Check its operation for effective cooling every week; Note any drop in cooling efficiency

Windshield washer fluid : Check that there is adequate fluid in the tank.

Windscreen defroster : Check the fan, heater and air conditioner every month

Doors : Check all doors including the tail gate for smooth opening/closing and secure locking

Seat Belts : Check that all parts of the seat belt system are working properly and smoothly. Check the belt webbing for cuts, fraying, wear or damage.

ADDING WINDSHIELD WASHER FLUID

If the washer does not work, the washer tank may be empty. Add washer fluid.

Use recommended washer fluid or plain water (in case of non-availability of fluid). For the vehicles operating in cold areas where the temperature is below freezing, use the recommended washer fluid which contains antifreeze.

3.6.8



Do not spill engine antifreeze or any other fluids , because it may damage your vehicle's paint finish.

Regular cleaning and polishing of your vehicle helps keep it looking new.

Windscreen Wiper Blades

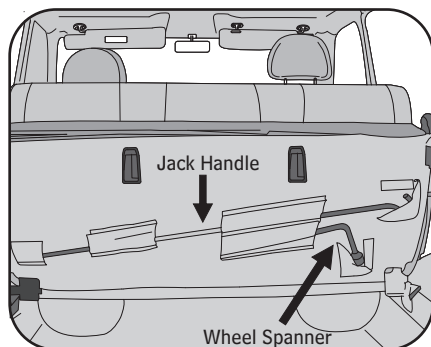
When the wipers no longer clean well, the blades are probably worn or cracked. Replace them.

CAUTION

To prevent damage to the wiper arms and other components, do not move the wipers by hand.

- Do not operate the wipers on a dry screen
- In freezing or very hot conditions, ensure that the blades are not frozen or stuck to the glass
- In winter, remove any snow or ice from around the arms and blades, including the wiped area of the windscreen.

Self Maintenance Checks



Toolkit

Jack: The jack is located under the front left hand side seat.

Wheel spanner & jack handle: The tools can be found strapped on to the bottom of the 2nd row seat.

Toolkit bag: Located under the front left hand side seat.

Identifying Vehicle Problems

To identify problems with your vehicle, pay close attention to the following:

Fluid leaks: If you frequently find puddles underneath the vehicle, you may be able to identify the origin from the color/odour of the fluid.

- Coolant is usually bright green
- Oil is brown
- Power steering fluid is generally red
- Brake fluid is either tan or clear
- Fuel (diesel/petrol) has a distinct odor
- If the fluid is plain water, touch it. If the water is cold, then it may be the condensation from your air conditioning system and is nothing to worry about.

Warning Lights: Warning lights on your dash board give important information about your vehicle. Go through the section on the instrument panel to learn about warning lights.



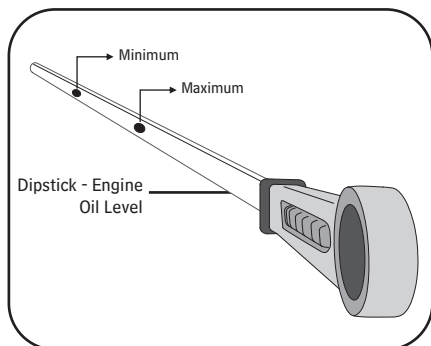
For CRDe diesel engine

Never try to work on injection system with engine running. There is extremely high pressure within the high-pressure pump, rail, injectors and high pressure pipes. High pressure spray produced by fuel leaks may cause serious injuries.



3.6.9

Engine Oil Check



Engine Oil Check

Engine oil has the primary functions of lubricating and cooling the engine. It plays a major role in maintaining the engine in proper working order. Therefore, it is essential to check the engine oil regularly.

Engine oil consumption:

It is normal for engines to consume some engine oil during operation. Causes of consumption in a normal engine are as follows:

Oil is used to lubricate pistons, piston rings and cylinders. A thin film of oil, is left over as when pistons move in cylinders, A small amount is sucked into the combustion chamber due to high negative pressure generated when the vehicle is decelerating. This oil gets burnt in the combustion chamber.

Oil is also used to lubricate the stems of intake valves. Some of this oil is sucked into the combustion chamber together with the intake air and is burnt there.

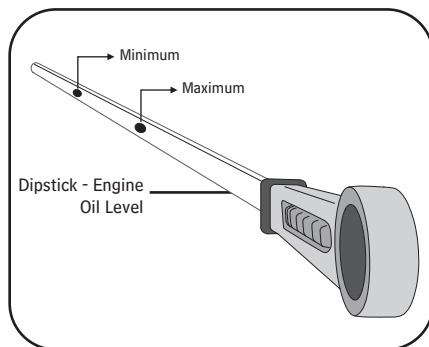
Engine oil consumption depends upon the viscosity and quality of the oil, and upon the conditions in which the vehicle is driven. Oil consumption will be more due to high speed driving and frequent acceleration and deceleration. A new engine may consume more oil since its pistons, piston rings and cylinder walls are not conditioned.



If the oil pressure warning light glows continuously, Stop, turn off the engine, check the engine oil level and add the recommended grade of oil, if necessary.



Engine Oil Check



Checking the Engine Oil

- Be sure the vehicle is on a level surface.
- Warm up the engine to normal temperature
- Turn it off and wait for 10~15 minutes for the oil to return to the sump. Pull out the dipstick and Wipe the dipstick with a clean cloth or paper towel
- Insert it all the way back in its tube
- Remove the dipstick again and check the level. It should be between the maximum and minimum marks. If the level is close to the minimum mark, add oil.

CAUTION

A hot engine is dangerous. If the engine has been running, parts of engine / engine compartment can become very hot. You could get burned / injured. Avoid working around the engine when it is hot.

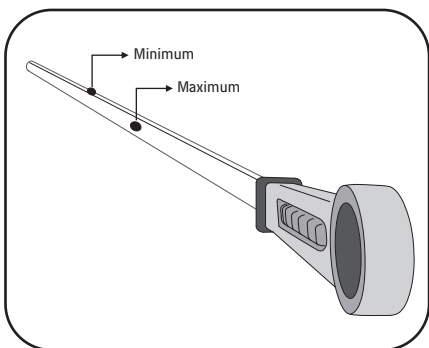
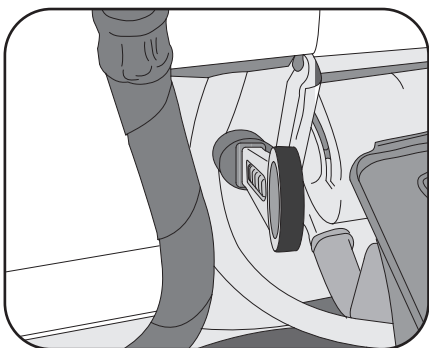
Changing the Engine Oil

- Remove the drain plug in the sump
- Drain the engine oil
- Put the plug back in place, using a new sump plug washer.
- Fill with recommended engine oil (Refer lubrication chart given on the start of this chapter.)



3.7.2

Engine Oil Check



NOTE

Change the engine oil every time you replace the oil filter. Mahindra recommends the use of correct grade of engine oil according to the temperature conditions the vehicle is being operated. Changing the engine oil and the coolant should be done by an Authorised Mahindra dealer.

The drain plug has a magnet that attracts metallic particles. Hence, clean the drain plug every time the engine oil is changed.

Failure to check the engine oil level regularly may lead to engine damage or poor performance due to insufficient lubrication.

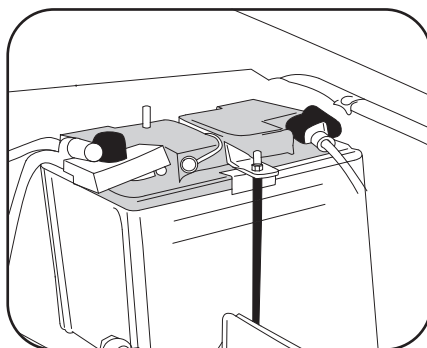
CAUTION

- Do not add engine oil over maximum mark.
- Used engine oil contains harmful contaminants which may cause skin disorders. Avoid prolonged / repeated direct contact with used engine oil. Wash your hands thoroughly with soap & water.
- Do not leave used engine oil within the reach of children.
- Dispose used oil & filters in a safe & acceptable manner. Do not dispose in sewage or house hold waste.

Oil Filters : Replace the oil filters at recommended intervals.



Battery Check



Checking Battery Condition

Battery Exterior

Check the battery exterior for corroded or loose terminal connections, cracks or loose hold-down clamp. First remove the ground cable from the negative ('-') terminal. After checking both terminals and the cables. The negative terminal should be installed last. If the battery terminals are corroded, wash them with a solution of warm water and baking soda.

CAUTION

Prevent further corrosion by applying petroleum jelly to the outside of the terminals. If the terminal connections are loose, tighten their clamp nuts, but do not tighten excessively. Tighten the hold-down clamp only enough to keep the battery firmly in place. Tightening excessively may damage the battery's case.

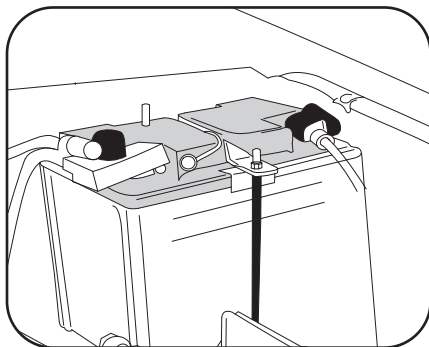
- Be sure the engine and all accessories are turned OFF before performing maintenance.
- When washing, ensure that the washing solution does not get into the battery
- Do not remove the battery connection while engine is running. This may cause serious damage to fuel system, ECU and to other electronic components.



3.8.1



Battery Check



- Always disconnect the negative terminal cable first from the battery. But, when reconnecting, always connect the cable to the positive terminal first.

Checking Electrolyte Level

Check the electrolyte level and specific gravity at intervals of three months. Check all the six cells for electrolyte level. If the level is below the lower marker, add distilled water until the level reaches the upper marker.

Adding Distilled Water

- Remove the vent plugs
- Add distilled water to all the cells that require the fluid
- Secure the plugs properly

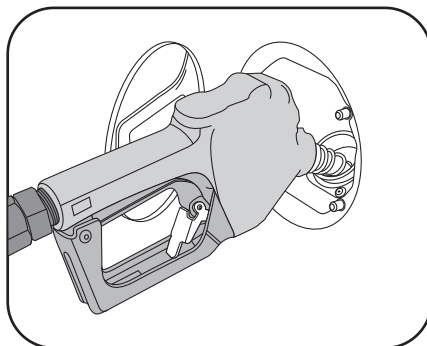
CAUTION

Do not fill distilled water beyond the upper mark level. Excessive electrolyte could squirt out of the battery during heavy charging, causing corrosion or damage.





Catalytic Converter / Fuel



Catalytic Converter (If applicable)

The catalytic converter is an emission control equipment fitted in the exhaust system, that reduces pollutants by converting poisonous exhaust emissions from the engine into less environment polluting gases. It converts harmful un-burnt hydrocarbons, carbon monoxide and oxides of nitrogen into harmless carbon dioxide, water vapor and nitrogen.

Care and maintenance to minimize the possibility of damage to the catalytic converter.

- Maintain the engine in the proper operating conditions
- Consult a Mahindra Authorised Dealer/Service Center at the earliest in the event of irregular running of engine following a cold start, misfiring, a significant loss of vehicle drivability or other unusual malfunctions which may indicate a fault in the ignition system.



3.9.1



Catalytic Converter/Fuel



CAUTION

- Avoid jump starting of the engine by pushing or towing the vehicle, or by coasting downhill.
Euro V diesel or higher grade for Euro V diesel engines.
- Avoid frequent cold starts.

NOTE

Even if the emission control system is operating properly, under certain engine operating conditions there may be an unusual exhaust smell from the vehicle.



High temperatures within the catalytic converter (in very unfavorable conditions) may cause fire if it comes in contact with flammable materials. Therefore the vehicle should be parked in such a way that the catalytic converter does not come in contact with flammable materials such as grass, leaves, paper or rags.

CAUTION

- Avoid inhaling the engine exhaust fumes.
- Do not run the engine in a closed area / garage except for time needed to take the vehicle in & out. The exhaust gas reduces the oxygen content in the air and can cause unconsciousness or even death.
- If exhaust smells / fumes are detected inside the vehicle, drive the vehicle with windows fully open and have the cause immediately rectified.





Engine Maintenance Checks



CAUTION

Never drive the vehicle if the fuel tank is nearing empty (in vehicle fitted with catalytic converter). This can cause irregular fuel supply leading to misfiring. Misfiring allows unburned fuel into the exhaust system which can cause overheating and damage the catalytic converter.

Misfiring can also cause a loss of power and a rough running engine. This may be due to a fault within the injection system. In such circumstances, reduce speed immediately and have the fault rectified. Remember your Mahindra dealer knows best about your vehicle and its emission control system.

- Do not switch off the engine or interrupt the ignition when the gearbox is engaged and the vehicle is in motion
- Do not idle the vehicle for prolonged periods if idling seems rough it could indicate other malfunctions
- Do not empty the fuel tank totally
- Do not switch off the ignition when the vehicle is coasting down a slope
- Do not park or operate the vehicle near combustible materials such as dry grass and leaves as this may lead to fire hazard.
- Avoid driving on flooded roads
- Do not operate the engine in confined areas such as garages
 - Check for exhaust system leaks and any other damage:
 - Each time your vehicle is raised up for an oil change
 - Whenever you notice a change in the sound of the exhaust system
 - Whenever the tail pipe end of the exhaust system is found to be found rusty



3.10.1



Tyre Inspection & Rotation



The recommended tyre pressures for front and rear tyres (Laden/Partial Laden), in cold condition, are as under :

P235 / 70 R16 & P235 / 75 R15		
	Laden	Partial Laden
FRONT in Kg/cm ² (PSI)	2.2 (32)	2.2 (32)
REAR in Kg/cm ² (PSI)	2.2 (32)	2.2 (32)

* Laden - Fully loaded vehicle

Partial Laden - Up to 5 persons + 40 kg luggage

Tyre Pressures

For proper performance, safety, and better fuel economy, always maintain the recommended tyre pressure and stay within the recommended load limits and proper weight distribution.

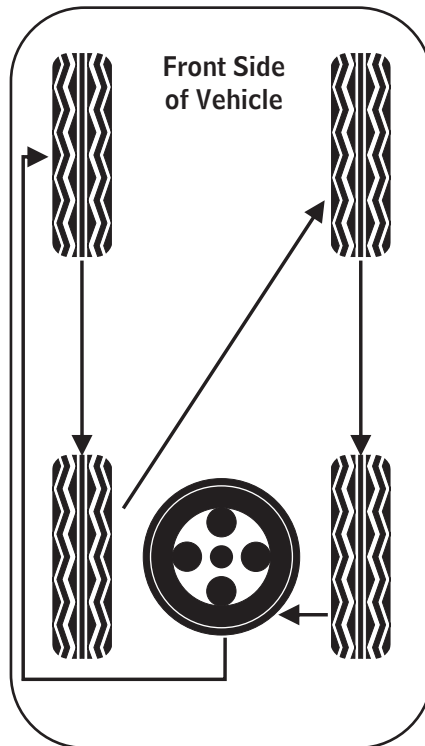
CAUTION

- Driving your vehicle with different types of tyres is dangerous. It could cause poor handling and poor braking resulting in loss of control.
- Using any other tyre size other than what is specified for your Mahindra is dangerous. It could seriously affect ride, handling, ground clearance, tyre clearance and speedometer calibration. This could result in a serious accident. Use only tyres that are the correct size specified for your vehicle.





Tyre Inspection & Rotation



Warm tyres normally exceed recommended pressures. Do not release air from a warm tyre to adjust the pressure.



Driving on tyres with over-inflation or under-inflation is dangerous. It will affect the vehicle handling and may result in an accident. Always inflate the tyres to the correct pressure.

Tyre Inspection

Inspect your vehicle's tyres periodically by performing the following checks :

- Measure the air pressure with a tyre gauge only when the tyres are cold. Adjust the pressure if necessary
- Check for abnormal wear, cracks and damage. If any tyre shows abnormal wear, have it inspected by your Mahindra Authorised Dealer and replace it if necessary.
- Check for loose wheel nuts
- Check for stones, nails and other objects that may be stuck in the tread.

Plug method (mushroom type) is preferred over filler method, for repairing the punctured tubeless tyres. And avoid the patch method, for tyre repairing. Proper tools should be used for mounting & de-mounting the tubeless tyres from the wheel rim, to avoid tyre bead / rim damage.



3.11.2



Tyre Inspection & Rotation



CAUTION

- Air pressures should be checked when the tyres are cold. Otherwise, you may get inaccurate results. Never under-inflate or over-inflate tyres. Under-inflation may cause the rim to slip on the tyre bead, resulting in an accident or damage to the tyre or rim. Over-inflation may cause the tyre to burst.
- Do not mix different ply-type-ratings and/or different brands, construction or tread patterns of tyres on your Mahindra vehicle and do not use tyres other than the manufactures recommended size. Do not use the alloy wheels / rims other than the recommended. Doing so may cause dangerous handling characteristics resulting in loss of control.



Driving with worn tyres is dangerous.

Tyre Rotation & Wheel Alignment

To avoid uneven wear of the tyres and to prolong their life, rotate the tyres as shown alongside. Tyres should be rotated every 10,000 km, as recommended in the periodic maintenance schedule. After rotation, adjust front and rear tyre pressures to recommended levels.



- For best results rotate tyres every 5,000 km
- Wheel balancing should be done every 20,000 km or whenever your vehicle has a flat tyre.

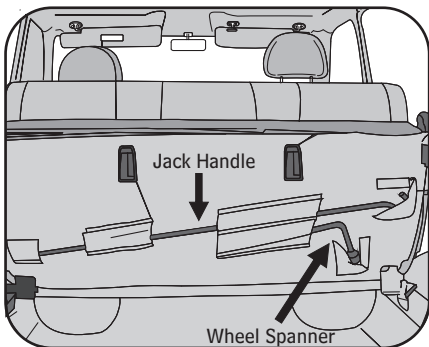
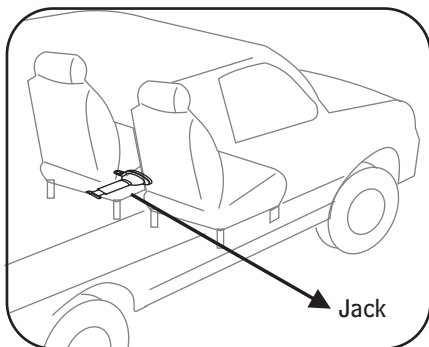
However, the most appropriate time to do tyre rotation may vary according to your driving habits and road surfaces conditions.

3.11.3





Flat Tyres



If the vehicle has a flat tyre

- Slow down and move cautiously off the road. Park in a place away from the traffic
- Avoid stopping in the centre of a road
- Turn off the engine
- Turn on the hazard lights
- Activate the parking brake and set the transmission to reverse
- Place hazard warning triangle, supplied in the toolkit, 10 meters behind your vehicle facing on-coming traffic.

NOTE

If the following occurs while driving, it could indicate a flat tyre.

- Steering becomes difficult.
- The vehicle begins to vibrate excessively / abnormally.
- The vehicle pulls in one direction.

CAUTION

Do not drive with a deflated tyre. Doing so can damage the wheel and tyre.

Changing Flat Tyres

To change a flat tyre you will require the following:

- Jack
- Jack Handle
- Tool Kit
- Spare Tyre

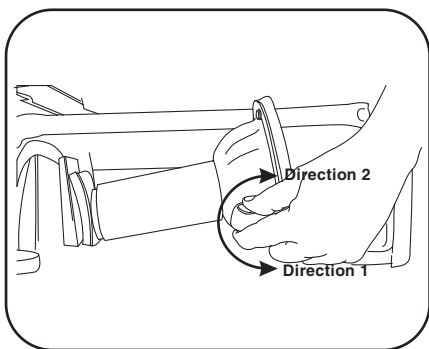
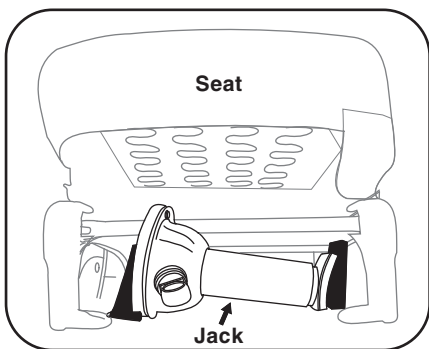
Getting acquainted with the locations of each of the tools mentioned above and learning to use them will help you in emergencies.



3.12.1



Flat Tyres



Removing & Storing the Jack

- To remove the jack from the brackets, turn the joint in direction 1 (as shown in the diagram).
- To store the jack, place it between the brackets and turn the joint in direction 2 (as shown in the diagram).

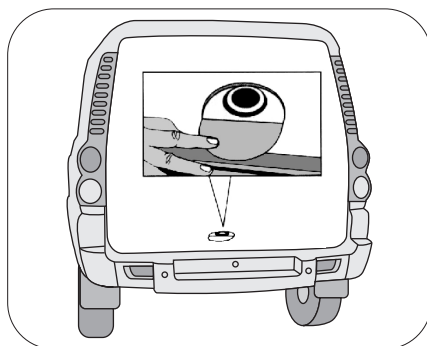
CAUTION

Secure the jack properly in its location to prevent it from flying forward during collision or sudden braking.



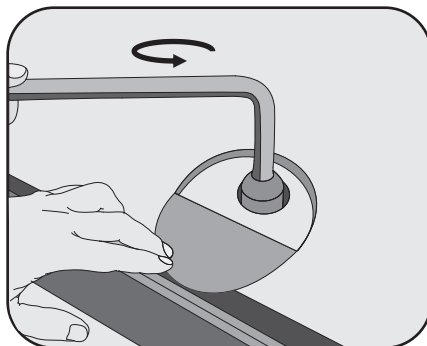


Flat Tyres



Removing the Spare Tyre

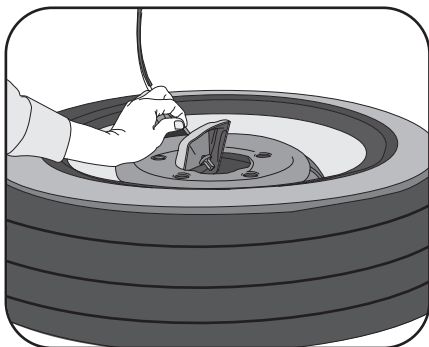
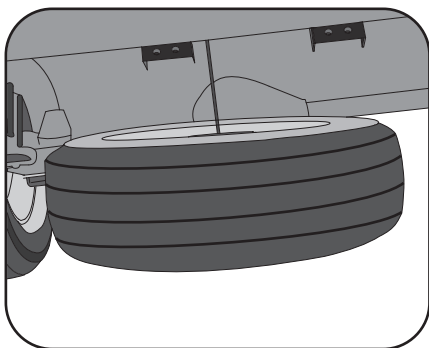
- Open the tail door
- Lift the carpet covering as shown
- Remove the rubber plug
- Insert the end of the wheel spanner into the lowering screw
- Turn the wheel spanner in the clockwise direction (the tyre lowers with each turn)



3.12.3



Flat Tyres



When fitting back the spare tyre,

- Put it in place with the outer side of the wheel facing up.
- Place the retaining plate in the centre of the spare tyre
- Then secure the spare wheel properly by tightening the tyre winch screw extension (RH side of the cargo rear).
- Check the spare wheel from the side of the vehicle to ensure the spare wheel is secured properly.

NOTE

If the tyre is not stored securely, spare wheel winch will not lock properly. Even though it may lock temporarily, the spare tyre may fall out while the vehicle is moving.

CAUTION

To prevent the vehicle from rolling when it is jacked up, block the wheel which is diagonally opposite the flat tyre.

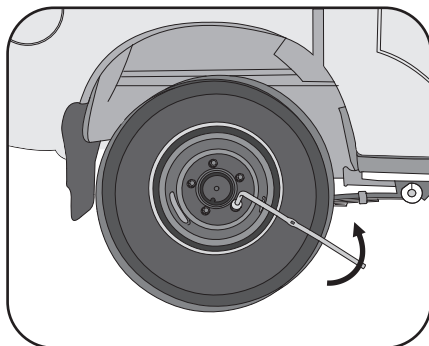
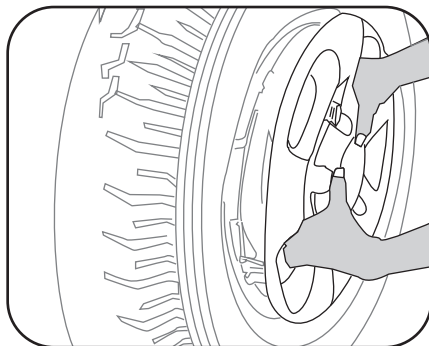


Do not get under a vehicle that is only supported by a jack. Use vehicle support stands; Also ensure the un-lifted wheels are chocked.





Flat Tyres



Removing the Wheel Cover

Pry off the wheel cover, using a screw driver and then pull it out with hands. Wrap the tip of the screw driver with cloth, then insert it near the lugs of the wheel cover and pry the cover away from the wheel.

CAUTION

Do not try to remove the wheel cover by hand. Take due care in handling the wheel cover to avoid unexpected personal injury.

Loosening all the Wheel Nuts

Always loosen the wheel nuts before raising the vehicle.

Turn the wheel nuts anti-clockwise to loosen them. To get maximum leverage, fit the wheel spanner to the nut so that the handle is on your right, as shown. Grab the wheel spanner near the end of the handle and pull up on the handle. Be careful that the spanner does not slip off the nut. Do not remove the nuts yet. Just unscrew them about one-half turn.



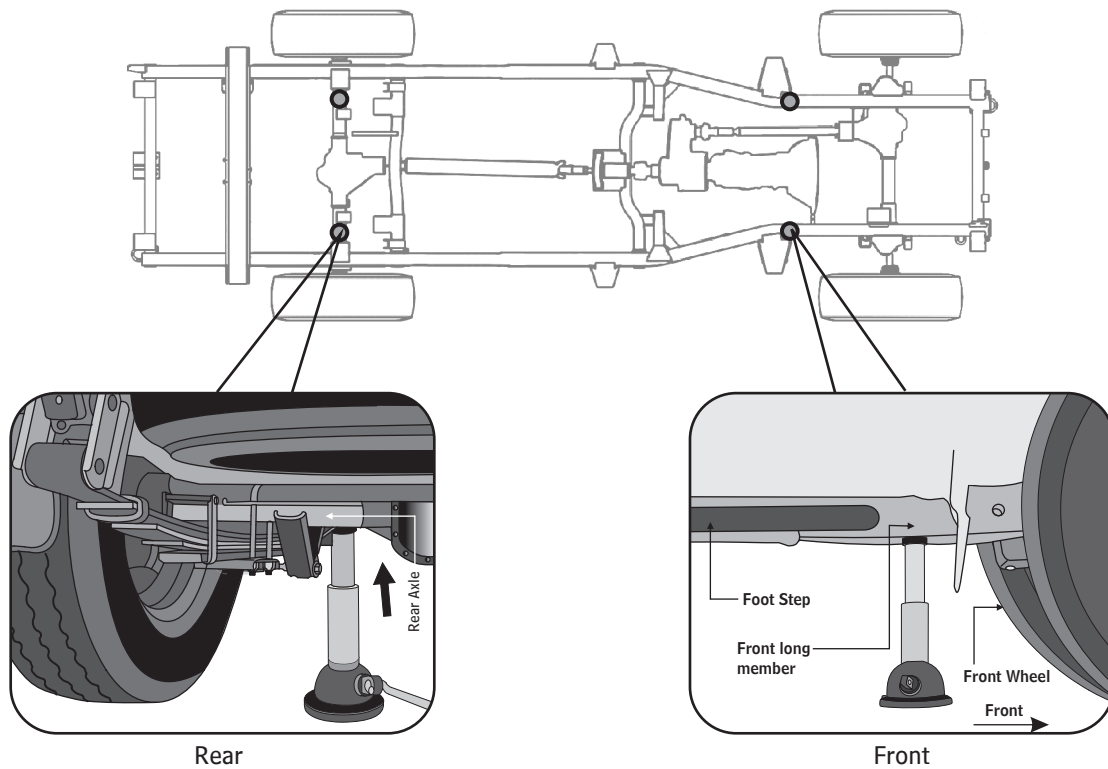
On 4WD models with manual shifting transfer-case, the transfer shift lever should not be kept in 'N' position, to prevent from vehicle rolling.



3.12.5



Flat Tyres



3.12.6





Positioning the jack at the correct location

- Front jack up point - below chassis side long member just behind the front wheels (refer to diagram)
- Rear jack up point under rear axle (refer to diagram)
- Ensure that the jack is on solid and level ground
- Insert the jack handle into the jack and turn clockwise
- Ensure that the handle remains firmly fitted
- When the jack touches the vehicle, check once more to see that it is properly positioned under the vehicle
- Raise it high enough to remove the flat tyre and install the spare one

CAUTION

- Ensure that the vehicle is on firm and level ground
- Chock the wheel diagonally opposite the flat tyre
- The jack supplied is only designed for your model. On no account attempt to lift heavier vehicles or other loads.
- Apply the hand brake before jacking up the car. Never start the engine when the car is jacked up for the risk of accident.
- If it is necessary to carry out work underneath the vehicle, ensure that it is supported on suitable stands.
- Never position the jack under the rear suspension leaf springs at any circumstances.

Position the jack properly under the vehicle. Raising the vehicle with an improperly positioned jack may damage the vehicle or cause personal injury.

- Do not put any object on or under the jack
- Raise the vehicle only high enough to remove the flat tyre and install the spare one.

When the vehicle is supported by the jack:



Do not put any part of your body under the vehicle (personal injury may occur in case the jack gives in or slips off)

Do not start or run the engine.



Attempting to jack the vehicle in position other than recommended in this manual is dangerous. The vehicle could slip off the jack and seriously injure. Use the location as recommended in this manual.

CAUTION (4WD only)

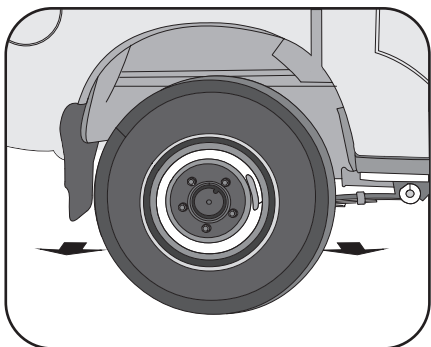
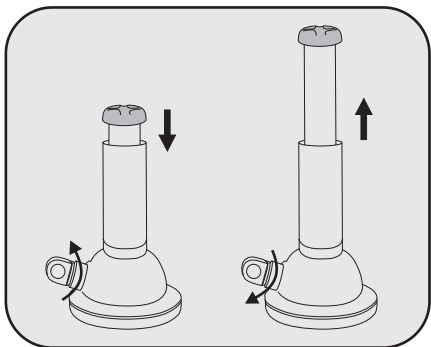
- Do not position the jack under the torsion bar when jacking the front wheel
- On 4WD models with manual shifting transfer-case, the transfer shift lever should not be kept in 'N' position, to prevent from vehicle rolling.



3.12.7



Flat Tyres



Removing the Wheel Nuts and Changing the Tyres

- When the wheel is off the ground, remove the wheel nuts completely
- Lift the flat tyre off the wheel studs and set it aside
- Clean the bolts with a wire brush to remove corrosion (lack of good metal to metal contact on the mounting surfaces may loosen the nuts and cause the wheel to come off when driving)
- Position the spare so that the holes in the wheel align with the wheel studs
- Lift the tyre onto the wheel studs until it is secured properly (you may need to wiggle the tyre a little)

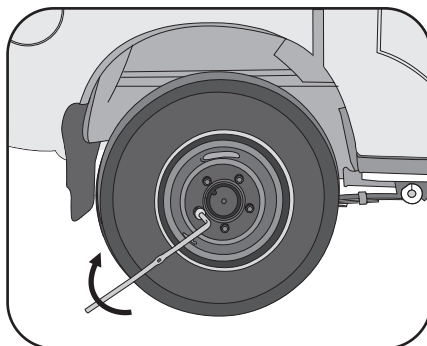
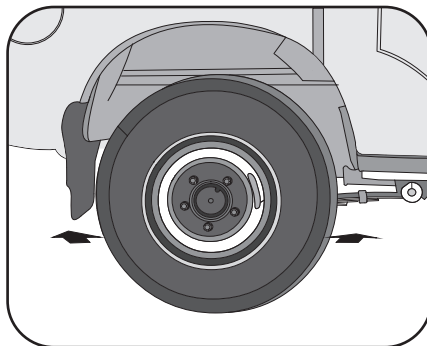
CAUTION

Check to see if the wheel nuts are tight after the first 1000 km.





Flat Tyres



Reinstalling the Wheel Nuts

Reinstall all the wheel nuts and tighten them as much as possible using your fingers. Press the tyre to see if it can be pushed in further. Tighten the nuts a little more using your finger, if possible

Tightening the nuts

Lower the vehicle by turning the jack handle anti-clockwise. Tighten the nuts one by one, a little each time, until all the nuts are fully tightened. Use only the wheel nut wrench and turn it clockwise to tighten the nuts. Do not use other tools or any additional leverage other than your hands, such as hammer, pipe or your foot.

Never apply oil or grease on the bolts or nuts. Doing so may result in over-tightening



WARNING

Improperly or loosely tightened wheel nuts are dangerous. The wheel could wobble or come off. This could result in loss of vehicle control and cause a serious accident. Always make sure all the wheel nuts are properly / securely tightened to the specified torque.



WARNING

When lowering the vehicle, do not put any part of your body under the vehicle

CAUTION

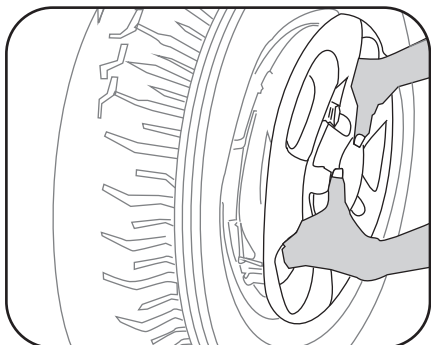
Never use oil or grease on the bolts or nuts. The nuts may loosen and the wheels may come off, possibly resulting in an accident.



3.12.9



Flat Tyres



Reinstalling the Wheel Cover

Position the wheel cover so that it aligns with the valve stem. Tap the outer edge of the wheel cover with the heel of the hand to snap it into place.

CAUTION

Be careful in handling the wheel cover to avoid personal injury.

Checking the Air Pressure of the Replaced Tyre

Check the air pressure of the replaced tyre. If it is lower than the specified level, go to the nearest service station and inflate the tyre.

CAUTION

Driving on tyres over or under inflated is dangerous. It will affect the vehicles handling and could result in a serious accident. Always inflate the tyres to the correct pressure.

Restoring the Tools, Jack and Flat Tyre

After changing the wheels, tighten the wheel nuts to the torque to specifications, as soon as possible. Replace the tools and jack in their respective locations properly, to avoid rattling. Get the flat tyre repaired by a technician and replace it.

NOTE

Follow the same procedure for changing or rotating the tyres.

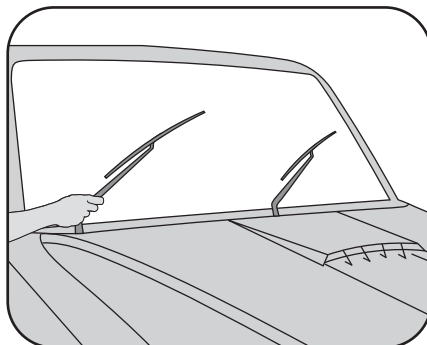
CAUTION

Store the spare tyre with its outer side facing upwards. Ensure that the tyre is secure to prevent it from moving in a collision or sudden braking.





Wipers



Wipers

- Do not operate the wipers on a dry screen.
- In freezing or very hot conditions, ensure that the blades are not frozen or stuck to the glass.
- In winter, remove any snow or ice from around the arms and blades, including the wiped area of the windscreen.

Engine Compartment Washing

Ignition must be switched off before washing. It is recommended to cover other electrical / electronic items (such as ECU, alternator, fuses, ignition coil, wiring harness connectors etc) before washing the engine compartment.

CAUTION

Even though all the electrical and electronic sensors / actuators, etc. are water resistant / sealed, care must be taken, and avoid directing jets of water onto these items during car washing.

High pressure washing of engine compartment is not advised as it can lead to short circuit / malfunction of electrical / electronic system. After washing all the electrical / electronic units and wiring connectors should be dried by blowing moderate compressed air all around.

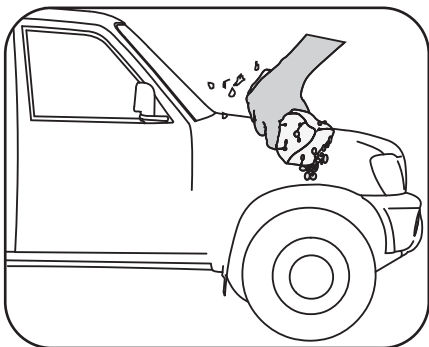
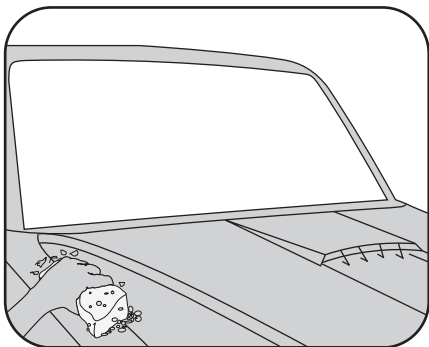
Mahindra recommends you carry out the engine compartment wash at Mahindra authorised workshops.



3.13.1



Appearance Care



Care of Exterior

Washing

- Letting dirt collect on the vehicle can cause scratches in the paint. Leaving bird droppings unwashed can cause permanent damage to the paint finish. However, you can preserve the vehicle's exterior by washing it regularly.
- Wash the vehicle in shade and not in direct sunlight or in freezing temperatures. If the vehicle is in the sun, move the vehicle into shade and let the exterior cool off before you start washing.

CAUTION

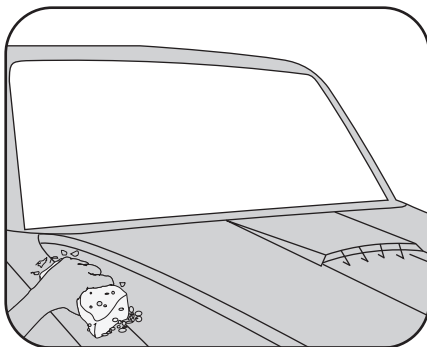
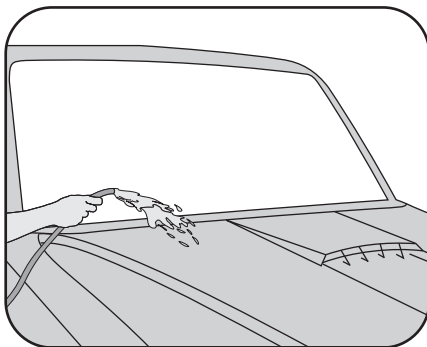
Avoid using chemical solvents and strong cleaners that can damage the vehicle's paint and metal finish.

Washing Tips

- Rinse the vehicle thoroughly to remove loose dirt.
- Use a detergent solution made especially for vehicle washing, and use cool water.
- Use a soft bristle brush, sponge or soft cloth with the detergent solution to wash the vehicle.
- Rinse frequently.



Appearance Care



Check the body for road tar, tree sap, etc. Remove these stains with tar remover or turpentine. Rinse it off immediately so that it does not harm the finish. Remember to wax these areas, even if the rest of the vehicle does not need re-waxing.

When the exterior is washed and rinsed, dry it with a soft towel or chamois. Letting it dry in the air will cause dulling and leave water marks on the surface.

As you dry the vehicle, inspect for chips and scratches that could start corrosion. Repair them with the recommended touch-up paint.



Observe local regulations.

Aluminum wheels: Use only a mild soap or neutral detergent
Plastic Bumpers: wash carefully. Do not scrub with abrasive cleaners.



Mahindra is not responsible for scratches caused by automatic car washes or improper washing. Scratches are more noticeable on vehicles with darker paint finishes. Avoid washing your vehicle in an automatic car washer that uses high-speed / hard brushes.



3.14.2



Appearance Care



Driving with wet brakes is dangerous. It increases stopping distance and or vehicle pulling to one side. This could result in a serious accident. Dry the brakes by driving slowly by applying the brakes lightly until normal brake performance is experienced.

Waxing (only for vehicles without metallic paint)

Always wash and dry the complete vehicle before waxing it. The vehicle should be waxed whenever you see water on the surface in large patches. Apply the wax according to directions on the container. In general, there are two types of products -

- Waxes: A wax coats the finish and protects it from damage due to sunlight, air pollution etc.
- Polishes: Polishes restore shine to paint that is oxidized or has lost some of its luster. They typically contain mild solvents and abrasives that remove the top layer of the paint finish. Use a polish if your vehicle does not have the original shine after using wax.

Removing tar, dead insects etc. from your vehicle using removers, wears off the wax. Rewax these areas even if you are not re-waxing the rest of the vehicle.

Care for Interiors

Seat Belts:

Check to see if dirt has accumulated in the loops (this

3.14.3



usually results in the slowing down of the retraction mechanism).

Check for cuts and frayed spots in the belt material

Check to see if the locking and unlocking mechanism is smooth in its operation.

CAUTION

If you encounter any faults with your seat belts, get them repaired at a Mahindra Authorised Dealer. Any damaged parts must be replaced immediately. It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

Washing the seat belts: Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged. Use a soft cloth with the solution to clean the seat belts. You may also use isopropyl alcohol to wipe the loops of the seat belt anchors. Use a soft-bristle brush with the same solution for places that are difficult to reach.

CAUTION

Avoid using solvents, such as bleach, that tend to damage the belt material.



Appearance Care



Windows : Windows need to be cleaned regularly, both from the inside and the outside. Make a solution of vinegar and water in the ratio 1:10 (you can use a commercially available glass cleaner instead). Use a soft cloth or tissue paper with this solution to clean the windows.

Corrosion Protection

Typically, corrosion in vehicles is caused by two principal factors:

- Collection of damp-dirt and road grime/salt on the underside of the vehicle.
- Loss of paint and protective coatings from the exterior and underside of the vehicle.
- Corrosion can be prevented through simple periodic maintenance.
- Repair chips and scratches in the paint as soon as you find them.
- Inspect and clean drain holes at the bottom of doors and body.

- Check the floor covering for dampness. Carpeting and floor mats may remain damp for a long time especially in winter. Dry the areas immediately.
- Use a high-pressure spray to clean the underside of the vehicle.
- Get the corrosion-preventive coatings on the underside of the vehicle checked periodically.



Do not scrape or scratch the inside of the rear glass. You may damage the rear window demister grid.

Leather upholstery caring : (if applicable)

Leather should be treated from time to time in accordance with the instructions below, depending on the amount of use. Use the slightly moisten cotton / woolen cloth with water for normal cleaning of leather. Severe dirt can be cleaned with mild soap solution. The leather should never get moistened through at any point of time. No water should get through the stitches. Never try to use solvents, wax, shoe-cream, stain remover or similar products to treat the leather. It is recommended to contact the your GOA dealer for treating leather.



3.14.4



Maintaining the AC System



Maintaining the Air-Conditioning System

Your vehicle's air-conditioning is a sealed system. Any major maintenance, such as recharging should be done by a qualified technician. However, you can do a few things by yourself to make sure the air-conditioning works efficiently.

Run the air-conditioning system at least once a week during the cold weather months.

Run it for at least ten minutes with the engine running at normal operating temperature. This circulates the lubricating oil contained in the refrigerant.



The condenser and radiator fins of the air conditioning system bend easily. Use only a low-pressure spray or soft-bristle brush to clean them.

CAUTION

Whenever the air-conditioning system is serviced, make sure the service facility uses a refrigerant recycling system. This system captures the refrigerant for reuse. Releasing the refrigerant into the atmosphere is harmful to the environment.

Air Fresheners

It is better to use a solid type air freshener/deodorizer instead of a liquid type. Some liquid air fresheners contain chemicals that may cause parts of the interior trim and fabric to deteriorate or discolour.

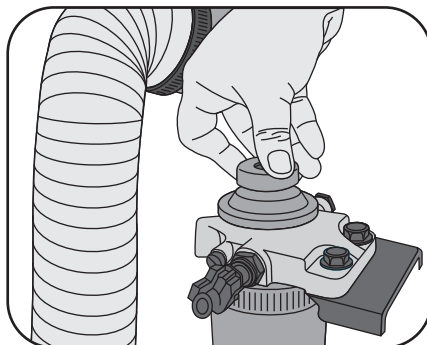
CAUTION

If you use a liquid air freshener, make sure you fasten it securely so that it does not spill as you drive.





Trouble Shooting



If the Engine does not start

Determining why your vehicle won't start falls into two areas, depending on what you hear when you turn the key to IGN:

Case 1: You hear nothing, or almost nothing. The engine's starter motor does not operate at all, or operates very slowly.

Case 2: You can hear the starter motor operating normally, or the starter motor sounds like it is spinning faster than normal, but the engine does not start up and run.

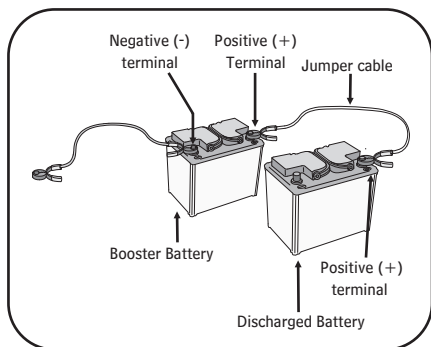
In either case, do the following:

- Turn the ignition switch to IGN. Turn on the headlights and check their brightness. If the headlights are very dim or don't light at all, the battery is discharged. You will need to 'Jump Start' the vehicle
- If the headlights don't dim, there may be something wrong with the electrical circuit. Meet a qualified technician to rectify it
- Turn the ignition switch to IGN position and check the fuel gauge for fuel
- If you are starting the engine after adding fuel to an empty fuel tank, you may have to bleed the fuel system by operating the priming pump several times until you feel more resistance. Your engine may take longer to start.



3.16.1

Trouble Shooting



CAUTION

To disconnect battery terminals wait for at least 2 minutes to allow discharge of high voltage or it could lead to personal injury.

Always disconnect -ve terminal first & connect -ve terminal last.

3.16.2



Jump Starting

If your vehicle's battery has run down, you may be able to start the engine by using a booster battery. Although this seems a simple procedure, you should take precautions:

Open the bonnet and check the physical condition of the battery. If the weather is very cold, check the condition of the electrolyte and level.

Connect one jumper cable to the positive (+) terminal on the booster battery. Connect the other end of the cable to the positive terminal of your vehicle's battery.

Connect the second jumper cable to the negative (-) terminal on the booster battery. Connect the other end to the negative terminal of your vehicle's battery. Do not connect this jumper cable to any other part of the engine.

CAUTION

Connect the negative lead so it points away from the battery. Ensure the jumper cable leads are kept well away from moving parts. It can be dangerous if the leads get caught up when the engine starts and may result in serious injury.

If the booster battery is in another vehicle, get an assistant to start the vehicle and run it at a fast idle.

Start your vehicle. If the starter motor still operates slowly, check the jumper cable connections to make sure they have good metal-to-metal contact.



Trouble Shooting



- Once your vehicle is running. First disconnect the negative cable from your vehicle, and then from the booster battery. Next, disconnect the positive cable from your vehicle and then from the booster battery.



A battery may explode if you do not follow the correct jump starting procedure, seriously injuring anyone nearby. Keep all sparks, open flames, and smoking materials away from the battery.



Attempting to jump-start when the electrolyte is frozen or slushy can cause the battery to rupture / explode causing serious injury.

- Turn off all electrical accessories such as lights, stereo system, A/C etc. Put the transmission in neutral and set the parking brake.
- Batteries contain sulphuric acid, which is highly corrosive. Wear protective safety glasses when jump starting, and avoid spilling acid on to yourself, your clothing or your vehicle.
- If acid gets into your eyes or spills on your body accidentally, wash the area with water until the burning sensation subsides. Get immediate medical attention. Continue application of water en route to the medical institute.

- The gas normally produced by a battery will explode if a flame or spark is close enough. So use only standardized jumper cables and do not light a match or smoke while jump starting.



The battery used for boosting should be a 12 V type. Jump start only with the correct type of booster battery.



If the battery is low, the glow plug may not operate (in extreme cold climatic conditions) and the engine may not start.



Towing a vehicle to try and start it could be dangerous. The vehicle being towed could surge forward when its engine starts, causing the tow vehicles to collide, resulting in possible injury to the occupants



For Best Battery Service

- Keep the battery securely mounted.
- Keep the battery top clean and dry.
- Keep the terminals and connections clean, tight, and coated with petroleum jelly or terminal grease.
- Rinse any spilled electrolyte from the battery immediately with a solution of water and baking soda.
- If the vehicle is not going to be used for an extended time, disconnect the battery cables.



3.16.3



Trouble Shooting



If the Engine Overheats

If the engine overheats, the temperature gauge pointer (needle) turns to the upper limit of temperature gauge and the engine overheating warning light comes ON.

The needle of the temperature gauge should stay in the gauges midrange under most conditions. It is normal for it to go higher if you are driving up a long steep hill. In all other cases it is necessary that you determine the reason for the increase in temperature.

The engine may overheat for several reasons, such as lack of coolant, or mechanical problems.

CAUTION

- Driving with the needle of the temperature gauge in the extreme right and or with the engine and the overheating warning light ON, can cause serious damage to the engine.
- Do not drive for prolonged periods at very low speeds or very high speeds or in low gear.

If the engine over heats, follow this procedure:

- Safely, pull to the side of road, apply the parking brake, put the transmission in neutral.
- Do not stop the engine.
- Switch off the air-conditioner if it is being used. Open all the windows, move the temperature control knob to the maximum hot position and put the fan at max speed.
- If there is coolant or steam boiling out of the radiator / reservoir, stop the engine. Wait until steam subsides before lifting the bonnet. If there is no coolant boiling over or steam, leave the engine running.
- Visually check to see if the engine fan drive belt is broken or slipping. Check for coolant leaks from the radiator, hoses and underneath the vehicle. But do not get confused with air-conditioning water dripping. This is normal if it is being used. If the fan belt is broken or coolant is leaking stop the engine, contact the nearest Mahindra Authorised dealer for assistance.





Trouble Shooting



- If the fan belt is found to be okay and there is no coolant leak, you may have to cool down the engine by running it at approximately 1500 rpm for a few minutes.
- If the coolant reservoir is dry or the level is low, add coolant to the reservoir while the engine is running. Fill it up to the maximum level mark.
- After the engine coolant temperature has come down to normal, again check the coolant level in the reservoir, if required, top up with coolant to the maximum mark. Heavy coolant loss indicates a leak in the system. As soon as it is possible have the vehicle checked at a Mahindra Authorised dealer.

If the temperature gauge needle stays at the extreme right, turn off the engine. Wait until you see no more signs of steam or spray, and then open the bonnet. Let the engine cool down until the needle reaches the middle of the temperature gauge, or lower, before checking the radiator. Using gloves or a heavy cloth, turn the radiator cap anti-clockwise, without pushing down, to the first stop. This releases any remaining pressure in the cooling system. After the pressure is released, push down on the cap and turn it until it comes off.

CAUTION

Do not attempt to remove the radiator cap when the engine and radiator are hot. Serious injury could result from scalding hot fluid & steam blowing out under pressure.



3.16.5



Trouble Shooting



Start the engine. Add coolant to the radiator up to the base of the filler neck. If you do not have the proper coolant mixture available, you may add plain water. Remember to have the cooling system drained and refilled with the coolant as soon as you can. Put the radiator cap back on tightly. Run the engine and watch the temperature gauge. If the needle goes back to the red mark, the engine needs servicing.

If the temperature stays normal, check the coolant level in the radiator and reserve tank. If it has gone down, add coolant to the MAX mark. Put the cap back on tightly.

CAUTION

Wherever the engine overheats, safely pull to the side of the road. Put the transmission in neutral and set the parking brake. Turn off the air-conditioning system and all other accessories. Turn on the hazard warning indicators.

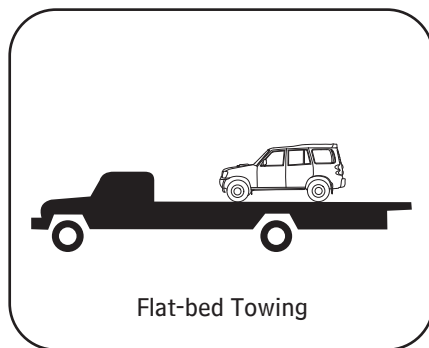
Low Oil Pressure

- If the low oil pressure indicator light stays ON when the engine is running, it shows that the engine has lost oil pressure.
- Running the engine with low oil pressure can cause serious mechanical damage almost immediately.
- Safely pull off the road and switch off the engine. Turn on the hazard warning indicators.
- Let the vehicle 'sit' for a minute. Open the bonnet and check the oil level. Although oil level and oil pressure are not directly connected, an engine that is very low on oil may lose pressure during cornering and other manoeuvre. If necessary, add oil to bring the level back to the FULL mark on the dipstick.
- Start the engine and have a look at the oil pressure indicator. If the light does not go out within 10 seconds, it means that there is a mechanical problem that needs to be addressed before you can continue driving.





Towing



Towing A Trailer

Your new vehicle was designed to be used primarily for carrying passenger and luggage.

Remember that towing a trailer will place additional loads on your vehicle's engine, drive-train, steering, braking and other systems. Also towing a trailer may greatly affect your vehicle's handling & suspension characteristics. Your vehicle cannot be driven as normal with a trailer attached.

Towing your vehicle

If your vehicle needs to be towed, call a professional towing service.





Towing



Towing Equipment

Towing equipments are of three types.

- Flat-bed equipment: Your vehicle is loaded on the back of a truck. This is the safest and best way of towing.
- Wheel-lift equipment: The tow truck uses two pivoting arms that go under the tyres (front or rear) and lift them off the ground. The other two tyres remain on the ground.

Sling-type equipment: The tow truck uses metal cables with hooks on both ends. These hooks go around parts of the frame or suspension and lift the end of the vehicle off the ground. This is not a good method of towing as it may damage the vehicle's suspension and body. Avoid tow with sling type equipment

If your vehicle cannot be transported by flat-bed equipment, it should be towed by wheel-lift equipment with the front wheels off the ground.

NOTE

Improper towing procedure will damage the transmission. Follow the above instructions precisely. When towing with the front wheels off the ground, it is best to tow no more than 80 kms. Also keep the towing speed below 55 kmph.





Towing your vehicle during Emergency

If a towing service is unavailable in an emergency, your vehicle may be temporarily towed by a cable or chain secured to the emergency towing eyelet under the front bumper of the vehicle.

Use only the eyelet provided, for towing in an emergency. Otherwise the vehicle may be damaged.

CAUTION

- A driver must be in the vehicle being towed to steer and operate the brakes. Towing in this manner must be done only on hard-surfaced roads for short distances and at low speeds. Also, the wheels, axles, drive train, steering and brakes must all be in good condition.
- Avoid sudden starts or erratic driving maneuvers, which would place excessive stress on the towing eyelet and towing cable or chain, and result in breaking of the eyelet or the chain.
- If the engine is not running, the power assist for the steering & brakes will not work and it will be much harder than usual.

NOTE Use only a cable or chain specifically intended for use in towing vehicles. Securely fasten the cable or chain to the towing eyelets provided.



Do not tow with sling type truck, either from the front or rear. Doing so may cause body damage.

For your vehicle safety

When leaving your vehicle unoccupied

- Always remove the ignition key even when you park vehicle in your own garage.
- Close all the windows completely & lock all the doors.
- Always park your vehicle in where it can be seen. At night, park in a well lighted area.
- If you have an alarm, use it even for short period.
- Do not leave any valuables in your vehicle. If you must leave something in your vehicle secure it properly by locking the doors / by hiding it.
- Do not leave the vehicle documents in your vehicle. In the unfortunate event of your vehicle being stolen the documents will only help a thief to sell the vehicle.
- Do not leave the spare key or a note of your vehicle key number in the vehicle. Keep the spare key in a safe place in your home.



OTHER INFORMATION





SPECS► Technical Specifications

► Safety

Technical Specifications

ENGINE	M-Hawk 2.2. L Diesel
Type	4 Stroke, Turbo Charged with Intercooler, Direct Injection Engine
Bore/Stroke, mm	85 x 96
No. of Cylinders	4
No. of Valves	16
Displacement, CC	2179
Compression Ratio	18.5:1
Max. Net Engine Output, RPM	88 kW (120 bhp) @ 4000 RPM
Max. Net Torque, RPM	290 Nm @ 1600-2800 RPM
AIR CLEANER	Foam type
OIL FILTER	Full flow, Paper Type
FUEL FILTER	Single with Water in Fuel Indicator
CLUTCH	Hydraulically operated, Single plate, dry type, 240 dia
TRANSMISSION	5 Speed, Manual
Type	Synchromesh in all forward gears
No. of gears	5 Forward, 1 Reverse
GEAR RATIOS	NGT 530R
I	3.78 : 1
II	2.09 : 1
III	1.38 : 1
IV	1.00 : 1
V	0.79 : 1
Reverse	3.52 : 1
TRANSFER CASE	
(for 4X4 version only)	
Type	Electric shift & mounted on transmission
Ratio : High	1 : 1
Low	2.48 : 1

4.2.1





Technical Specifications



AXLES	
Front	2WD : Non-drive, Stub Axle
	4WD : Full floating, Drive axle, 4.55 : 1
Rear	Single reduction semi floating hypoid type 2WD 4.55 : 1, 4WD 4.55 : 1 MLD Axle
TYRES & WHEELS	
Rim	6.5J x 16
Tyres	P235 / 70 R16
No. of Wheels	5 (Inclusive of Spare Wheel)
STEERING	
Type	Power Assisted, Rack & Pinion
Steering Column	Tilt Mechanism – Optional
Steering Wheel Turn Lock-to-Lock	3.5 (Approx)
Turning Circle Diameter, Meters	11.2
FRAME	Tabular ('C' in 'C') Ladder Type
SUSPENSION	
Front	Independent front with coil spring & double wishbone for 2WD, torsion bar for 4WD
Rear	Multi Link (5) with coil spring
Anti Roll Bar	Provided in Front & Rear
Shock Absorbers	Hydraulic, Double Acting, Telescopic
BRAKES	
Service Brakes	Tandem Master Cylinder, Vacuum Assisted Servo, with LSPV & BV
Front	Ventilated Disc and Caliper type
Rear mm x mm	Drum type
Parking Brake	Internal expanding with auto adjuster on rear wheels, hand lever and cable type
ABS (with DRP)	Optional
Fuel Tank Capacity, in Liters	60 Liters
ELECTRICAL SYSTEM	
System Voltage, V	12V
Battery, V, Amp-Hr	12V, 80 Ah



4.2.2

Technical Specifications

Alternator (Max. Output), Amp	110A
Wiper Motor	2 Speed with adjustable intermittent, link type
CLIMATE CONTROL	
Options	HVAC
SEATS	
Front Seat	Bucket Seats with front to rear & backrest adjustments; Adjustable head restraint & with seat belt.
2nd Row Seat	60 : 40 or single seats with front to rear & backrest adjustments, Adjustable head restraint, with seat belt & lap belt for middle occupant.
3rd Row Seat	Removable front facing with 2 position adjuster with seat belt & lap belt for middle occupant or Foldable side facing seats
DIMENSION	
Wheel Base, mm	2680
Overall Length, mm	4430
Overall Width, mm	1775
Overall Height, mm Unladen	1916 / 1975 (with Ski rack)
Front Track, mm	1450
Rear Track, mm	1450
Minimum Ground Clearance, mm	180 (Below Axle Differential)
WEIGHTS	
Kerb Weight, Kg	2WD : 1910, 4WD : 2010
Max. FAW, Kg	2WD : 1250, 4WD : 1250
Max. RAW, kg	2WD : 1725, 4WD : 1725
Maximum GVW, Kg	2WD : 2510, 4WD : 2610
Maximum Gradeability in 1st gear,(Deg.)	2WD : 15°, 4WD : 30°



Technical Specifications



Drinking and Driving Don't Go Together

Driving, anytime, anywhere, under the influence of alcohol or drugs, is dangerous to you, to your family, the passengers, and to everyone else on the road. Alcohol or drugs reduces your alertness and can lead to accidents.

Driving Long Distances

When you are driving over long distances, follow these tips so that you have a safe journey:

- Avoid driving more than 150 kms at a time. Switch drivers even if you are not tired.
- Lack of sleep or fatigue may impact on your ability to drive safely
- Exercise your eyes by shifting the focus of your eyes to different parts of the road
- Use stimulating beverages such as coffee or tea
- Relax and stay calm

Anti-theft Precautions

- Ensure that the windows are closed
- Avoid leaving packages, valuables etc., inside an unattended vehicle
- Lock the doors

Use of Seat Belts

- In the interest of safety to the driver and passengers in all motor vehicles. The wearing of seat belts is mandatory for all occupants.
- Using a Mobile Phone whilst Driving is illegal.



4.3.1

SECURITY SYSTEM





.....► Precautions



.....► The System



.....► Trouble Shooting



Precautions



IMPORTANT TIPS TO BE KEPT IN MIND

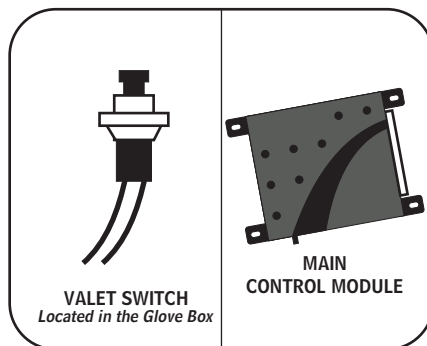
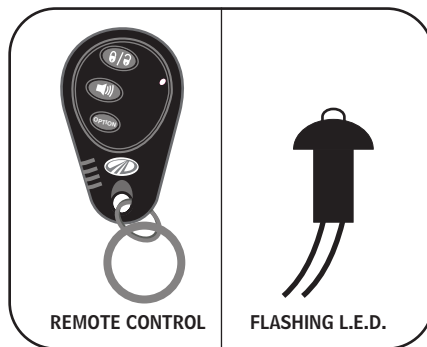
1. In case of loss of remote, please contact the nearest authorised service centre or your nearest Mahindra dealer.
2. In case of weak batteries or of a weak transmission signal, please contact the nearest authorised service centre or nearest Mahindra dealer for replacement of battery.
3. The personalised Pin Code should be programmed first by an authorised dealer or service centre and then can be personalised by the user to their own settings.
4. The dealer programmable features should be programmed only by the Mahindra dealer or any authorised person to avoid any malfunctioning of the system.
5. If due to wrong programming or there is any malfunction, the user is advised to programme to valet mode and seek the help of the nearest Mahindra dealer or authorised service centre.
6. If the system is programmed to the passive lock mode, the doors will lock automatically when ignition is turned off and last door is closed. It is always advisable to remove the ignition key each time you exit the vehicle.

5.2.1





The System



GENERAL FEATURES

1. REMOTE LOCKING and ARMING and REMOTE UNLOCKING and DISARMING

The convenience of Keyless Entry together with arming and disarming enables you to arm & disarm the vehicle by pressing the remote button. This feature is confirmed both by the siren chirps and blinking of parking lights. This feature can be operated in the following modes.

1. Remote Lock (with sound)
2. Remote Unlock (with sound)
3. Remote Lock (silent)
4. Remote Unlock (silent)

2. DOORS/TRUNK/BONNET PROTECTION

This feature provides two-channel security for all four doors, trunk & bonnet & also ensures indicator supervision.

3. DOORS/TRUNK/BONNET OPEN SIGNAL

When the vehicle is armed by remote and if any of the doors / trunk / bonnet is left open, this feature warns you by giving five chirps instead of one.





4. PERSONAL PROTECTION ALARM (PANIC ALARM)

By pressing the remote panic button , panic alarm will be activated & a siren will sound and indicator light flashes.

Panic alarm is designed to bring attention to the vehicle and surrounding area, warning of an intruder. Pressing the remote again will turn off the panic alarm.

5. MUTE LOCK / UNLOCK

This feature enables you to lock / unlock without the chirp sound, in a silent zone or anywhere desired.

6. TWO STAGE SHOCK / IMPACT SENSOR

This is a very important security feature enabling you further protection from any shock or vehicle break in . If anybody tries to tamper with the vehicle, the alarm triggers, warning your vehicle is being broken into. The triggering of the alarm is in two stages, first acting as a warning to the intruder and then at full blast. The sensitivity of impact sensor can be adjusted as desired by the user.

7. CAR LOCATOR

In a congested/packed parking area, the car can be located by pressing the remote panic button .

8. FLASHING L.E.D.

The flashing L.E.D. always reflects the status of the system as per the following.

SYSTEM CONDITION	LED STATUS
Disarmed condition	LED does not glow
Armed condition	Slow Flashes of LED
Auto Arming condition	Fast Flashes of LED

ADVANCED FEATURES

10. EMERGENCY DISARM (Programmable)

The programmed 4-digit pin code enables you to do an emergency disarming in the event of loss of both the transmitters or any unforeseen circumstances. The 4-digit pin code acts as a secret key.

11. VALET MODE

When the vehicle is to be given for servicing or valet parking and the system is to be used only as a keyless entry thereby turning off all the security features, this feature can be programmed.



12. PASSIVE/ACTIVE MODE

Passive mode / Passive Arming mode means that the system will automatically arm the vehicle after 30 seconds.

This is also referred to as Automatic arming. Active mode / Active Arming mode means that the system will not arm the vehicle until you manually do so by pressing the arming button on your remote. This is referred to as manual arming.

13. PASSIVE LOCK MODE

Passive Lock mode means that all doors will lock automatically after 30 seconds. In this mode the vehicle will lock and arm itself automatically.

14. IGNITION LOCK/UNLOCK MODE

Ignition Lock mode means that all doors will lock automatically 20 seconds after the ignition key is turned ON and will unlock automatically when the ignition key is turned OFF. This feature is also referred to as Auto Lock/Unlock.

15. ANTI-HIJACK / CAR JACK MODE

The car jack mode can be used to discourage a potential car jacker from violating you and your vehicle while you

are driving it. If somebody tries to open the door during ignition ON condition (while driving) the Anti-Hijack mode is triggered.

16. PERSONALISED PINCODE

This feature enables you to programme a 4-digit pincode which will be known only to you and acting as a secret key / code for the system.

17. INTRUSION ALERT

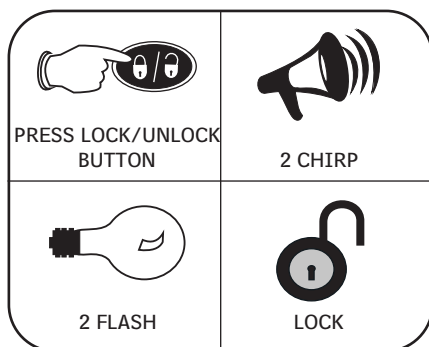
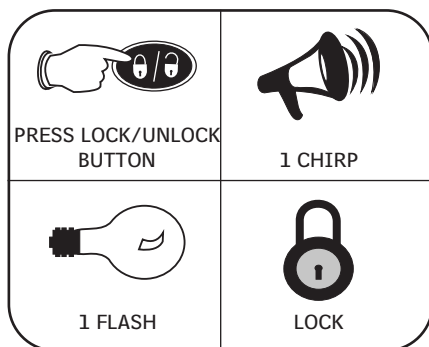
The system gives a report if it has been tampered with in your absence.

Diagnostic report	Visual- LED	Sound
Door/Trunk Intrusion	3 Flashes	Four Chirps
Hood Intrusion	1 Flashes	Four Chirps
Shock Sensor	2 Flashes	Four Chirps
Ignition	5 Flashes	Four Chirps

18. RADIO FREQUENCY LOCK OUT

When Ignition key is in the ON position, the remote ceases to function.

Section 1 : System Operation



1.1 ALARM ON/ARM /LOCKING

1. Press and release the transmitter button LOCK/UNLOCK after you exit the vehicle.
2. One chirp and one flash of the indicator light will verify alarm ON.
3. All doors will lock.
4. Visible theft warning LED light will flash slowly.

NOTE

If you hear five-chirps, the system has detected an open door.

If the system is in Passive Mode (Automatic Arming Mode)

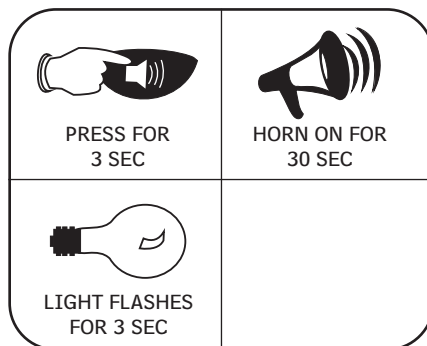
1. The LED will flash rapidly during a 30 second arming delay. At any time during a 30 second arming delay, you can always press and release the transmitter button LOCK/UNLOCK to arm manually.
2. After a 30 second delay, it will arm automatically.
3. One chirp sound and one indicator light flash will verify this operation.
4. Doors will be locked if passive lock mode is selected.
5. Visible theft warning LED light will flash slowly.

1.2 ALARM OFF/DISARM

1. Press and release the transmitter button LOCK/UNLOCK before entering the vehicle.
2. Two chirps and two indicator light flashes will verify security OFF.
3. Doors will unlock.
4. The LED theft warning light will stop flashing.



Section 1 : System Operation



1.3 PERSONAL PROTECTION ALARM (PANIC ALARM)

1. Press and hold the transmitter button panic for approximately three seconds.
2. Personal panic alarm will be activated and siren will sound and indicator lights will flash for 30 seconds. Then shut off automatically.
3. Press and release the transmitter panic button to cancel the panic alarm.

1.4 EMERGENCY DISARM BY PERSONALISED PIN CODE

The programed 4-digit pin code enables you to do an emergency disarming in the event of loss of both the transmitter or any unforeseen circumstances. The personalised 4-digit pin code acts as a secret key, to emergency disarm the vehicle.

1. Turn the ignition ON, OFF and then ON.
2. Enter the FIRST digit (e.g. to enter press valet switch twice)
3. Turn the ignition OFF then ON.
4. Enter the SECOND digit.
5. Turn the ignition OFF and then ON.
6. Enter the THIRD digit.
7. Turn the ignition OFF and then ON.
8. Enter the LAST digit.
9. Turn the ignition OFF and then ON. The vehicle will disarm.



5.3.5

Section 1 : System Operation

1.5 VALET MODE

To turn off all security features and use the system as keyless entry only.

1. Turn the ignition ON and then OFF.
2. Press and release the valet switch.
3. The continuous LED glow indicates the system is in valet mode.
4. To exit valet mode repeat step 1 & 2. LED will stop glowing and all security features will be turned on.

1.6 MUTE LOCK / UNLOCK

Arm/Disarm chirp can be temporarily excluded from your remote transmitter. To use this function

1. Press and release the transmitter panic button.
2. Press and release transmitter button LOCK / UNLOCK for desired function.

Example: To lock the system without the chirp sound, press and release the transmitter panic button first. Then press and release the transmitter button LOCK/UNLOCK.



2.1 PROGRAM CUSTOMER PIN CODE (PERSONALISED PIN CODE)

The personalised digit number can be changed from the factory default one to ensure personalised security.

Pin code Entry.

1. Disarm the system.
2. Open the door.
3. Turn ignition ON then OFF
4. Within 5 seconds press and release the valet switch 5 times. A short chirp followed by long chirps confirm entry into PIN CODE programing mode.
5. Press button LOCK/UNLOCK on remote transmitter, after a single chirp enter the FIRST digit (1-9) by pressing valet switch (e.g. to enter press the valet switch twice).
6. Press the LOCK/UNLOCK button on the remote transmitter, after two chirp enter the SECOND digit (1-9) by pressing valet switch.
7. Press the LOCK/UNLOCK button on the remote

transmitter, after 3-chirps enter the THIRD digit (1-9) by pressing the valet switch.

8. Press LOCK/UNLOCK button on the remote transmitter, after 4-chirps enter the FOUR digit (1-9) by pressing the valet switch.

Section 3: Dealer Programmable Features

PROGRAMMING CHART

FEATURE NO	FEATURE	1 CHIRP	2 CHIRPS
F1	PASSIVE MODE	OFF	ON
F2	PASSIVE LOCK MODE	OFF	ON
F3	IGNITION DOOR LOCK	ON	OFF
F4	IGNITION DOOR UNLOCK	ON	OFF
F5	SIREN CHIRP	ON	OFF
F6	SHOCK SENSOR	ON	OFF
F7	ANTI HIJACK/CAR JACK MODE	ON	OFF

3.1 PASSIVE / ACTIVE MODE

Passive mode/Passive arming mode means that the system will automatically arm the vehicle after 30 seconds of turning off the ignition key and last door closure. This is also referred to as Automatic arming. Active mode / Active arming mode means that the system will not arm the vehicle until you manually do so by pressing the arming button on your remote, this is also referred to as manual arming.

Passive Mode

1. Open the Door of your Vehicle.
2. With your vehicle key in the ignition, turn it ON and then switch it OFF.
3. Press and release the valet switch once.
4. Press and hold the valet switch.
5. One chirp verifies the passive/active mode feature.
6. Press the transmitter LOCK button (while holding the valet switch), a single chirp verifies the active mode.
7. Two-siren chirps verifies the passive mode.
8. Release the valet switch.
9. Turn the ignition ON.

3.2 PASSIVE LOCK MODE

Passive lock mode means that all doors will lock automatically after 30 seconds of turning off the ignition key and last door closure. In this mode the vehicle will lock and arm itself.

Programming Passive Lock Mode :

1. Open the Door of your vehicle.
2. With your vehicle key in the ignition, turn it ON and the then switch it OFF.
3. Press and release the valet switch twice.



4. Press and hold the valet switch.
5. Two-chirps verifies the passive lock mode feature.
6. Press the transmitter Lock/Unlock button (while holding the valet switch), a single chirp verifies the passive lock mode is OFF.
7. Two-siren chirps verifies the passive lock mode is ON.
8. Release the valet switch.
9. Turn the ignition ON.

3.3 IGNITION LOCK MODE

Ignition lock mode means that all doors will lock automatically 20 seconds after the ignition key is turned ON.

Programming Ignition Lock ON/OFF :

1. Open the Door of your vehicle.
2. With your vehicle key in the key cylinder, turn it ON and then switch it OFF.
3. Press and release the valet switch three times.
4. Press and hold the valet switch.
5. Three-chirps verifies the ignition lock mode feature.
6. Press the transmitter Lock button (while holding the valet switch), a single chirp verifies the ignition lock mode is ON.
7. Two-siren chirps verifies the ignition lock mode is OFF.

8. Release the valet switch.
9. Turn the ignition ON.

3.4 IGNITION UNLOCK MODE

Ignition Unlock mode means that all doors will unlock automatically when ignition key is turned OFF.

Programming Ignition unlock ON/OFF :

1. Open the Door of your vehicle.
2. With your vehicle key in the ignition, turn it ON and the then switch it OFF.
3. Press and release the valet switch four times.
4. Press and hold the valet switch.
5. Four-chirps verifies the ignition unlock mode feature.
6. Press the transmitter lock button (while holding the valet switch), a single chirp sound verifies the ignition unlock mode is ON.
7. Two-siren chirps verifies the ignition unlock mode is OFF.
8. Release the valet switch.
9. Turn the ignition ON.



Section 3: Dealer Programmable Features



3.5 SIREN CHIRP

Siren chirps are produced whenever the system is armed or disarmed. This can be programmed ON/OFF as per the user requirement.

Programming Siren chirp ON/OFF.

1. Open the Door of your vehicle.
2. With your vehicle key in the ignition, turn it ON and then switch it OFF.
3. Press and release the valet switch FIVE times.
4. Press and hold the valet switch.
5. Five-chirps verifies the siren chirp ON/OFF feature.
6. Press the transmitter Lock/Unlock button (while holding the valet switch), a single chirp verifies the siren chirp is ON.
7. Two-siren chirps verifies the siren chirp is OFF.
8. Turn the ignition ON.

3.6 TWO-STAGE SHOCK SENSOR

This is a very important feature of security, thereby enabling further protection of your vehicle from any shock or break in . If any body tries to tamper with the vehicle, the alarm triggers, warning you that your vehicle is being intruded. The triggering of the alarm is in two

stages, first acting as a warning to the intruder and then at full blast. The impact sensor senses any jolts or bumps associated with vehicle intrusion. This feature can be programmed ON/OFF as per the users requirement.

Programming Shock Sensor ON/OFF.

1. Open the Door of your vehicle.
2. With your vehicle key in the ignition, turn it ON and the then switch it OFF.
3. Press and release the valet switch SIX times.
4. Press and hold the valet switch.
5. Six-chirps verifies the shock sensor ON/OFF feature.
6. Press the transmitter Lock/Unlock button (while holding the valet switch), a single chirp verifies the shock sensor is ON.
7. Two-siren chirps verifies the shock sensor is OFF.
8. Release the valet switch.
9. Turn the ignition ON.

3.7 ANTI-HIJACK MODE

Anti hijack mode can be used to discourage potential hijackers from violating you and your vehicle whilst driving. The opening of the car door triggers it when you are driving and ignition is ON. The siren will start chirping





Section 3: Dealer Programmable Features



after 20s of triggering, it will continue to chirp for 20 seconds after that it will continuously sound. After the trigger the remote transmitter ceases to function and emergency disarm code must be entered to come out of anti hijack mode. Before the continuous sounding of the siren one can turn OFF the trigger by pressing the valet switch once and can drive normally.

Programming anti hijack mode ON/OFF :

1. Open the Door of your vehicle.
2. With your vehicle key in the ignition, turn it ON and the then switch it OFF.
3. Press and release the valet switch SEVEN times.
4. Press and hold the valet switch.
5. Seven-chirps verifies the anti hijack mode ON/OFF feature.
6. Press the transmitter Lock/Unlock button (while holding the valet switch), a single chirp verifies the anti hijack mode is ON.
7. Two-siren chirps verifies the anti hijack mode is OFF.
8. Release the valet switch.
9. Turn the ignition ON.





Section 4: Transmitter Battery Replacement Instruction



Recommended Battery: +12V, 23A/27A

1. Remove the screw from the back of the transmitter.
2. Remove front cover, remove the old battery carefully.
3. Replace with a fresh new battery and close front cover.
4. Press any button to check for light flash from the LED.
The battery being replaced should only be inserted after checking the polarity.



Normal battery life is approximately two years, but varies depending on usage. For optimum performance and RF range, replace the battery at least once a year. It is advisable to get the battery replaced by an authorised Mahindra dealer or service centre.



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Trouble Shooting

PROBLEM	POSSIBLE CAUSE	Remedies
Red indicator light of the transmitter does not light while the control buttons are pressed.	+ Battery of the transmitter is weak. + Battery of the transmitter is not placed in the transmitter with correct polarity.	+ Replace the battery. + Correct the polarity.
Transmitter can't activate or deactivate the alarm or central lock system.	+ Battery of the transmitter is weak. + Transmitter is exposed to water or it is wet. + In-line supply 5A fuse is blown.	+ Replace the battery. + Dry out the transmitter. Resetting may be necessary. + Replace the fuse.
Control distance of the transmitter becomes nearer (less than 10m)	+ Battery of the transmitter is weak. + Strong RF interference (eg. mobile phone is in operation beside the vehicle).	+ Replace the battery. + Drive the vehicle away from the particular spot and re-test the control distance.
It is difficult to activate or deactivate the system in certain areas using the transmitter.	+ The strong interference caused by excessive RF activity in a particular area.	+ The interference is temporary and only while the vehicle is in that area.
Open door(s), or bonnet, alarm does not trigger.	+ The contact point of the door(s), front bonnet is faulty. + The connection of door(s), or bonnet switch is loose.	+ Clean the door and bonnet contact points. Replace if necessary. + Re-join.
Siren does not sound when alarm is triggered.	+ The connection of the siren wire is loose. + Siren is faulty.	+ Re-join. + Change the siren.
Only sound indication but no light indication when the system is activated or deactivated.	+ The indicator light connection wire is loose.	+ Re-secure/tighten.
Driver's door lock can be controlled by the transmitter but no response from the other 3 doors.	+ The connection wire is loose. + Front right door lock actuator is faulty.	+ Re-secure/tighten. + Replace actuator.
When the alarm system is "OFF", the engine will not start after several attempts, and the alarm siren sounds.	+ The vehicles battery is weak.	+ Change the battery.

SECURITY SYSTEM



EU-V M-Hawk SUV OM; March 2012

