

NOVOCITI

USER MANUAL

ISUZU

Revision No: 01

Preface

This user manual is created to give you information on how to use your vehicle as efficient and economic as possible. We advise you to read the information given within this manual carefully and comply with all warnings. We would like you to know that our company will not be liable for any material, moral problems and damages may occur from any case of not complying the cautions given within this manual.

If you require any further information about your vehicle, you can contact the authorized dealer or authorized service.

Always keep the user guide in your vehicle.

Due to our efforts on enhancing our vehicles, there can be adjustments on shape, equipment and technical areas. The information within this user manual (pictures and technical information) are the current up to date product information and Anadolu İsuзу A.Ş. Keeps all the rights on the changes without notice included.

Thank you for choosing this product.

We wish you a good drive.

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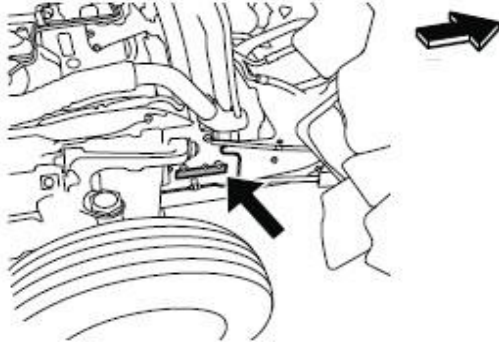
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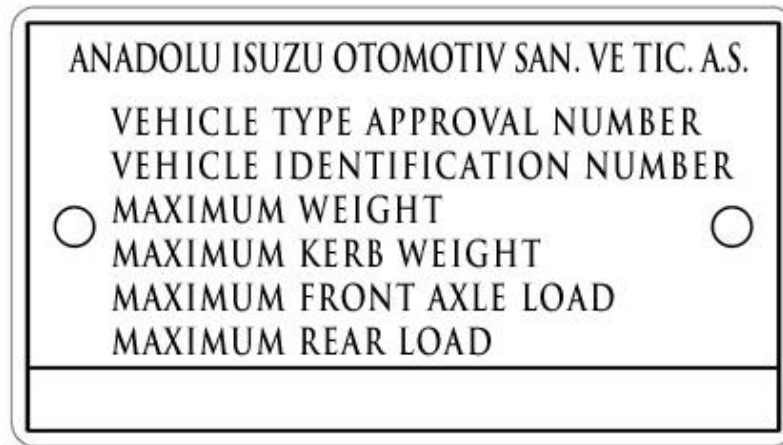
1. INTRODUCTION

CHASSIS NUMBERS



Chassis number is printed on the right front of the chassis.

IDENTIFICATION PLATE

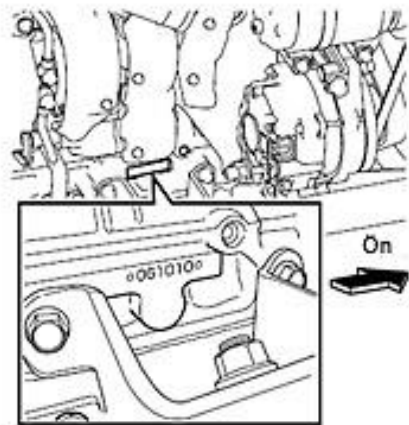


Identification plate is located at the front door entrance, on the right side, at the level of the step. The identification plate includes the VIN number, the sum of the axle load, the maximum front axle load and the maximum rear load.

VIN number includes; vehicle model, maximum loaded weight, engine type, drive system, wheel base, vehicle location of production code with vehicle chassis number.

BUS VIN SYSTEM																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
N	N	A	M	0	B	V	L	N	0	2	0	0	0	0	0	1
(EXAMPLE)																
1-3	WORLD MANUFACTURER CODE:					NNA:	(AIOS) ANADOLU ISUZU OTOMOTIV SANAYI VE TICARET ANONIM SIRKETI									
4	MODEL					M:	BUS GROUP									
5	MAXIMUM LOADED					0:	UNBUNDLED FROM THE NUMBER OF SEAT									
6	MODEL EXTENSION					S:	STANDARD									
						A:	AIR SUSPENSION									
						Z:	AIR SUSPENSION (EXPORTED TO EUROPE)									
						L:	TRUSSED									
						B:	MUNICIPAL TYPE									
						H:	AIRDOOR STANDARD									
						E:	MUNICIPAL TYPE (ALGERIA)									
7	ENGINE TYPE					2:	INTERURBAN TYPE									
8	DRIVE SYSTEM					V:	ISUZU - 4HK1E5N									
						L:	LEFTHAND DRIVE									
9	WHEEL BASE					R:	RIGHTHAND DRIVE									
						G:	2765mm									
						L:	3365mm									
						M:	3065mm									
						E:	3815mm									
10-11	LOCATION OF PRODUCTION					F:	4150mm									
						N:	3385mm									
						01:	AIOS KARTAL FACTORY:									
12-17	PRODUCTION SEQUENCE NUMBER					02:	AIOS GEBZE FACTORY:									

ENGINE NUMBER



Engine number is written on the right front of the engine block.

VEHICLE WARRANTY

The warranty period and conditions of the vehicle are stated in the "Warranty Certificate" given with the vehicle. For details of warranty conditions and transactions not covered by warranty and given information can be reached by "Warranty Certificate" .

2. ADVISES/CAUTIONS

1.BEFORE DRIVING YOUR VEHICLE

1. Inspection with engine overhaul cover open

Fan belt strain and damage
Engine oil level inspection
Engine coolant level inspection
Steering hydraulic level inspection

2. Inspection on passenger seat

Brake fluid level and clutch level
Brake pedal gap
Clutch pedal gap
Operation of indicators and indicating/warning lamps
Engine mobility, unusual sound and colour in exhaust gas
Handbrake lever stroke
Windshield washer liquid spraying condition and windshield wiper activity
Windshield washer liquid level
Steering wheel location and gap
Operation of horn and turn signal lamps
Fuel Level
Operation of door locks

3. Inspection while walking around the vehicle

Lighting, flashing or stained or distorted lamps
Accumulation liquid level
Leaf spring damage
Oil, coolant, fuel, brake fluid, power steering fluid and HBB oil leakage
Accumulation of water in the fuel filter (bottom)

4. Inspection on tires and wheels

Tire pressure
Cracks and other damages
Special depreciation
Tread Depth
Wheel rim installation state

5. Inspections made while driving

Brake activity
Engine control at low speeds and speed increases

Use the Specified Fuels

All the time only use lower amount of sulphured diesel fuel (50 ppm amount or less of sulphur) or with super low sulphured diesel fuel (10 ppm amount or less sulphur). The use of poor quality diesel fuel, any addition of an additional substance such as a fuel cleaner in the tank with gasoline, kerosene or an alcohol-based fuel or a mixture of diesel fuels can damage the fuel filter and cause injectors to have a lubrication problem on the fuel lubricated components. Apart from all, this could damage the exhaust emission system of the engine and DPD, which could cause the malfunction of engine-related systems. Drain all the fuel from the system in case where an unsuitable fuel is accidentally filled in. If the caution is not applied, when the engine starts it could result in a fire or permanent damage. If a low sulphur or super sulphur diesel fuel is used in the vehicle with DPD, any occurring accidents will be considered outside of the scope of warranty.



Diesel fuel specifications vary by season and region.

Refuelling at Fuel Stations

When refuelling your vehicle;

- Stop the engine, close the doors and windows of the vehicle.
- Do not approach the vehicle with cigarettes and other flammable substances.
- Before opening the fuel filler cap, touch something metal to discharge static electricity from your body. If a static charge has accumulated in your body while refuelling, a spark generated by discharging can ignite fuel and cause burning.
- When refuelling the vehicle, fully insert the fuel nozzle into the filler neck. It is dangerous to try to fill more fuel by pumping fuel with a partially pulled out nozzle. Because the automatic stop mechanism may not work thus may cause fuel to overflow. All stages of the refuelling procedure (from opening the fuel filler cap to the completion of filling and closing the fuel filler cap) must be performed by the same person. Others may carry static electricity. Do not allow others to approach the fuel tank. The person refuelling should not return to their seat in the cabin in the middle of the procedure. They may collect static electricity by doing that.
- Do not use any fuel filler cap that is not an original Isuzu item.
- Follow all the warnings at filling stations.

Do not keep fuel cans and spray cans in the cabin.



Keeping a fuel can and spray can in the cabin is extremely dangerous. Ignition or cracking of a container such as these items may cause a fire or explosion.

Usage of Curtains

Keep the curtains in a way not to interfere with your vision and driving.

Keep the Surrounding of the Driver's Seat Clean and Tidy



It is extremely dangerous to have empty boxes rolling on the floor, empty bottles and other items. Because these items can get stuck under the brake pedal and prevent the usage of brake pedal. It is also very important that the floor mats are properly placed for suitable pedal use. Improperly placed floor mats will prevent the pedals from moving smoothly.

Do not use the front panel space or the top of that space as a place to put rolling items that could interfere with your drive.

Correct Driving Position

Before driving, be sure to set the seat, steering wheel and mirrors are in the correct driving position for you. Make sure that the seat is firmly in place by moving forward and backward while seated, then fasten your seatbelt.

Seat Adjustment;

Adjusting the seat for the correct driving position is the most important part of safe driving.

Seat adjustment recommendations
Adjust the steering wheel in a way that your elbows are slightly bent so that you can easily turn the wheel whenever you want.
Always position the backrest in a way that it touches your shoulders.
Make sure you can press each pedal.

Adjusting the steering wheel position;

You can adjust the steering wheel position in up and down and back and forth directions. When you have adjusted the steering wheel, try pulling it up and down to check if its securely locked before driving.

Fastening the seatbelts;

Make sure you fasten your seat belts



Seatbelt buckle warnings.

Place the seatbelts on your hip level.

Wear the shoulder strap over the shoulder. (Make sure that it does not touch your face)

Make sure that the seatbelts are not twisted when you fasten.

2.DRIVING

Check the Area Around the Vehicle Before Starting the Engine

Before moving, carry out a thoroughly done safety check, make sure that there are no children or any obstacles around the vehicle.

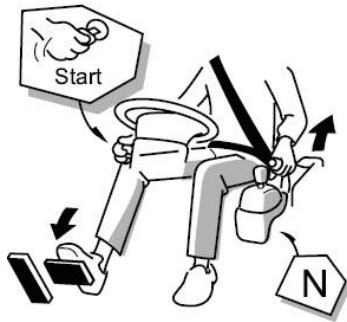
Make sure that there are no flammable substances under or around the vehicle before starting the engine.

Pay Attention to Exhaust Emissions

- Exhaust emissions contain carbon monoxide which is colourless, odourless and toxic. Inhaling exhaust emissions may cause carbon monoxide poisoning.
- Do not leave the engine running for some time in a poorly ventilated place. It is particularly dangerous to run the engine in a garage or other confined space where it can easily fill the space with exhaust gases which can cause carbon monoxide poisoning.
- Check the exhaust pipe time to time. If you see any damage (for example a damaged connection piece with a wear or a hole or crack), visit the nearest Isuzu service for control and maintenance. It will be dangerous to continue driving without repairing the damage. Because exhaust gases can enter the cabin thus cause carbon monoxide poisoning.

- If exhaust gases get inside the cabin, open all windows completely and switch AC's interior/exterior air selector mode on exterior. Make sure you bring your vehicle to the nearest Isuzu service for control and maintenance. It will be dangerous to continue driving without repairing the damage. Because exhaust gases can enter the cabin thus cause carbon monoxide poisoning.

Starting the Engine



Make sure the handbrake is pulled safely. Make sure to check that the gear selector is in the “N” position before starting the engine then hold the clutch pedal fully pressed.

Engine Heating

When the engine coolant temperature indicator hand starts to move, it shows that the engine is sufficiently warm.

- Do not increase the engine speed or accelerate the engine immediately before the engine has heated sufficiently. A malfunction occurs if either parts do not reach and cannot be lubricated enough.
- The exhaust pipe overheats when the engine is idling. Make sure that there is no flammable material (For example dry grass, rubbish paper or old tires) near the exhaust pipe before heating the engine.

Do Not Start the Engine in the Garage

Running the engine in an insufficiently ventilated place may lead to carbon monoxide poisoning. Choose a well-ventilated place to start and heat the engine. Also do not perform manual DPD regeneration on a model with a diesel particle dispenser (DPD). DPD regeneration process emits white smoke during combustion of particulate matter (PM).

Pulling the Handbrake

Start gently in 2nd or lower gear. (1st gear on hills)

Starting on a high gear, too quickly or clutching too long when starting will damage the clutch.

Downshifting

Downshifting is done for two reasons:

- For engine braking on steep slopes and/or long downhill slopes
- Quick solutions and economical easiness while driving uphill

and downshifting

- Over-speeding the engine may cause engine failure. Do not over-speed the engine during downshifting.
- Uphill driving; perform downshifting to avoid heavy engine load.
- Downhill driving; you should use the gear you used while driving uphill. Drive the vehicle at such speed that it does not cause the engine to over-speed thus make the tachometer enter the red zone.

Drive at a speed that will not cause the tachometer to not to show that it has entered the red zone. The green zone is a good route for economic driving.

Do Not Stop the Engine While Driving

Do not turn the ignition key to any position other than "ON" (OPEN) while driving. Stopping the engine while driving can be quite dangerous because;

- Brakes do not work properly. Using the clutch pedal and the steering wheel will be more compelling and stiffer. It may also damage the engine.
- Operation of the hydraulic steering wheel will make turning the wheel difficult.
- The warning lights and other electrical circuits will stop working completely.
- Steering wheel can be locked.

Do Not Continue Driving with Flat Tires

If you feel something unusual in a tire while driving, stop immediately in a safe place. If you continue driving with a flat tire, excessive force may be applied to the wheel studs thus may cause the bolts to break and tire to fall off.

If the Bottom of the Vehicle Gets a Hard Blow

If the bottom of the vehicle receives a hard blow, stop in a safe place and check if there is any brake fluid leak, fuel leak and component malfunction. If any part of the vehicle fails or breaks, have the vehicle inspected and repaired immediately by the nearest Isuzu service.

Economic Driving

Driving at very high engine speed, driving at low engine speed making sounds at the engine, when the exhaust brake is always engaged, when exhaust brake is always open and adjusting to the speed are often result in low levels of fuel economy. Drive at a constant speed as much as possible. While speeding up, accelerate gently, slowly and shift the gear beforehand. Heating the engine longer than necessary and using the engine on high speed is wasting fuel. Driving with an overloaded vehicle also means wasting fuel. Check the tire pressures frequently.

Safe Driving



1.Cautions While Driving

- Concentrate on safely driving by following traffic signs and traffic lights to all legally set speed limits.
- Do not turn the ignition key to any position other than “ON” (OPEN) while driving. Operation of the hydraulic steering wheel will make turning the wheel difficult. Also, brakes will not work properly and will endanger you.
- If you notice any abnormal sound, smell or vibration from any part of the vehicle, stop right away in a safe place and check immediately.
- If a warning lamp comes on or an audible signal comes on while driving, stop the vehicle in a safe place immediately and check.
- Do not place your foot on the clutch pedal when you are not using the shift lever. Doing so may cause early abrasion of the clutch.
- Slow down when approaching a turning point. Pressing on the brakes or turning the steering wheel sharply when turning a corner may cause wheels to slip and the vehicle to fall.
- Do not put your hand on the gear level unless you are changing the gears while driving. Doing so may cause the transmission to malfunction.
- Avoid rubbing the sidewall of the tires with paving stones or avoid driving over pits and ledges on the road surface. You may damage the tires and cause the tires to explode or come down.

Usage of Brakes

The stopping distance of the vehicle consists of a response distance (from the point where the driver senses danger to the point when the brakes operate) and a braking distance (from where the brakes began operating) to the point when the vehicle stops. Take the stopping distance in consideration while driving. Maintain a speed and travel distance that allows you to stop safely even if there is a dangerous situation.

If the Windshield is Misted

Use the heater to blow warm air to the windshield or dehumidify the cabinet using the air conditioner and turn the air ventilator to “” or “” option. Put interior/exterior option on exterior. Also use an anti-mist spray.

Night-time Vision

If there is an oil layer on the windshield, the approaching traffic lights may be reflected in many directions, making it difficult for you to see your way. Use a window cleaner to clean the windshield and wiper blades.

Night Drive

Driving at night is more dangerous than driving at daytime. Because the field of vision is narrower. Keep your speed low and maintain a safe amount of distance while driving.

Driving in Foggy Weather

Switch on the fog lights and drive slowly under the guidance of the central road line. It is dangerous to follow only the lights of the vehicle ahead. Because it can mislead the driver. Drive carefully.

Driving on Snowy or Icy Roads

- Never accelerate suddenly on slippery roads, do not brake hard, do not speed up quickly or take sharp turns with the steering wheel.
- There is a danger of reduced grip and increased braking distance between tires and road surface. The danger of icy road surfaces are particularly high in dark places on bridges and in puddles. Keep your speed low on snow or frozen road surfaces and remember to use tire chains or snow tires.

Driving on Surfaces in Bad Condition (Muddy or Sandy roads)

If the vehicle gets stuck in the sludge, pressing the accelerator pedal too far will simply push the sludge deeper and make it more difficult to remove. In order to gain traction, put stones, tree branches, or a cover under the tires or drive the vehicle back and forth to use the speed of the vehicle.

Using the tire chains is an effective way to prevent being stuck if you have to drive deep in the mud.

Avoid sudden braking when driving on a muddy or sandy road, avoid acceleration and turn steering wheels and taking sudden turns. Such movements can cause the vehicle to sink and will result in moving the vehicle impossible.

After driving in deep mud, the mud sticking on the vehicle can damage the steering brakes and the power connection mechanisms. Wash the vehicle and remove all sludge and other coatings.

Cleaning snow from window and from bottom of the vehicle

Use a plastic scraper to clean snowy and frosted glass surfaces to maintain adequate visibility. By using a plastic rubber scraper, you can clean the snowy and frosted parts. This time, check if the wiper blades are frozen on the windshield. Also look under the vehicle and remove any ice particles stuck under it. Be careful not to damage the vehicle.

2. Be Careful While Parking, Parking in

Cold Weather

Do not use the handbrakes. If you pull the handbrake, the cables and brake pads may freeze which makes it impossible to lower handbrakes down again. Park the vehicle in gear.

Do not forget to put wedges against tires. If possible, park the car in garage to prevent freezing of parts and facilitate starting the engine.

3. Winter Tires

Use winter tires that are of the same size as standard tires. The tread grooves of a winter tire have reached the wear limit when opened to half of the tire depth. During abrasion period, the flats indicating that the condition of the tire which can no longer perform well on the snow become visible in the cavities. Change the tires with new ones.

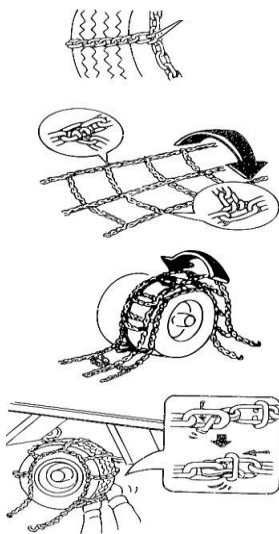
Usage of the Tire Chains

Before winter comes, make preparations for the use of tire chains by adjusting the length and by checking for any damage.

Tire chains cannot be attached to the front wheels. Attach the appropriate tire chains to the tires on the back.

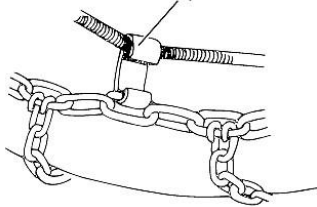
Putting on the tire chains.

1. Make sure that the tire chain is not twisted and place it on the tire with bent edges faces outwards (the parts where it touches the surface).
2. Pull the both sides of the tire chain as far possible. Assemble the inner hooks first and then the outer hooks.
3. Fasten the excess part of the chain with the cable to prevent it from striking the vehicle's body part or brake pipes.
4. Hook the lashing rings on the chain strap (lashing rings outwards) with the lashing rings around the strap.
5. After installing the tire chains and driving for a while, check that the chains are loose or untied.



Removal of tire chains

1. Remove all cables and chain bands, open the outer hooks and finally the inner hooks.
2. Move the vehicle and remove the tire chain.



3.STOPPING AND PARKING

- Select a location where stopping and parking is prohibited and the vehicle is not obstructing traffic. Pull the handbrake.
- Remove all the dirt from the headlight lenses and reflectors so that the vehicle can be seen by other vehicles.
- Do not pull the handbrake until the vehicle has come to a complete stop, except in case of an emergency. Pulling the handbrake before the vehicle stops may cause malfunctions.
- If the vehicle is to be parked on a slope, apply additional measures after pulling the handbrake and chock the wheels or leave the vehicle in gear. Leave the steering wheel in a direction where it can hit an obstacle and stop in case of vehicle moving.

Keep the Flammable Materials Away from the Vehicle

- The exhaust pipe is extremely hot immediately after driving. Before parking, make sure that there are no flammable substances around (for example dry grass, paper waste, oil or old tires). Be extra careful while parking in a garage.
- Observe exhaust gas warning when operating engine on idle. Pay extra attention when regenerating the diesel particle dispensator DPD in case of engine idling (If your vehicle is equipped with DPD).

Stopping and Parking the Vehicle with the Engine Running

- Put the gear shift level on “N” and pull the handbrake. If you do not follow these steps, any unwanted pressure on the accelerator pedal may cause an accident.
- In diesel particle dispensator (DPD) model, the engine will start the renewal automatically in DPD when the vehicle is stopped and when the engine is running. Make sure that there are no flammable material near the muffler DPD and the exhaust pipe to prevent a fire.

Exiting the Vehicle

- Make sure that you pull the handbrake, stop the engine and lock the doors when you exit the vehicle. Do not leave your valuable items in places where they can be seen.
- If you are driving with a child, don't leave them alone in the vehicle. A child can play with the equipment in the vehicle, which can result in an accident. (For example, the vehicle may move or a fire may start) Also, the interior cabin can become dangerously hot.
- Do not leave a lighter or glasses in the vehicle. If the temperature rises dangerously in the cabin, the lighter could explode and any plastic glasses can get deformed.

4. SAFETY CONDITION

When the Engine Coolant is Hot

Do not loosen or remove the radiator cap when the engine coolant is hot.

When the Muffler and Exhaust Pipe are Hot

The diesel particle dispensator (DPD), muffler and exhaust pipe are extremely hot when the engine is running and when right after a drive. Be careful not to accidentally touch them when working near them (for example tipping the container or operating an intermediate part).

Do not install accessories on the windshield or windows

Do not install decorative films or other accessories on the windshield or windows. Any plastic glass suction cups used to attach accessories can also cause fire or other accidents such as windows.

Use of the Jack

- Make sure you lift the vehicle with a jack on from a hard levelled surface.
- Adjust the jack in the correct position. Pull the handbrake first then chock the wheels.
- When one of the rear wheels is jacked up, the parking brake has no effect. It may be dangerous not to chock the wheels in the right places before lifting because the vehicle may move.
- Do not look under or enter the vehicle when its jacked up.

5. PREVENTION OF MALFUNCTIONS

Do not leave the steering wheel fully turned for a long time

If you leave the steering wheel full turned for a long time, oil pumping in the hydraulic steering will overheat. This may lead to hydraulic steering wheel damage, hydraulic steering wheel unit damage and hydraulic steering wheel air way damage which are the results of insufficient lubrication and disruption of sealing ring. In result, it will be very difficult to turn the steering wheel and this may lead to fire or other incidents to occur.

Make Sure You Get Your Car Checked Regularly

The Inspection and maintenance services are for you to use your vehicle peacefully. Besides, these procedures will extend the service period of your vehicle.

Do Not Make Changes on Your Vehicle

- Any pieces put that are not suitable for the vehicles' performance and functions can cause malfunction and accidents. Adjustments (for example engine adjustments) and instalment of equipments can be done with the supervision of Isuzu services.
- If you want to put on additional accessories, you will have to consult with Isuzu services.

Changing Tires and Wheels

Before changing tires or wheels, consult with the Isuzu service. Never use any wheels that are not suitable for your vehicle or different tires in different shapes which again are not suitable for your vehicle. These conditions will affect your safety.

Installing Electrical Equipment

Improper installation or removal of audio or other electrical equipment may adversely affect other electrical equipment and may cause a malfunction or fire. Also, this may lead for sudden unexpected airbags to open. Any electrical equipment should be put by Isuzu service.

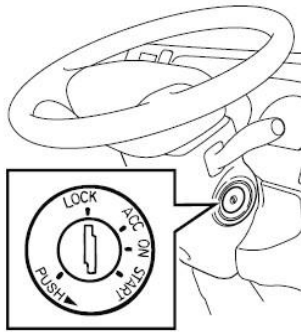


Do not put on an unlicensed radio or any radio that does not comply with the relevant standards. Noise coming from the radio may cause electromagnetic interference with the vehicle's electric equipment and other systems, which may result in vehicle failure or electrical equipment failure.

3.GENERAL INFORMATION

STARTING AND STOPPING THE ENGINE

Ignition Key



LOCK: On this option, place the key or put it out. Remove the key and turn the steering wheel until it's locked. Steering wheel will lock in order to prevent any theft. In order to put the ignition key into "LOCK" mode, insert the key and press it on "ACC" position and turn to "LOCK" mode.

ACC: On this mode, you can listen to music and use other accessories while the engine is off.

ON: Key will remain on this mode while the engine is working. This mode on the other hand, can be used as pre-heating before starting the engine.

START: Start the engine at this mode. Release the key as soon as the engine starts. The key will go back to "ON" (OPEN) mode automatically.



If the key is not turned from "LOCK" (LOCKING) to "ON" (OPEN) mode, when trying to turn the key turn it clockwise or counter clockwise gently.

Starting the Engine

Windshield wiper blades, headlamp controller and AC keys remaining within, make sure you set the key "OFF" (CLOSED) mode.

Make sure you set the key "ON" (OPEN) mode in order to set indicator and warning lamps to light up normally and fuel level is enough.



Do not leave the ignition key on "START" (START) mode more than 10 seconds. Running the ignition key for a long time may cause accumulation failure or with overheating may lead to fire.

Stopping the Engine

Pull the handbrake fully. With the gas pedal released, turn the ignition key to “ACC” or “LOCK” (LOCKING) mode.

OPENING and CLOSING the DOORS

Chip Immobilizer transponder Key

The key contains an immobilizer transponder chip. The immobilizer anti-theft system ensures that the engine will only start when it receives signals from the previously recorded transponder.

However, you may not be able to start the engine in the situations listed below, even if a pre-registered key is used. If the engine does not start because of the metal key chain, remove the key chain and try again and set the ignition key on “ACC” mode or “LOCK” (LOCKING) mode and then turn it to “START” (START) mode.



- Do not leave the ignition key on “START” more than 10 seconds.
- Keep the metal label with key code on away from the vehicle.
- If you lose the key, contact to the nearest Isuzu Service.

Keyless Entry System

With the keyless entry system you can open the doors/or lock them simply by pressing the remote control button.

Opening

Press the door release button on the remote control. The car’s keyless entry system causes the right and left turn signal lights to illuminate twice at the same time after receiving signals from the remote control unit.

Locking

Press the locking option on the remote control. The vehicle’s keyless entry system causes the right-hand side turn signal lamps to illuminate once after receiving signals from the remote control unit.

OPENING OF THE DOORS IN CASES OF EMERGENCY



Air relief taps are located on the upper side of the door for cases of emergency. When necessary, purge the air by turning the tap clockwise and open the doors by pushing them outwards.



There are also air relief taps on the sides of the doors so that they can be opened from outside if necessary. Turn the tap clockwise and pull the door from outside and open.



When the vehicle is locked from the outside with the key, there is a red unlock/lock control on the door to open the door if there is a passenger inside. If necessary, the control is to be rotated in the arrow direction and the air is purged by turning the air relief tap. Then the door is to be opened by pushing outwards.

In addition to that;

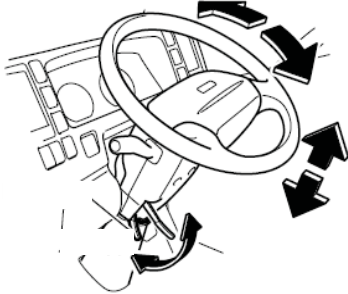
There is a total of 3 glass panels to be used as emergency exits of which 2 of these are located in the left and 1 in the right side of the vehicle. These glass panels have indicative emergency exit stickers on them.



An exit could be made through breaking these glass panels by use of an emergency hammer.

STEERING WHEEL ADJUSTMENT

Just as can be adjusted forward and backward directions, the steering wheel can be adjusted in the upward and downward directions too.



To adjust the steering wheel;

1. To open the lock of the steering column, pull up the lock lever selfward.
2. To choose the most suitable steering wheel position for yourself, sit in a suitable driving position and move the steering wheel upwards- downwards and forward-backward directions.
3. Lock the steering wheel in the chosen position strictly by moving the lock lever to the lock position.

To honk, push the surface with the honk symbol on it.

4.CONTROLS and DISPLAYS

FRONT CONTROL PANEL



Front Doors Control Key



The front door is opened by pressing the lower tip of the key.

Rear Doors Control Key



The rear door is opened by pressing the lower tip of the key.

Hazard Warning Switch



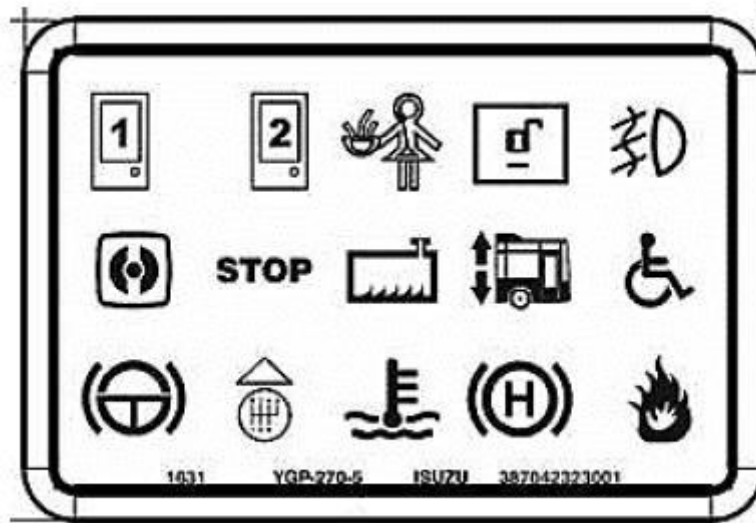
The hazard warning is opened by pressing the lower tip of the switch and closed by pressing the upper tip of it. When the hazard warning is opened, the function light located in the switch and signal warning lights in the display panel starts to flash along with all of the signalling lights of the vehicle and an audible warning is made.

Rear Suspension Lifting/Lowering Switch

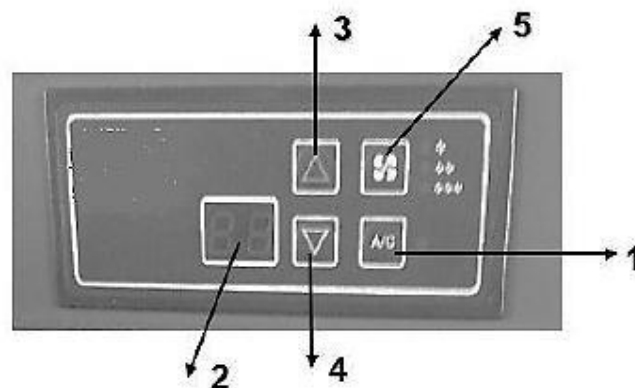





The suspension is lifted by pressing the upper tip of the switch and turns back to its normal height by pressing the lower tip of the switch.

Warning Light Lens



AIR CONDITIONER



1.  Whenever pressed, the recently set value self-activates automatically. The led next to it lights up. If the internal temperature value is greater than the setting value, the air cooling function will be activated.
2.  Shows the internal temperature in the form of two-digits. Temperature setting shall be made. by a gauge of 1 °C per setting.
3.  When pressed during the operation of the air conditioner, increases the previously adjusted temperature by 1 °C each time. The temperature could be raised up to a maximum level of 30 °C at most.

4.



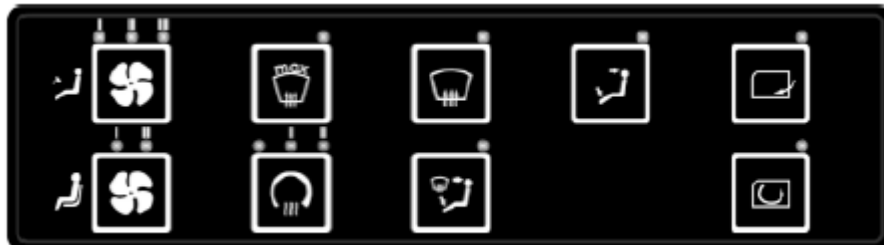
When pressed during the operation of the air conditioner, decreases the previously adjusted temperature by 1 °C each time the temperature could be lowered down to a minimum level of 18 °C at most.

5.



Each time the blower switch is pressed, the velocity stage increases.

HEATER



Is the control button of the front heater air flow. Provides for the control of the velocity rates of the blowers located in the front heater. When the lights are off, blower does not run.

When the button is pressed, a green light flash at the position I. The blower then runs in a low flow rate.

When the button is pressed again, the green light at the position II flashes up along with the position I light. The blower then runs in mid-level.

When the button is pressed again, the green light at the position III flashes up along with the position I and II lights. The blower then runs at the highest level.

When the button is pressed once again, lights turn off and the blower fan stops running.



Acts as a runner and stopper for the rear heater. When the vehicle is started, the rear heaters and the lights standing beside the button are in an off state.

When the button is pressed, the green light flashes up and the heaters start working in the first stage.

When the button is pressed again, the green light at the position II flashes up along with the position I light. At this point, the heaters shall work in the second stage which is the high-velocity stage.

When the button is pressed once again, the green light turns off and the heaters stop working the starting and stage adjustments and the suspension the heater is conducted through the use of this button. When the vehicle stalls, the lights turn off.



When the Max button is pressed, first the vault sets itself to the winter position, the throttle located in the upper part of the heater sets to the defrost position, the outside and inside throttle starts working so as to come to a position to absorb clean air from outside and lastly the blower motor gradually sets itself up and starts running at the highest level.

When the Max button is pressed again, it sets itself to the previously adjusted position. Pressing any other button while the Max button is on results in the de-activation of the Max mode and the adjustment recedes to the previous state in such a case.



Is the control button of Hot - Cold vault. If the blue light turns on whenever the button is pressed, it indicates that it is in the summer position. In that case, no hot water is transmitted to the heaters.

When the button is pressed the light's position, I flashes up whereas the vault opens at a 1/2 rate at the position I. At this point, a lukewarm air temperature is attained given the hot water transmitted to the heater has a rather low flowrate. Is the winter position.

When the button is pressed again, the position II of the red light flashes up along with the position I light. At the position II, the vault shall be in a fully open state. Heater works at full capacity. And it is in the winter position.

When the button is pressed once again, the red lights turn off whereas the blue lights turn on. And it recedes to the summer position. The vault runs at the position before which the vehicle was running with.



When the button is pressed the throttle starts moving. The green light standing beside turns on. The windshield is for the defrosting. When the button is pressed again, the light does not turn off and whenever another position button is selected the light turns off. The active position is the one before which the light was off. While the button is active, defrost shall be in an activated state.



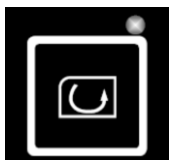
When the button is pressed, the throttle starts moving. The green light standing beside turns on. A given amount of air is directed towards the windshield whereas the another to the channels. When the button is pressed again, the light does not turn off and whenever another button is pressed to select the position, the light turns off. The active position is the one before which the light was off.



When the button is pressed, throttle starts moving. The green light standing beside turns on and the complete amount of air produced by the blower gets directed towards the channels. When the button is pressed again, light does not turn off. However when a position is chosen by pressing another button, light turns off. It's the position of which its light was on that is the active one.

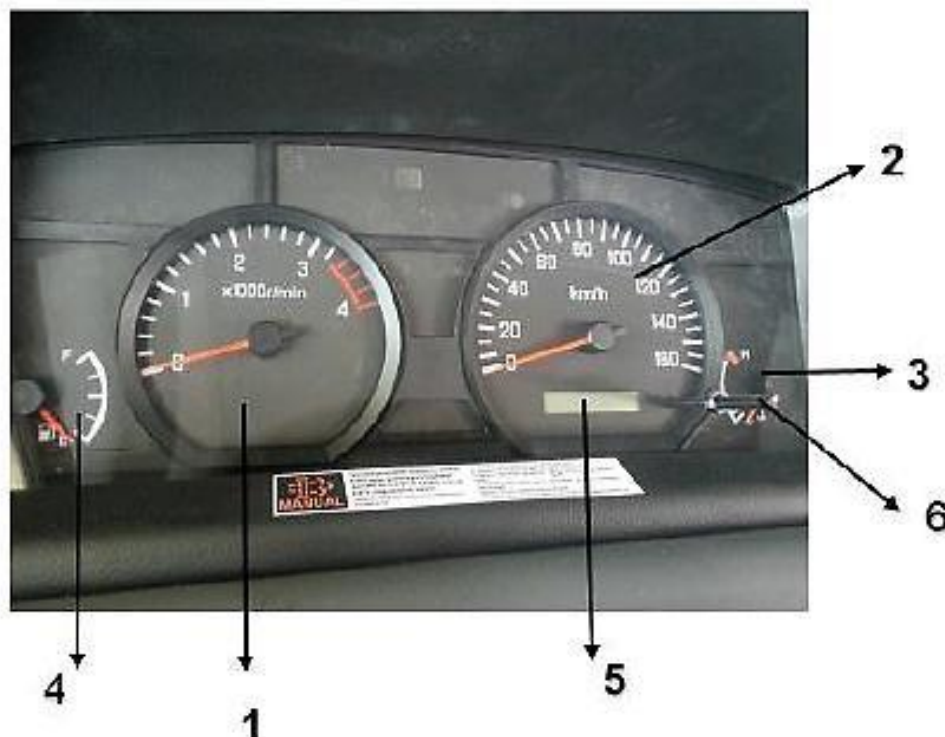


When pressed, it makes the inner-outer choice throttle move and then the green light flashes up. At this position it absorbs the clean air from outside needed by the front heater.



When pressed, it makes the inner-outer choice throttle move and then the green light flashes up. At this position it absorbs the clean air from inside needed by the front heater.

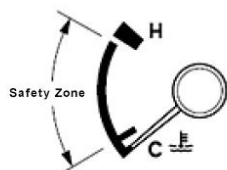
DISPLAY AND WARNING LIGHTS PANEL



1.Tachometer: The tachometer displays the motor speed as in the unit of revolutions per minute (RPM). (The “1” rate in the scale is 1.000 m./min. shows the min. value.) The red area between 3-4 indicates the dangerous motor speed range above the allowable levels. Do not drive while the pointer is in the red area.

2.Speedometer: The speedometer shows the vehicle speed in km/h or MPH. The speedometer is an integrable unit with a resettable mileage counter.

3.Engine Temperature Indicator: When the engine is “ON” (OPEN) it shows the engine coolant’s temperature. “C” means Cold and “H” means hot. The indicator point must remain in the safety zone while running.



If it exceeds the upper level of the security area and enter “H” area while driving, it means that the engine is overheating. Pull the vehicle safely to the side of the road. If the indicator point is not close to “H” and stays in the security are, it will not create a problem but check the engine coolant level anyway. Add coolant liquid if necessary.

4. Fuel Level Indicator: If the ignition key is on "ON" (OPEN) this indicator shows the fuel level. "F" means the tank is full and "E" means it's empty.



If your fuel is on low levels, then the low fuel warning lights will light up. Add fuel as soon as possible. Fill your fuel tank before you see the "E" sign and make a habit out of it.

5. Odometer: It shows the total distance travelled by your vehicle on km or mile level.

6. Mileage Reset: Shows the distance between specific points. To select and display the odometer that can be reset when you want to reset the odometer, use the select/reset button. The ignition key should be at "ON" (OPEN).

Warning Lights

Glow Plug Warning Lights



The ignition key is "ON" position to turn the glow plug light to come on within about 0.5 seconds when the engine is cold or when it gets too hot and the engine goes off in about 4 seconds. Start the engine after the glow plug light is extinguished, the ignition key to "START" (STARTING) position.

Warning Lights of the Brake System



This warning light should turn on the ignition key "ON" and should turn off after starting the engine. If this warning light illuminates while the engine is running, pull your vehicle in a safe place away from traffic immediately and contact with the nearest Isuzu service.

Warning lights of the brake system,

A reduction in brake fluid level (brake wear or brake fluid leaks, etc. reasons), abnormality in the charging system (e.g., loosening or breaking off of the generator or the fan belt) it burns.

Low Pressure Warning Lights



6 bar below the air pressure in the brake system, this warning light illuminates and gives a voice warning.

ABS Warning Lights



This warning light the ignition key "ON" position approximately 2 seconds then turn off when turned to, should be illuminated then should.

Anti-lock braking system (ABS) every time when there is a problem with the brake system warning light is lit along with. In this case, the ABS stops working, but brakes the service brakes will continue to work as normal. If this warning light illuminates while driving, immediately pull out the vehicle in a safe place away from traffic and apply the following.

- Stop the engine.
- Restart the engine. Make sure the ABS warning light on and then off. There is no problem if it is the way it is. ABS works normally.
- If the warning light or blinks continuously take the vehicle to nearest Isuzu service for a check.
- ABS continues to operate as normal brakes even though the brakes have a problem, in this case, this has no pressure on the operation of the ABS brake system.

Engine Oil Pressure Warning Lights



This warning light should turn on the ignition key "ON" and should turn off after starting the engine.

Lubricating the engine components when the engine is running when there is an abnormality in the engine's oil pressure, this warning light comes on. The tool immediately, pull to a safe place away from traffic. The lubrication system may be defective. Take your vehicle nearest Isuzu service to have your vehicle checked.

Engine Overheating Warning Lights



If the motor overheats, the engine will overheat indicator when the point enters the red area and the engine overheating warning light illuminates. Pull the vehicle to a safe place immediately.

If the coolant is still hot, do not open the radiator cap. Steam may be hot and can burn. The cooling fluid add fluid only when the temperature drops.

Charging Warning Lights



This warning light the ignition key "ON" (OPEN) should be illuminated when turned to the On mode, and then it should turn off after starting the engine. When there's a problem with the charging system when the engine is running (like a fan belt loose or broken) this warning light comes on.

Engine Warning Lights



This warning light should turn on the ignition key "ON" and should turn off after starting the engine. When the engine is running the engine when there's a problem with the electronic control system, this warning light comes on, take your vehicle to the nearest Isuzu service immediately

SVS (Service Vehicle Failure) Warning Lights



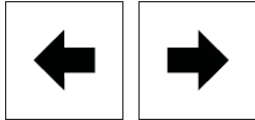
SVS warning light the ignition key to the "ON" mode and will illuminate when the engine is not running, and in this order the light bulb illuminates. The warning light will go off after the engine is started. If the warning light illuminates during use, immediately contact your nearest Isuzu service vehicle for further inspection.

Liquid Separator (Fuel Filter) Warning Lights



The water separator (fuel filter) the water need to be emptied when this warning light comes on. If the engine is running the warning light illuminates, immediately drain water in the fuel filter and the fuel pump may stop working if you keep driving while the warning light is on.

Flashers and Signal lamp



The ignition key "ON" position when the signal is executed when one of the lamps lit. The hazard warning flashers when the key is pressed, both the indicator lamp comes on.

Rear Fog Lamp



Illuminates when the rear fog lights are on.

Main Lamp



When selected main headlights or the front, long and short cycles between the headlights (when overtaking signal) turns on.

Handbrake Warning Lights



When you pull the handbrake, it illuminates.

Exhaust Brake Warning Light



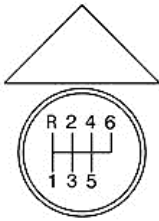
If you have a problem in the braking system, exhaust, exhaust brake warning light illuminates. Take your nearest Isuzu Service treated with vehicle control.

ASR Warning Lights

ASR

ASR warning light ignition key in the "ON" position and the lamp is extinguished, should be illuminated when turned to the colour of dark yellow green 2 seconds ago, before should return to. Anti-slip regulator (ASR) when using the colour remains in Green. If you have a problem with ASR off using the Switch glows orange when you get deactivate.

Gear Warning Light

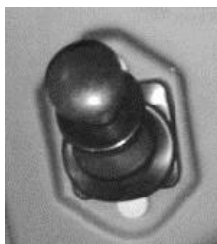


Upgrade your gear a warning light, a warning lens in the vehicle lights up when the engine speed is 2100 rpm. The internal buzzer to beep and the LED on the module is available with the output in parallel runs. The warning buzzer gives a warning Sound in the system, the LED output flashes. Vehicle speed 85 km/h in case of the occurrence of warning that continues for 5 seconds. The value of this speed warning at speeds of up to continuation.

SIDE CONTROL PANEL



1.Handbrake



Air Brake System hand type and it is spring-loaded. Stop the vehicle when the brake lever is pulled backward, the hand and the arm must be locked in the lower position. Free brake by pulling up on the bottom of the arm to lock the arm pegs in the front of the light. Driving (vehicle is running) handbrake is taken in vain when the air brake is insufficient (if it is under 6 bar) and if the warning light is on, before you move on to the dying of the light may be expected.

2. Emergency Switch



By lifting upward on the safety cap to use the red emergency switch is opened. Pushed forward in the system when the electricity is cut off, the motor stops, all lights and interior lighting stops. When removed, the system returns to normal.

3. Cup Holder

4. Lamp Switch Driver



To the lower end of the lamp when the switch is pressed it opens, the lamp turns off when is pressed on the top end.

5. Switch Ceiling Lamp



To the lower end of the switch is pressed, ceiling lamps opens on the top end when pressed turns off the ceiling lamps.

6. DPD Key



Press this key for the launching of the refresh operation manual.

7. Motor Heating Switch



When pressed the switch is engaged in the upper end to the lower end of the heating motor is disengaged when it is pressed on.

8. Line Plate Switch



The lower end is pressed, the plate line is active, when pressed, closes the upper end.

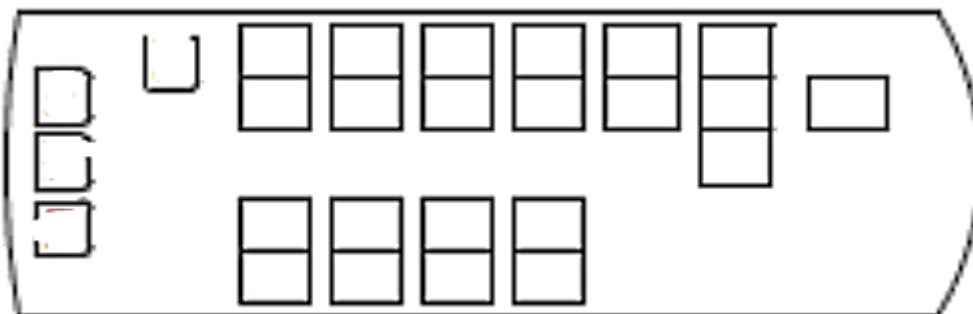
5. VEHICLE EQUIPMENTS

DRIVER'S SEAT



1. Backrest Tilt Adjustment
2. Setting Back and Forth
3. Fast Unload
4. Seat Tilt Adjustment
5. Adjustment of Height
6. Progressive Shock Absorber Setting
7. Kidney and Lumbar Support Buttons
8. Seat Heating

PASSANGER SEATS

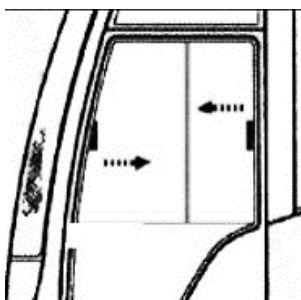


Passenger seat available in vehicle standards 25 (21+4 folding chairs). Passenger seats are upholstered in fabric. The rear of the vehicle door 4 folding chairs is available. The vehicle are priority seats on the side there are seat to the left of the binary ones and it is equipped seats on priority. Back against the door for disabled passengers, wheelchair space, the cushion and backrest is available.

	21\0	21\4	21\0
	0	0	1
	33	16	25
=	54	41	47

On the front side of the vehicle, the passenger capacity in the upper region has a tag. On this label, shows the capacity of the number of passengers sitting and standing.

DRIVER SIDE WINDOW



Driver side window has the double-moving the front wing and the wing anti-condensation double glazing property. By sliding glass window open and press the retainer in the direction of the arrows move the window.

ROLLER BLINDS

Window roller blinds are available in manual opening and closing the front of the vehicle. The adjustment on the left side of the 2 curtain ropes are available. The setting from one of the rope when you pull the curtain down, the other rope when you pull the spring inside the mechanism, by the spontaneously they can be gathered and go up.

DIGITAL WATCH



Hour Minute

On the front side of the vehicle slides to digital software which is available as a watch. Alternately on-screen clock, date and outside temperature can be seen. Also, when the stop button is pressed the "STOP" sign is displayed on the digital clock.

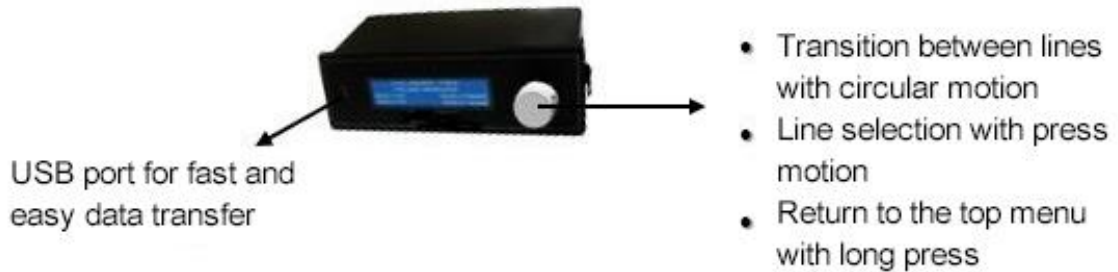
The clock with the left button, right button-minute setting can be made.

DIGITAL LINE PLATE

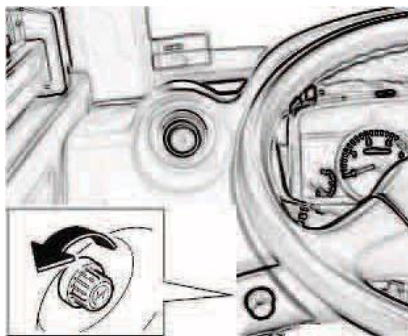
On the side of the 1 vehicle, in the front 1 floating-line sheet software is available. Sign using the control panel integrated on the front line, both lines data can be entered into the plate at a time.

Plate Control Panel Digital Line

Digital line control panel plate, pre-plate is mounted to the back of the digital line. Middle of the windshield inside the vehicle in the region and is located in the upper part.



IDLING UPGRADING BUTTON



This button is used to heat the engine. By turning the knob clockwise to warm up the engine without using the accelerator you can heat the engine. The motor for the heating process after using the button, turn back and hold them in this position.

MOBILE HOLDER



At the front of the vehicle, the driver's side window features a pocket in that section of the phone.

HANDLES



The passengers in the vehicle to hold traction on the pipes located in the handles which are available.

COVER CEILING VENTS



Ventilation purposes in the vehicle manual are available to cover the ceiling opening and a closing piece.

STOP BUTTON

The car is available in 2 different the stop buttons.

Stop button



Stop button for disabled passengers



The passengers who get out of the car, alert the driver by pressing the stop button that will allow you to go. About the button on the door turns and the digital clock on the light at “stop” sign appears. Also activates the audible warning. Doors are opened when the “STOP” sign and the warning in the button on the door goes off.

MIRRORS

Door Mirrors of the Back Door



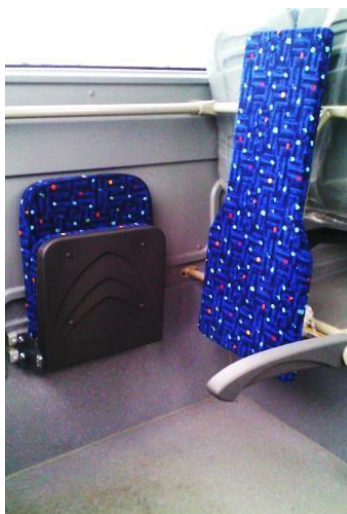
Interior Rear-view Mirror



Exterior Rear-view Mirrors



WHEELCHAIR RETENTION REGION



For arriving passengers especially for passengers with wheelchair in a vehicle to travel safely in the face of the rear door there is a special place.

DISABLED PASSENGER RAMP



For disabled passengers with wheelchair there are facilitations at the entry and exit to the rear door manually opens/closes the ramp was placed.

The use of the ramp



Passengers with disabilities who want to ride in the vehicle presses the button, the



warning illuminates a warning light on a lens, it also beeps. On this occasion;

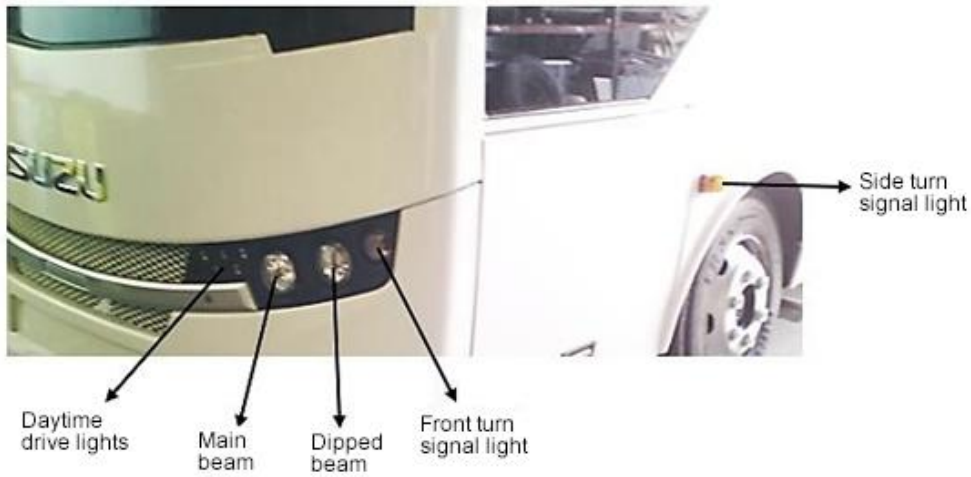
- The doors in the open position cover the section where the disabled ramp is located on the locks open. The cover by lifting up remove the bottom of the platform 2 from a shelter at the bottom of the ramp, the ramp pull to the outside of the vehicle. The end of the ramp when the ramp is pulled automatically on the top and the ramp platform is in the form of a single angle. Ramp as per the regulations of 7° to provide an angle on the way, and it should be placed on the sidewalk.
- Insert into the 2 slots on the side of the ramp with the purpose of shelter security.
- Take disabled passengers with a wheelchair to the car.

Place the ramp back into position;

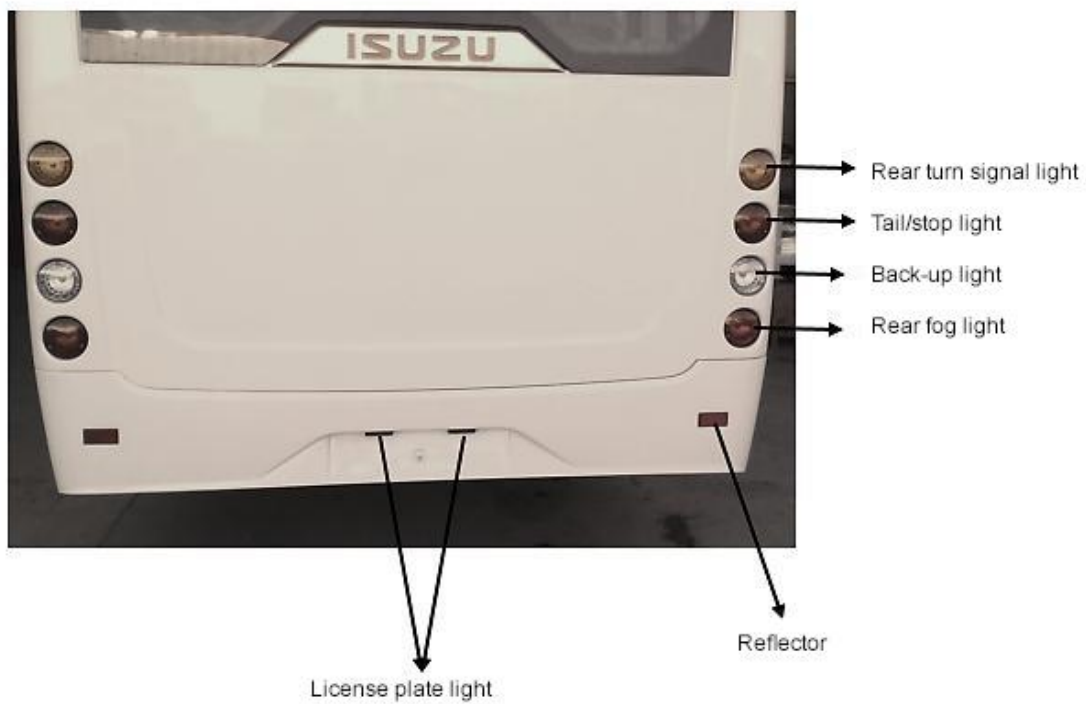
- Grasp the handhold of the ramp to the inside of the vehicle by removing it from the slot and push. Upper platform and the lower platform lifts up automatically during the push enters the bottom of the upper platform.
- Close the cover (right and left is provided by closing the lid locks by turning it on the side of the bolt-locks).

External warning and Lightning Lamps

Front Area



Rear Area



FUEL TANK CAP



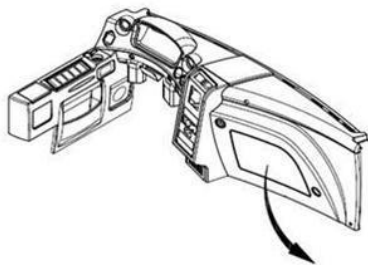
Fuel Tank Filler Cap Opening and Closing

1. To open, turn the cap slowly counter clockwise.
2. Fill the tank.
3. To close, turn the lid Clockwise.
4. Make sure that the cover is firmly closed.

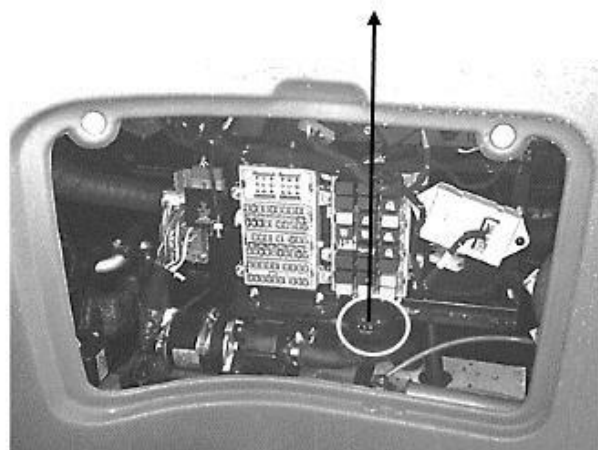


The fuel tank filling cap is not closed tightly, if it's a fire hazard leaking fuel while driving.

DIAGNOSTIC SOCKET

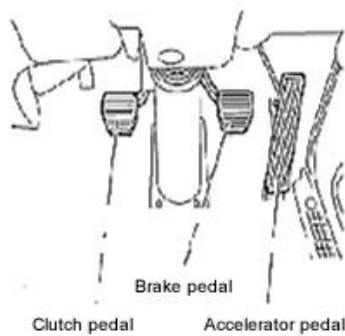


Diagnostic socket is located within the bottom cabinet of the glove box in the right section.



Fault diagnosis in engine control unit the engine control unit for reading the data that is contained in this socket connects to the diagnostic device.

PEDALS



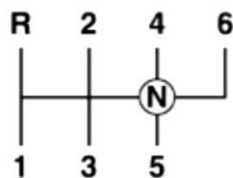
Rolling a tin can or bottle in place, if it gets stuck under the pedals, the brake operation can interfere with the operation of the pedals. This is a very dangerous situation. The mats should be placed accordingly. A mat which is placed incorrectly, it will prevent the smooth movements of each pedal.

GEAR LEVEL



A model with a manual transmission, push the clutch pedal completely when changing gear requires.

The gear shift lever to "R (Back)" position when it is moved to reverse turns on the lights.



ANTI-LOCK BRAKING SYSTEM (ABS)

During sudden braking or braking on slippery road surfaces such as a snowy road or the wheels can be locked and may shift. ABS, slip of the wheels during braking to detect and generate a situation that will prevent slippage of the vehicle the directional stability and the balance and handling is a system that allows you to. In slippery conditions ABS is only intended to help prevent an accident if you exceed safe driving speeds for road conditions designated.



- With ABS equipped vehicle, braking distances on slippery road surfaces, is longer than a dry asphalt road. Also, when the braking distance when the ABS is activated and gravel is covered with thick snow on the road may be slightly longer. Therefore, always the status of the road and the tyre (tire type and wear Status), Please remember to follow safe driving habits and the vehicle, an appropriate distance between other vehicles.
- All the wheels; the specific size with the same brand and same tread pattern (including winter tires) tires wear. If different tires are fitted, the braking distance becomes longer, and decreases the stability of the directional control of the vehicle. This is a very dangerous situation.
- During sudden braking (ABS is working) steering brakes will be applied slightly different than when applied. Use the steering wheel considering this condition.



The ignition key "ON" position when it is brought and the ABS warning light comes on after about 2 seconds and then goes out. If the warning lights turn off then ABS is in normal condition.

- While driving, if the ABS warning lamp illuminates
- The ignition key is "ON" position if they do not light up, then bring your

vehicle to the nearest Isuzu service.

If there is a problem with ABS, the brakes will continue to work properly. But ABS will not work.

ANTI SLIP REGULATOR (ASR)

ASR; the traction of the wheels while driving on slippery road surfaces to prevent slipping or otherwise, will help to improve the balance of the vehicle motion. ASR is engaged automatically when the engine is started. The use of ASR, using the key of ASR OFF you can cancel the option.



- while driving on a non-slippery road as in a dry road, if the ASR warning lamp left open,
- When ASR warning lamp flashes while driving (ASR off switch when not in use),
- When the ignition key "ON" mode and if the lamp does not light up,

ASR may malfunction, consult with the nearest Isuzu service. If ASR is defective, this does not prevent you from normal driving. But ASR will not work.

DIESEL PARTICULATE DISPENSER (DPD)

DPD clears the exhaust particulate matter (PM). DPD filter, and the filter captures and accumulates at a predetermined level of PM and especially when the PM combustion process of DPD (filter replacement) with automatically ejects.

Matters to be considered in the DPD:

- Use motor oil compatible with the DPD. Oil used in motor oil is compatible with any other DPD, DPD cleaning the filter will shorten the time between, and can lead to an increase in fuel consumption.
- Use extra-low sulphur diesel fuel (10 ppm. the value of non-with high sulphur content) or low sulphur diesel fuel (50 ppm. the value of non-with high sulphur content).
- Do not change any DPD or exhaust pipe. Changing the length or diameter of the exhaust pipe line; an exhaust emission reduction will have negative effect on the function of the exhaust system. For a piece to be fitted to the rear of the vehicle if required contact the nearest Isuzu service any changes.
- Filter DPD, the refresh operation does this automatically (although the burning of the accumulated pm), the PM accumulated a certain amount of time driving conditions, when you've completed the renewal process. In such a situation when manual refresh DPD indicator lamp will illuminate. In a refresh operation manual, carry out the appropriate procedure in a manner that is compatible with. DPD function to refresh this process normally.
- Of the filter during the regeneration DPD and DPD and after the use of the vehicle when the engine is running the exhaust pipe is very hot. Be careful about accidentally touching them. Otherwise you can burn.
- Vehicle turn off the engine and allow it to cool before performing maintenance.

DPD Manual Renewal Procedure

- Tool, not dry grass or flammable materials such as waste paper in a safe place where stop.
- A flat (manual) in the model, manual transmission, place the selector lever in "N" position and the make sure that the parking brake is unplugged.
- Idle the engine.
- If the AC is turned on, turn it off.
- Press the DPD key.

In your vehicle, the engine speed is automatically incremented to start the process when manual renewal of the DPD warning lamp in the instrument panel will stop flashing and will light up all the time.

Please do not leave the vehicle during the renewal process. The renewal process normally ends in 15 to 20 minutes.

DPD manual refresh warning light (dark yellow) turns off, or "MANUAL REGEN." (MANUAL REFRESH) message (dark yellow) goes when the refresh operation ends. After that, normal driving can be done.



White smoke may come off during the manual renewal process; you have to perform the refreshing operation indoors in poorly ventilated areas.

The Discontinuation of The Manual Renewal Operation

If you have to drive the vehicle and if you need to interrupt the renewal process, press the DPD key again.

If your vehicle does not have MID, warning light of manual renewal of DPD (dark amber) flashes. Then you can drive on. If the renewal operation is terminated, you must perform the operation again. Start the manual renewal operation from the 1.step and finish as soon as possible.

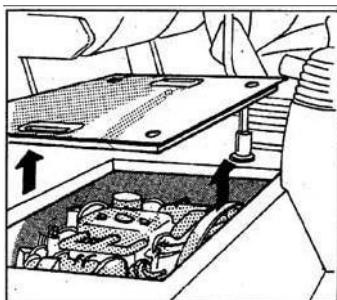
Automatic Regeneration of DPD



Engine speed may increase and the exhaust brake may activate when the vehicle is on stop while the engine is running on idle. When this occurs, the DPD automatically regenerates.

6. SERVICE and MAINTENANCE

ENGINE MAINTENANCE COVER



In order to open the cover of the engine;

1. Engine maintenance cover open with 4 locks on the cover screws by turning them counter clockwise.
2. open the cover of the engine for the engine maintenance by removing the holders holding the locks.

In order to close the engine maintenance cover;

1. Lift the engine maintenance holders in order to lift the lid. Make sure your locks are unlocked.
2. To lock the lid by turning the cover turn the 4 locking screw clockwise on the engine maintenance cover.

DAILY INSPECTIONS

Check the items listed below if they are safe and smooth operating for your vehicle.

Check if any abnormality occurs as a result of an abnormality during use, which are showed the previous components, take your vehicle to the nearest Isuzu service for the repair of your vehicle before you drive.

Abnormality during the previous operation control of the components

The fan belt looseness and damage
Engine oil level
Engine coolant level
Hydraulic steering wheel oil level
Brake fluid level and clutch level
Brake pedal gap
Clutch pedal gap
Operation of counters, gauges and warning /indicator lamps
Engine mobility, unusual sound and colour in exhaust gas
Handbrake lever stroke
Windshield wiper operation and the effectiveness of windshield washer liquid spraying
Windshield washer liquid level
The steering wheel gap and the mounting condition
Operation of horn and turn signal lamps
The remaining amount of fuel
Operation of door locks
Lighting, flashes, lights, dirt and damage of lamps
Accumulation liquid level
Oil, coolant, fuel, brake fluid, power steering oil, and HBB oil leak
Accumulation of water in the fuel filter (bottom)
Tire pressure
Tread Depth
Cracks and other damages
Wheel rim installation state
Brake activity

ENGINE OIL

Engine oil, engine performance and is an important factor in determining the time until it wears off. Use only the specified oil and oil filter. According to the maintenance schedule engine oil level should be checked and should be regularly changed.

Checking the Engine Oil Level

Park the vehicle on a flat surface, turn the engine off and check the motor oil level after 30 minutes. To check the oil level, remove oil dipstick, wipe off the tip with a clean rag, stick it in again and then gently remove it out.

If the oil level "Control Max" and "MIN" between the marks if the oil is at the correct level. Also check to see whether there are any oil leaks.

1. Remove the oil level dipstick and wipe the oil on the oil bar.
2. Insert the oil dipstick back in fully and then gently remove again. If the oil level "Control Max" and "MIN" between the marks if the oil is at the correct level.
3. The oil level is too low, see if there is any "MAX fill" mark to add oil. In the case which the oil level in the "control MAX" which means it is at the top of the level, change the oil.
4. Put the oil dipstick after checking the oil level.

Addition of Engine Oil

If the engine oil level on the bar is closer to the "MIN" mark, remove the oil filler cap and add oil. Meanwhile, remove the oil dipstick. Use only the specified engine oil.

- When adding be careful not to let oil drip. If you drip oil onto the engine, carefully wipe clean, otherwise it can catch fire and the blazing flames may spread.
- Do not place any flammable materials such as gloves or a rag in the engine compartment. These materials may catch fire.
- Engine oil after driving, it is hot, so after the ride when changing the oil, be careful not to burn.
- Prevent dirt from entering oil fill hole when adding. If foreign matter enters the oil, this could damage the engine.

Changing the Engine Oil and Oil Filter

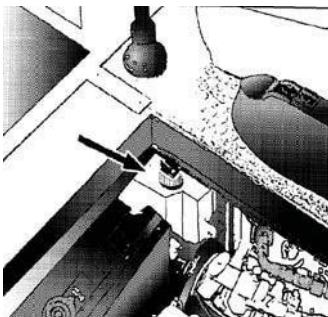
1. Clean around the oil filler cap to ensure that there are no foreign substances. Remove the oil filler cap.
2. Of the crankcase (tank) and place a container under the oil filter for oil collecting.
3. Remove oil pan drain plug to drain oil into the container (discharged oil must be stored in an environmentally responsible manner, and must be disposed of).
4. Use a special oil filter wrench to unscrew oil filter.
5. Lightly cover the new oil filter gasket with clean engine oil.
6. Put the oil filter on. The filter gasket will be installed after placed on the surface, with using a special oil filter wrench with the return of 1 1/4 (one quarter) to fasten.

7. Ensure that the oil pan drain plug are firmly compressed.
8. Remove the dipstick and fill the specified oil carefully from the oil filler cap.
9. Fit the oil dipstick by the oil filler cap. Have it filled with new oil again.
After 5 minutes, start the engine and leave it idling. When the engine is running at idle, check for oil leaks around the oil filter or the drain plug.
10. Stop the engine. Then, after waiting at least 30 seconds with the bar oil level check the oil level.

ENGINE COOLANT

- Check to fill again or replace the engine coolant is necessary only after the engine has sufficiently cooled.
- If the coolant is warm, do not open the radiator cap. Steam may be hot and can burn you.
- When removing the radiator cap or expansion tank cap, slowly turn the cap and use a thick cloth to cover the cover.
- Engine coolant is toxic and should not be taken by mouth. If the cooling fluid enters your eye, immediately wash your eyes with plenty of water.
- Engine coolant is flammable and therefore should be kept away from fire and other heat sources.
- Engine coolant should be replaced according to the maintenance schedule.

Checking the Level of Engine Coolant



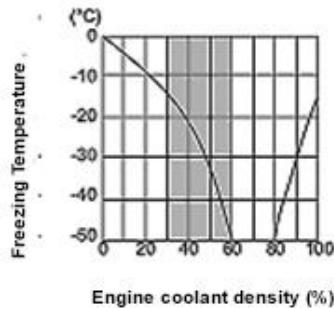
Expansion tank, is located under the engine maintenance cover. When the engine is cold, the fluid level in the expansion tank make sure you spot "MIN" is not below the line

Also checks to make sure there wasn't a leak from radiator or radiator hose. Check whether any liquid leaks or stain in the place where the vehicle is parked. Contact Isuzu service if you have a leak.

Preparation of The Engine Cooling Liquid

To protect the engine from freezing and prevent damage to the cooling system from corrosion, use a mixture of engine coolant and tap water. Only use a mixture of antifreeze and tap water appropriate density proposed by Isuzu.

Engine coolant density and freezing temperature



Isuzu genuine engine coolant when using coolant engine coolant should be between the percentage of % 30% and 60%. Less than 30 % when the coolant is rust prevention performance would be unsatisfactory, more than 60%, it can result in overheating. Temperate ambient temperatures of 30% engine coolant and 70% use water mixture.

Isuzu genuine engine coolant (from the product that is specified by Isuzu) is used when a different engine coolant;

External ambient temperature -40°C is higher than the value when; 50 % of engine coolant, and 50 % tap water,

When external ambient temperature is -40°C or lower: Use a mixture of 60 % engine coolant and 40% tap water.

Adding the Engine Coolant

Engine coolant level in the expansion tank to the “min” line below when you open the lid of the tank, and the tank “Max” next to the line and fill with tap water until the engine coolant mixture at the appropriate intensity. Again, after filling coolant, fasten the cap securely.

Changing the Engine Coolant

Also, when changing the engine coolant, the radiator cap, make sure the radiator and the coolant channels are clean.

Evacuation of cooling system:

1. Before you begin the process, make sure the engine is completely cold.
2. Remove the radiator cap.
3. Cool the engine coolant in the radiator and open the drain plug to get the fluid out.
4. Switch off the coolant in the radiator to the drain plug.

5. Ensure that the oil pan drain plug are firmly compressed.

Filling of the cooling system:

1. Before you begin the process, make sure the engine is completely cold.
2. Remove the cover and radiator fill the radiator with coolant up to the top of the filler hole. The cooling fluid in the air intake before putting the plug, remove the tube from the water outlet. Replace the air intake plug gasket with a new one. After filling the coolant and air intake, fasten the plug fully.
3. Fasten the upper radiator hose two or three times. This motion leads to draining the air from the hose and if the engine coolant level drops, add coolant up to the top of the filler hole of the radiator.
4. Install and attach the radiator cap securely.
5. Fill the expansion tank until it's on "MAX" fill line with coolant. Replace the expansion tank cap.
6. Switch off the water exit the pipe plug in the air intake.
7. Start the engine, leave to idle for 2 or 3 minutes, and then stop the engine.
8. After you are sure that the coolant no longer is not hot, open the radiator cap. If you manage to drop the coolant level of the radiator fill coolant through the filler hole again. If the coolant level is abnormally low; check for leaks in radiator, in the hose or expansion tank in the engine cooling circuit.
9. After tightly closing the radiator cap, warm up the engine to 2,000 rpm. run at RPM.
10. When you reach the middle point of the indicator of the engine coolant temperature, leave the engine at idle mode at an idle speed for 5 minutes and then stop the engine.
11. After you are sure that the coolant no longer is not hot, open the radiator cap, check coolant level and if necessary, fill the coolant through the radiator filler hole. If the coolant level is abnormally low, check for coolant leaks.
12. Shut the radiator cover tightly.
13. Fill up until the cooling fluid in the expansion tank is on "MAX" line again and then close the cover of the expansion tank.

radiator core cleaning:

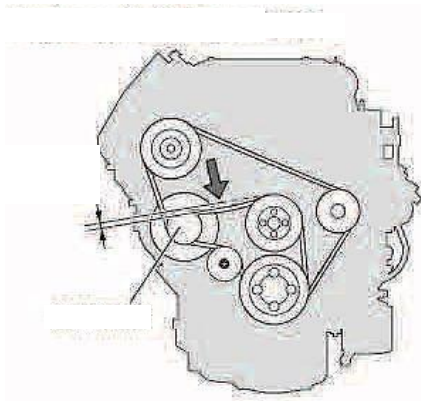
When there is dirt or dust from clogging the air channels in the radiator core, the cooling efficiency is compromised. This also causes radiator core to wear out. Wash the radiator core periodically with water.

Cleaning of the coolant channels:

1. Remove the radiator cap and fill the radiator with tap water. Take the air intake plug out before filling the coolant, remove the water outlet from the tube. After filling the water, fully fasten the air intake plug.

2. Check the radiator cap and clean it. If the cover is damaged, replace it.
3. Install and attach the radiator cap securely.
4. Fill the expansion tank until it's on "MAX" line with tap water
5. Replace the expansion tank cap.
6. Start the engine and leave it idling for 20 minutes. Stop the engine, wait until it cools off, and then discharge the water.

FAN BELT



Your engine used on the V - ribbed fan belt strain ordinary V-belt) according to the required set up correctly. Improper strain, the sound came from the belt, or can cause the belt to tear apart. The fan belt is damaged, this can be a cause of electrical or overheating the engine will be properly generated. The belt strain must be carefully controlled.

When replacing the fan belt, use the Isuzu's original parts. To adjust belt strain:

1. Loosen the belt strain and loosen the lock nut of the mechanism.
2. Setting the belt strain with the right adjustment
3. When you set the strain, securely fasten the lock nut of the belt to the strainer mechanism.

Replacing the belt:

1. Loosen the belt strain and loosen the lock nut of the mechanism.
2. Loosen the adjustment bolts and the belt from the pulleys and remove it.
3. Loosen the adjustment bolts and the belt from the pulleys and remove it.
4. Insert the new belt through the opening in the fan pulleys and attach the strap by passing the channels by aligning with channels.
5. Turn the bolts and be sure to make adjustments for the belt strain until it is within the standard range.

6. When you set the belt strain, securely fasten the lock nut of the belt to the strainer mechanism.

AIR FILTER

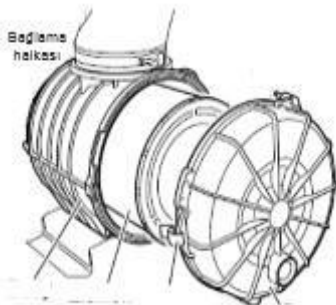
Cleaning the air filter

Remove the air filter component and check if its clean or not. If it is not clean, without taking the changing schedule change the component.

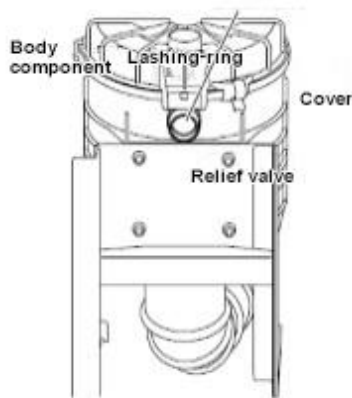
1. Remove the 3 connection rings and remove the air filter cap.



2. By pulling it to yourself, remove the air filter.



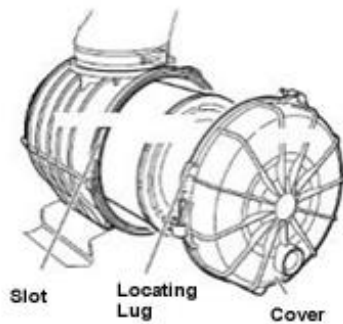
3. Clean the dirt of the air filter in and out.
4. Clean the drain valve under the air filter.



5. Put the filter component back into its position in the air filter bearing.



6. Align the slot on the left side of the housing with the retaining tang on the cover. Put the 3 connection rings back and fix the cap.



Cleaning of Air Filter Component

When the dust sticks to the filter component;

Rotating the filter component toward the inside of the filter component in order to remove dust maximum, apply compressed air up to 690 kPa (7,0 KGF/cm²/100 psi). Check whether there are any damages on the filter component.

When the filter component is blackened with oily smoke or other substances;

The filter component, leave it for about 30 minutes in a mixture of water and neutral detergent, remove the detergent solution and then rinse using water from the tap. After cleaning, leave the filter component in a well-ventilated place to dry spontaneously for a while.

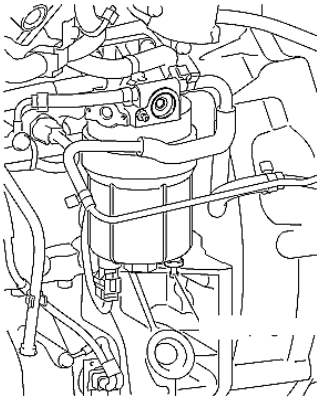
FUEL FILTER

Change the fuel filter in accordance with the maintenance schedule.



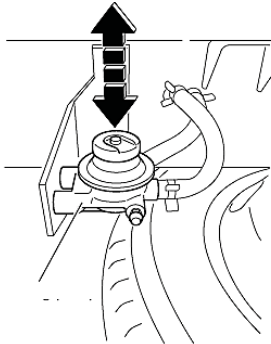
A certain amount of water accumulates in the water separator when the water separator (fuel filter) warning light comes on. Evacuate the water.

Draining the Water From Fuel Filter



1. On the engine side of the fuel filter and connect a hose into the drain plug at the bottom of the plastic filter placed under the other end of the hose that is put into a container.

2. Loosen the drain plug by hand, move the hand pump and move it up and down 10-20 times.



3. Fasten the drain plug with the hand pump completely and move a few times.
4. Try to run the engine, on the side of the chassis and the engine side of the fuel filter check that if there is a fuel leak from the drain plug.

Control and Cleaning of DPD

Exhaust pressure will be conducted in accordance with the service maintenance program for Isuzu, according to results of the check, the filter may need cleaning.

Each year, make a pressure sensor that detects congestion within the DPD for a 0 point adjustment.

After cooling to ambient temperature, the pressure difference sensor, the pressure sensor zero-point calibration of carry out.

After DPD refresh operation, wait at least 2 hours before zero point calibration

In addition, each DPD after every DPD inspection or cleaning the filter, be sure to make differential pressure sensor adjustments according to the following procedure:

1. The ignition key "ON" (ON) position to turn. Leave in this mode for a while. (Do not start the engine)

2. Automatic renewal DPD warning light and a manual DPD renewal warning light should be illuminated sequentially.
3. Manual refresh auto refresh DPD within 30 seconds the warning light should turn off and the warning light.
4. Turn the ignition key to "OFF" (CLOSED) position and leave in this position for 15 seconds.

DRUM BRAKES

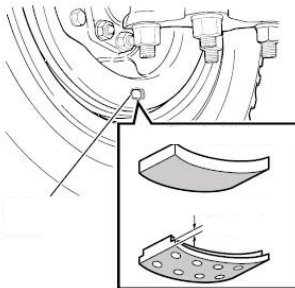
Brake shoe linings are available in the case of the limit of wear on; braking performance is reduced; the brake components may lead to malfunction.



Do not ride with worn out brake shoe pads over the limit.

Brake Shoe Pads

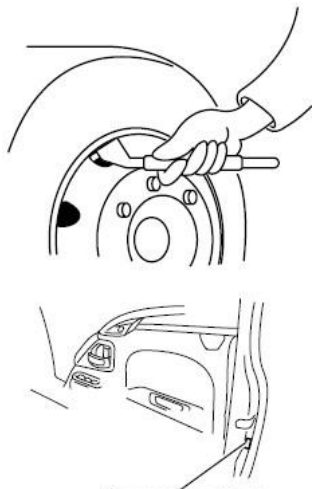
To be checked against the brake shoe linings to wear out



1. Remove the rubber plug from the hole to support plate for the control.
2. Check whether there is sufficient thickness of brake shoe linings. Also, the side surfaces of the pads, cracks, or other damage inspect for spalling.
3. The brake shoe linings wear limit of 1 mm thickness is pasted. When the limit value falls below 1 the pads wear out and, the shoe is worn from time to time. The brake lining wear surface cracks or flaking or if you have side abrasions above the limit, they should be changed. The change process must be made in the closest Isuzu service.

CHECKING THE TIRES

Air pressure



Tire pressure affects the ride too low or too high temperature increase and abnormal, premature wear, and even may cause the tire to puncture and the tire to explode.

When measuring air pressure in a tire, proper tire air pressure gauge (manometer) should be used. Tire pressure should be measured when the tire is cold or the vehicle before driving. (After driving, the tire air pressure increases approximately 10%.)

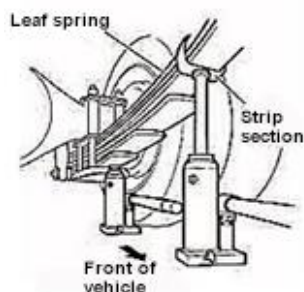
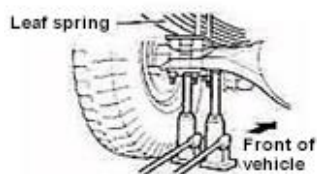


Always keep your car tires air pressure is set in the standard way. Inspect for cracks or other damage in the back and on side surfaces of each tire. Especially inspect the back section with nails or other metal parts embedded in the cavities.

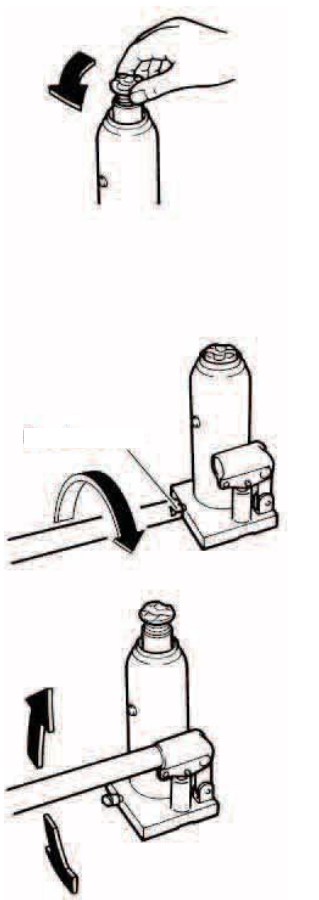
Usage of the Jack

In top mounted leaf spring suspension model, apply the jack to the bottom of the axle.

In bottom mounted leaf spring suspension model, apply the jack to the lower part of the leaf spring or to the strip-section rivet on the front of the vehicle.

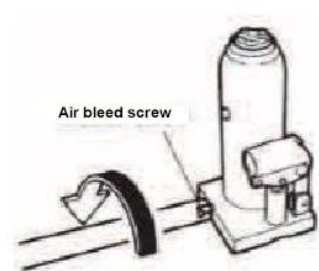


Lifting the Vehicle



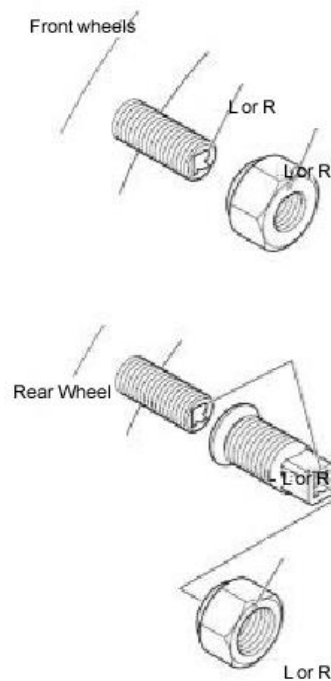
1. Place the jack directly under the Jack point and make sure it is straight. Jack; should be placed on a flat, hard surface.
2. Turn the jack to extend the length of the upper part of the point. Turn counter clockwise to lengthen.
3. Insert the Jack arm into the socket. Use the bleed screw fully clockwise to rotate the notched end of the crank before removing the Jack.
4. Jack slowly move up and down slightly to lengthen his arm.
5. Make sure that the jack is in full contact with the Jack point, and then make sure to move the vehicle and continue.



Landing the vehicle



1. Crank three U-shaped air bleed screw to align with.
2. Slowly turn the bleed screw counter clockwise
3. When vehicle is fully lowered, turn the bleed screw clockwise until the end.
4. Turn the jack lever fully clockwise.

Replacement of Tires



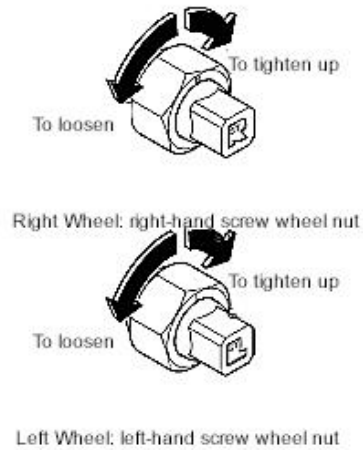
Each stub or on the Right Side Nut “R” or “” marked “or nut on each stub and the left “L” or “” is marked.

- Replace the tire on a flat hard surface.
- When changing a tire on the road, please park your vehicle so that traffic is not blocked.
- Make sure that the other vehicles are aware of your presence, use the hazard warning flashers and a warning triangle if necessary.
- Pull the handbrake completely.
- Take out all the passengers from the vehicle.

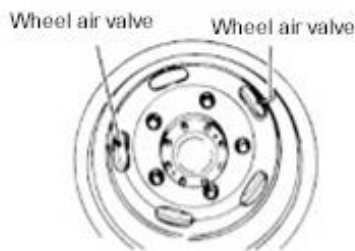
Dismantling the wheel

1. When changing a front wheel, place a wheel chock under the rear wheel diagonally opposing the front. When replacing a rear wheel, place a chock under the front wheel which is diagonally opposing rear wheel.
2. Insert the upper portion of the Jack, the jacking point (removal) firmly. Remove the tire from the ground so that they will not get exactly lift the vehicle.
3. Using a wrench, loosen the lug nuts until the wheel will just stay fixed in place. Do not remove the wheel nuts yet.
4. Lift the car jack until the wheel is completely lifted.
5. When all are loosened, unscrew the wheel nuts, and then unscrew the wheel. Unscrew the wheel while being careful not to damage the threads of the stub.
6. When trying to remove one of the rear dual wheels, first remove the lug nuts and remove the wheel from the outer wheel. Then, loosen the wheel nuts and lower the vehicle.
7. Lift the vehicle and then unscrew the Inner Wheel.

8. The rim, distortion, and damages such as cracks, wheel hub, installing excessive wear on the surface of the wheel, Check whether. There are any damages on tooth wheel nuts with stubs If an abnormal condition is found, in a part or in the other parts check and replace the damaged parts with a new ones.



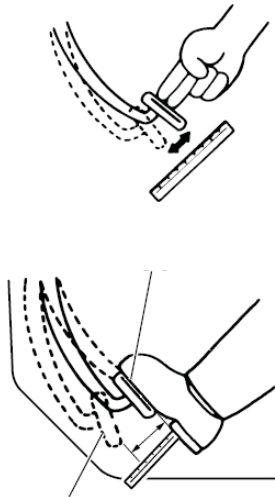
Installing the wheel



1. Put the wheel while the stub holes on the rim and when you align them with stubs. When installing the rear wheel, the outer wheel to allow the swell of the inner and outer tires tyre wheel valve 180 degrees of the inner air out.
2. The lug nuts each wheel nut by turning it by hand until it contacts the seating surface of the fasten then all the wheel nuts with fingers until it clicks into their places, fasten the wheel without any looseness. The tapered end of the wheel nut to the inner side of turn.
3. Slowly turn the bleed screw counter clockwise with the Jack to put the vehicle down.
4. Fasten the wheel nuts and the bolts in a diagonal sequence in two or three in transition. When installing one of the rear wheels, first tighten the nuts of the inner wheel and then the nuts of the outer wheel.
5. Fasten all wheel nuts using a torque wrench, to specified torque.

Front wheel nut		Rear wheel nut	
Torque rating	Amount	Torque rating	Amount
441 - 539 N·m (45 - 55 kgf·m)	8	441 - 539 N·m (45 - 55 kgf·m)	8

CHECKING THE CLUTCH PEDAL



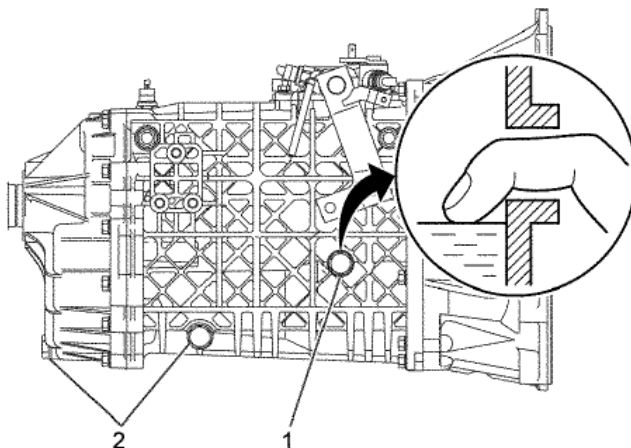
1. Press the clutch pedal with your hand slowly until you feel slight resistance. Up to this point the distance movement of the pedal, is the pedal gap.
2. Pull the handbrake completely. Leave the engine on the idle mode while pressing on the clutch pedal completely.
3. Bring the selector lever to 1st gear and then slowly release the pedal. From fully in the pressed position to the clutching position there is a distance of 20 mm or more it is normal for the clutch pedal.

Additionally, make sure that you grasp the clutch when the vehicle slowly starts to move properly without missing.

TRANSMISSION OIL

Change the gearbox oil according to the maintenance schedule.

Gearbox checking the oil level



1. Level plug.
2. drain plug

1. Remove the oil level plug.
2. The oil level can be checked to see whether it is in the line of the lower edge of the plug hole. The correct oil level plug near the bottom of the hole level range is 0 to 10 mm. And (0 and 0.39 in.) are among. If the oil level is too low, add oil through the oil level plug hole.
3. Attach it to the specified torque oil level plug, oil level plug tightening torque is 39 Nm.

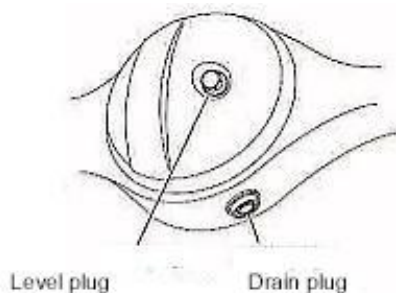
Also check to see if any transmission fluid is leaking.

Changing the oil

1. Place a container beneath the drain plug for the oil.
2. Remove oil level plug and drain plug to drain oil into the container together.
3. Compressing the drain plug to specified torque (tightening torque of the drain plug 39 Nm) after inserting the gearbox with new oil through the oil level plug hole, the bottom edge of the hole to fill again.
4. After re-filling the oil, check to see whether the oil level reached the lower edge of the level plug hole.
5. Oil level plug to specified torque compressing them to wear.

REAR AXLE DIFFERENTIAL GEAR OIL

Rear axle differential gear oil change according to the maintenance schedule



1. Place a container beneath the drain plug for the oil.
2. Remove the plugs to drain oil into the container.
3. 78.4 Nm of torque the drain plug after inserting a value in compressing; rear axle differential oil level with new oil through the plug hole, re-fill the hole right up to the bottom edge of plug hole.
4. Re-filling the oil level after the oil level control to the lower edge of the plug hole is coming up.
5. Compress oil level plug torque value of Nm 78.4.

POWER STEERING OIL

Power steering oil should be replaced according to the maintenance schedule.

Checking the Hydraulic Steering Wheel Oil Level

Oil level in hydraulic oil container must be between the “MAX” and “Min” lines. If the level of the “MIN” line is below then add more oil until the “MAX” line.

The hydraulic oil container is located in the rear of the engine compartment on the right. After checking the oil level and the cover the tap securely.



- Before adding oil, clean the area around the tap and the muslin bag or from a clean water bowl.
- Recommended hydraulic steering wheel oil should not be mixed with oils of other brands. Due to chemical reactions, a mixture of different branded oils may cause malfunction to the system.

Replacing Power Steering Fluid

Discharging

1. Apply the parking brake and chock the rear wheels in place.
2. Insert the upper portion of the Jack, the jacking point (removal) firmly.
3. Lift up the front wheels until the vehicle is completely lifted from the ground.
4. Hydraulic oil hose between oil pump and oil next to the container at the same time, the steering units and hydraulic oil remove the oil pipe between the container pour oil and power steering.
5. Power steering fluid is completely empty when the remaining oil in the piping is to remove the steering wheel left and right a few times to end the turn.

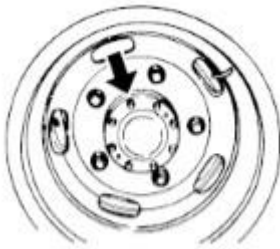
Refilling

1. Securely reinstall the oil pump and the oil hydraulic oil power to steering fluid with the hose and then fill the container again.
2. After filling the container with oil up to specified oil level hydraulic oil level to stoop low and wait around 2 to 3 minutes.
3. Without the starting the engine, turn the steering wheel in either direction several times.
4. Land the vehicle and start the engine. When running the engine at idle, turn the steering wheel fully both ways a few times. If you hear abnormal noises when turning the steering wheel, power steering, it means that air remains in the system.

To pull the air out of the system, follow these steps:

1. In order to remove the remaining air from the system oil by increasing the temperature; turn the steering wheel in both directions several times until the end. Raise oil temperature from 60 to 80°C. When it rises, stop the engine and wait approximately 5 minutes for the high temperature of the air dissociates from the oil collection.
2. Check the oil level in the hydraulic oil container and also against leakage at the joints.
3. When you turn the steering wheel in a comfortable way, and in order to check if there are any abnormal sounds when turning the steering wheel, do a test drive on the road.

HUB UNIT GREASE OIL



To replace the grease front and rear bearing disassembly and re-assembly processing is required since these operations must be made in the your Isuzu service.

CHASSIS COMPONENTS LUBRICATION WITH GREASE

The type of grease used in the specified chassis components (properties) is different from the type specified to be used in another components. For each component, use only the specified grease and lubrication according to maintenance schedule.

Grease universal joints of each drive shaft, 4 needle bearing oil seal should be lubricated excessively. After oiling with grease, wipe the leftover grease.

WINDSHIELD WASHER WATER

Check the level of windshield washer water in the tank.

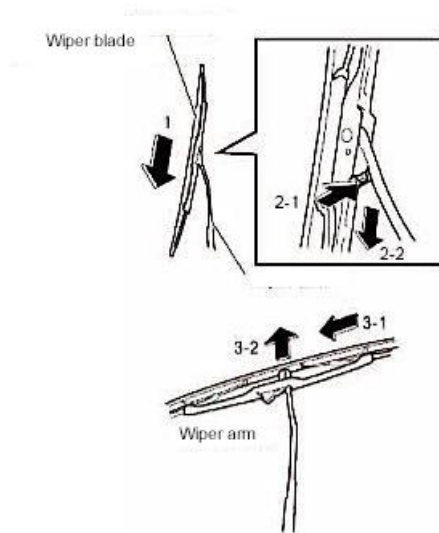
Filling Up Windshield Washer Water

1. windscreen washer water tank is located on the left side of the front side of the vehicle accumulator cupboard.
2. Open the lid and the tank to the brim and fill it up with windshield washer water.

WINDSHIELD WIPER BLADES

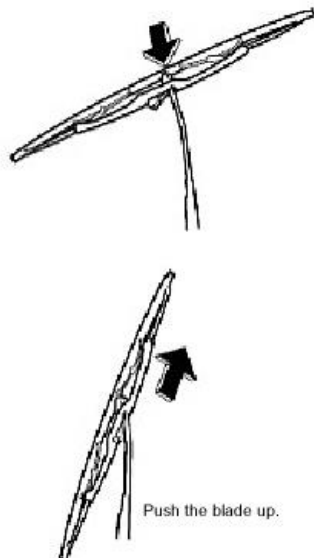
Changing the Windshield Wiper Blades

Dismantling Process



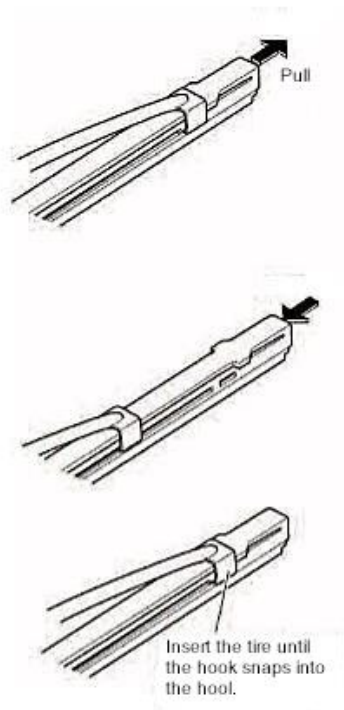
1. Pull the wiper arm up in the vertical direction.
2. Slide the squeegee hook down while pressing the wiper blade hook towards the lever.
3. Remove the broom part from the arm section when they are in an almost upright position.

Installation



1. Install the broom part while holding the broom handle in an almost upright position.
2. With both components directed in the same position, insert the broom part until its fit.

Wiper blade bearing replacement



Dismantling Process.

1. Remove the wiper blade from the wiper arm.
2. Pull the wiper blade bearing onto the wiper blade in the direction indicated by the arrow and remove it from the wiper blade.

Instalment

1. Install a new wiper blade bearing on the wiper blade.
2. Continue pushing the wiper blade until the hook of the wiper blade engages in the hole. Make sure they are safely fit.
3. Install the blade wiper on the arm part.

ACCUMULATOR USE

Accumulators are located ahead of the left front wheel in the left front luggage. Keep the accumulator clean. If the accumulator is left in a dirty state the wastes might mix into the accumulator water. Accumulator battery plates may be damaged and battery life may be reduced as a result of this.

When Performing Inspection or Maintenance

Before beginning inspection and maintenance of other parts of the battery and the electrical system the ignition key to the "LOCK" (LOCKED) position all other switches to "OFF" (OFF) position move to the opposite poles of the battery and the negative cable.

Removing the Battery

The batteries are to be removed when you remove the battery cable from the negative pole first. If the battery cable is connected to the negative pole, the positive pole of the instrument with any contact between the fairing and made with dangerous electrical shock can cause a short circuit. Also the electrical system can be damaged.

Accumulator Charging

- Before charging the accumulator, remove the battery from the vehicle and remove the titles of your accumulator in a well ventilated place. If the accumulator is to be charged in the vehicle, first remove the accumulator cables.
- When a charger is connected to the accumulator or plugged off of it, make sure that they are turned off afterwards.

- When performing rapid charging process, the accumulator cables must be removed each time. Failure to implement these measures can result in combustion of the generator.

Installing the Accumulator

1. The direction of inserting the accumulator in your vehicle are securely attached without looseness and ensure that is set correctly. If the accumulator is not connected correctly, as a result of shaking during driving, the battery box and the battery can damage the plates.
2. When connecting the accumulator cables, start with the positive pole, and then connect one lead to the negative terminal.

Checking Accumulator Water Level

Remove accumulator cover and check whether the accumulator box is within the specified water level between specified gaps. The accumulator level of the surface of the water, should be between the lines of the “TOP-LEVEL” and “LOWER LEVEL”.

The mark on the box if it doesn't have any specified level, the battery starting from the top of the plates, 10 and 15 mm. of gap is seen as appropriate for the level values.

Filling Of Accumulator Water

If there is an insufficient amount of accumulator water in the accumulator, remove the cover and tap, and then the surface level, the “TOP LEVEL” comes close to the mark or from the top of the accumulator plates 10 and 15 mm add distilled water until it is within the range of values. Once you have finished adding distilled water, the tap and attach the accumulator cover securely.

- If the accumulator water “LOWER LEVEL” below the line when you use the accumulator, or accumulator charging; and the production of heat accelerates deterioration can lead to even dangerous situations, such as explosion.
- If accumulator liquid contact with eyes occur, wash immediately using plenty of water.
- The battery is located in the area where tools or metal objects when using them be careful to prevent contact with the positive pole. Powering the vehicle forward spontaneously for this type of contact, a short circuit may cause electric shock and highly dangerous.
- A car battery produces hydrogen gas which is highly flammable. For this reason, operations that require the use of naked flame or sparks thus should not be done near the vehicle accumulator.
- If you want to check the accumulator, always stop the engine.
- Diluted sulphuric acid is used as accumulator water. Be careful to make sure you do not touch the liquid with your skin, clothes, or any other contact with metal surfaces.
- When removing the wires from the poles, start with the negative pole. But while putting negative pole must be installed first.
- Accumulator water never should not be filled up to the top of the line of “TOP LEVEL”. Otherwise, because of the accumulator water loss, and other components may cause corrosion of the accumulator terminals. Spilled accumulator acid should be cleaned immediately with water.
- After adding accumulator water, the accumulator should be re-charged (with driving). If you don't recharge the accumulator during the winter months accumulator water may freeze in the accumulator box the accumulator can be damaged.
- If the water level continues to fall rapidly so that the accumulator which can occur rarely, contact the nearest Isuzu Service for your vehicle to be treated with care.

Maintenance Data

For safe and economical driving, we recommend you the regularly, according to the schedule specified in this section for the maintenance and control of your vehicle, For dismantling and/or controls that require special equipment, contact your Isuzu service .

Maintenance Program

I : Control, cleaning or maintenance or changing when necessary

A : Adjustment

R : Replace

T: Tightening in specified torque level

L : Oiling

Periodic Maintenance Space x1,000 km	20	40	60	80	100	120
ENGINE						
Engine oil	R	R	R	R	R	R
Engine oil filter	R	R	R	R	R	R
Fuel filter	R	R	R	R	R	R
Air filter component	I	R	I	R	I	R
Idle speed and acceleration	I	I	I	I	I	I
Valve clearance	-	A	-	A	-	A
Fuel filler cap and fuel pipe line	-	I	-	I	-	I
Drive belt tension and damage	I	I	I	I	I	I
Engine coolant	-	I	-	I	-	I
Exhaust pipe, brake and connections	I	I	I	I	I	I
Engine usage conditions	I	I	I	I	I	I
CLUTCH						
Clutch hydraulic	I	R	I	R	I	R
Clutch, gas and brake pedal stroke	I	I	I	I	I	I
GEARBOX						
Gearbox oil	I	R	I	R	I	R
Gear lever mechanism	-	-	I	-	-	I
Gear lever cables	A	A	A	A	A	A
AXLE						
Universal joint and sliding milling	L	L	L	L	L	L
Loose Connection	I	I	I	I	I	I
Abrasion of shaft mill	-	-	I	-	-	I
Middle side bearing	L	L	L	L	L	L
REAR AXLE						
Differential gear oil	I	R	I	R	I	R
FRONT AXLE						
Kingpin (Fixed front suspension model)	L	L	L	L	L	L

Periodic Maintenance Space x1,000 km	20	40	60	80	100	120
STEERING WHEEL						
Hydraulic steering wheel oil leakage	I	I	I	I	I	I
Hydraulic steering wheel oil	-	I	-	I	-	I
Hydraulic steering wheel connection control	I	I	I	I	I	I
The connection between ball joint and spindle wheel	I	I	I	I	I	I
Steering wheel gap	I	I	I	I	I	I
Steering wheel function	I	I	I	I	I	I
Front end alignment	-	I	-	I	-	-
Hydraulic steering wheel hose	-	-	I	-	-	-
BRAKES						
Brake fluid	I	R	I	R	I	I
Oil leakages	I	I	I	I	I	I
Brake shoe lining and drum abrasion	I	I	I	I	I	I
Disk brake lining and disk abrasion	I	I	I	I	I	I
Pedal stroke and gap	I	I	I	I	I	I
Controls of brake pipes and hoses	I	I	I	I	I	I
HANDBRAKE						
Handbrake Cable	I	I	I	I	I	I
Operation of handbrake	I	I	I	I	I	I
Handbrake lever gap	I	I	I	I	I	I
Handbrake lining abrasion	-	I	-	I	-	I
Hand braked drum abrasion	-	I	-	I	-	I
Handbrake locking latch abrasion	-	I	-	I	-	I
SUSPENSION						
Spring leaves	I	I	I	I	I	I
Spring connections	I	I	I	I	I	I
Shock absorber oil leakage	I	I	I	I	I	I
Shock absorber connections	I	I	I	I	I	I
WHEELS						
Studs and wheel bolts	T	T	T	T	T	T
Tire pressure	I	I	I	I	I	I
Wheel hub bearing	-	L	-	L	-	L
ELECTRIC						
Accumulation fluid specific gravity	I	I	I	I	I	I
Lamps, horn, wipers and washer	I	I	I	I	I	I
OTHERS						
DPD filter pressure and filter cleaning	I	I	I	I	I	I
DPD differential pressure sensory wheels	I	R	I	R	I	R
Chassis and gear nuts and joint bolts	-	I	-	I	-	I
Emptying the condensation tank	I	I	I	I	I	I
Air Dryer filter change	I	R	I	R	I	R

RECOMMENDED FLUIDS, LUBRICATION SUBSTANCES AND DIESEL FUELS

The election of the correct lubricants and diesel fuel your vehicle is important in order to show the best performance of Isuzu for many years. Use the products specified for your vehicle lubrication according to the maintenance schedule. The following lists the recommended lubrication use the ones specified in the maintenance program. The oil change intervals specified in the maintenance program and the validity of the new vehicle warranty; lubrication products from the list below accepts.

OILING	LEVEL			OILING VISCOSITY
	API	ACEA	JASO	
DPD (low ash oil) with diesel engine crankcase		E6 E6 E6 C3	DH-2 DH-2	10W-40 10W-30,40 10W-40 10W-40 10W-40 5W-40
Manual transmission	SG CD/CE/CF/CI -4 SJ/CF CD/CE/CF CD/CE/CF CI-4 CI-4	E3/E5 A3/B3	DH-1	5W-30 15W-40 15W-50 15W-40 15W-40 15W-40
Clutch hydraulic				DEXRON III
Differential	GL-5 GL-5 GL-5 GL-5 GL-5 GL-5 GL-5 GL-5			80W-90 80W90,85W140 140 90 80W-90 80W-90 80W-90 80W-90

OILING	LEVEL			OILING VISCOSITY
	API	ACEA	JASO	
Differential (Limited Sliding differential)	GL-5 GL-5 GL-5 GL-5 GL-5 GL-5			140 90 90 90 85W-90
Hydraulic steering wheel Additional Hydraulic Brakes				DEXTRON III
The central bearing axle pins (multi-purpose grease)				NO. 2 NO.
Sliding the drive shaft universal joint fork (that contains molybdenum disulphide multi- purpose grease)				NO.2

DIESEL FUEL / APPLICABLE STANDARD	
Japanese Industrial Standards	The Standard Is Based On K2204 Diesel Fuel
German industrial Standards (DIN)	The standard is based on EN590 : 1997
SOCIETY OF AUTOMOTIVE ENGINEERS (SAE)	SAE J-313C based on the standard
Turkish Standard	The standard is based on EN590 : 1197

Diesel fuel / applicable standard (sulphur content below 50 ppm)	
Japanese Industrial Standards	The Standard Is Based On K2204 Diesel Fuel
German industrial Standards (DIN)	The standard is based on EN590 : 2004
American Society for testing and materials (ASTM)	D975-04c NO.1-D S15 or NO.2-D S15 Based on the standard (15 ppm below)
Turkish Standard	The standard is based on EN590 : 2004

TROUBLESHOOT

Regularly check-ups and maintenance prevents damage to the vehicle.

In the following table in accordance with the corrective action table carry out the symptoms if it happens. As shown in the table, or if the corrective action does not resolve the problem if the deficiency cannot be determined from the location of the nearest Isuzu service.

Corrective action in the column an “O” mark is need repairs or adjustments to any element. Contact the nearest Isuzu service.

Indication		Cause	Corrective Action
	The starter motor is not turning or weak.	Empty accumulators	Re-charge the accumulator or replace it
		Has increased to the terminals of the accumulator, loose or rusted	After correcting their heads firmly connect the rusty part polar
		Of the chassis the starter motor terminal the cable has been loose or rusted	After correcting their heads firmly connect the rusty part polar
		Motor oil viscosity is very high	Replace with proper viscosity oil
		The electrical system or the starter engine is malfunctioning	○
	The starter engine is running	No fuel inside	Make sure there not a fuel leak, and then put the fuel
		There is air in the fuel system	Pull the air out of the fuel system
		The fuel filter is clogged	Change the filter
		Fuel is frozen	Warm the fuel pipe with hot water and wait until the fuel line or the fuel gets warmer
		The common rail system malfunctioning	○
		Pre-heating system	○
Motor runs, but immediately stops	The idling speed is very slow	Adjust idling speed	
	The fuel filter is clogged	Change the filter	
	The air filter is clogged	Clean or replace the component	
	The common rail system malfunctioning	○	
Non-constant motor speed	There is water in the fuel or there is air in the fuel system	Pull the air out of the system	
	Fuel system is malfunctioning	○	

Indication	Cause	Corrective Action
White or black exhaust smoke is coming out	The engine is warm enough	Make sure you warm up the engine enough
	Filling excessive amount of engine oil	Proper the oil level
	The air filter is clogged	Clean or replace the component
	Fuel system is malfunctioning	○
	DPD malfunctioning	○
Engine is overheating	There are no coolant left	Add coolant
	front of the radiator is clogged with dirt	Clean with a soft bristled brush
	The radiator cap has not been compressed properly	Make sure it is fully compressed
	Fan belt is loose	Adjust the strain or replace the belt
	Coolant is dirty	Clean the inside of the radiator or replace the cooling fluid
	Fan clutch	○
	The radiator cap is either damaged or dirty	Clean or replace it
Low oil pressure	Improper engine oil viscosity	Replace with proper viscosity oil
	Engine oil level is too low	Add engine oil
	The components in the engine are	○
	Counter, indicator/warning lamps or switches are malfunctioning	○

Indication	Cause	Corrective Action
Insufficient engine power	Handbrake have not been fully released	Make sure it is fully released
	Brakes are drifting	○
	Grabbing of clutch	Adjust the clutch gap
		Add the clutch hydraulics.
	The air filter is clogged	Clean or replace the component
	The fuel filter is clogged	Change the filter
	The engine control system failure	○
	The common rail system malfunctioning	○
	Engine malfunctioning	○
	DPD clogged	○
Brakes are not effective	Drum-lining range is huge	○
	There is air in the brake hydraulic	○
	Brake system malfunction	○
Unbalanced braking	Uneven air pressure in the tires	Adjust the proper air pressure
	Of uneven abrasion of the tire	Change the tires
	Uneven range between wheels and drums- lining	○
	Bad wheel tune	○
The exhaust brake does not work	The electrical system is malfunctioning	○
Turning the steering wheel is hard	Load put in the front is a lot	Put the load suitably
	Hydraulic steering wheel oil level is too low	Add oil
	The air in the front tires are insufficient	Adjust proper inflation pressure.

Indication		Cause	Corrective Action
There is excessive space in the steering wheel		Tire pins and the wheel nut are loose	Compression to the specified torque
		Uneven swelling pressure in the tires	Adjust proper inflation pressure.
		Uneven tires	○
		excessive space in the steering wheel	○
Steering wheel is not turning fully.		Steering mechanisms are not properly lubricated.	Lubricate the mechanism
		Bad wheel tune	○
The clutch will not disengage fully		Insufficient clutch hydraulics	Add oil
		Excessive clutch pedal space	Adjust the appropriate level
Noise or abnormal sounds	Transmission	Insufficient transmission oil	Add oil
		The internal components of the transmission is malfunctioning	○
	From the differential gear	Insufficient differential gear oil	Add oil
		The internal components of the differential is malfunctioning	○
	From the suspension	Spring pins, shackles, or stoppers are worn out	○
	From the drive shaft	Each component is not properly lubricated	Lubricate them
		Milling channels or the bearings are worn	○

If the Engine Stops While Driving



If the engine stops while driving, the supplement brake doesn't even try to operate, the brake effectiveness will decrease. If the engine does not run, go to the nearest Isuzu service. Due to running out of fuel of the vehicle while driving, the engine stops and the engine is unable to run again, only refuelling will not be enough. After refuelling the vehicle, pull the air out of the system.

Running out of fuel



If you run out of fuel, there will be air in the system, so the engine cannot run again, only refuelling will not be enough. In order to pull air from the system apply the following.

Pulling Air Out of the System

Before running the engine

1. Place a container beneath the drain plug to get the fuel pull screw the plug completely and then loosen.
2. Hand pump the air bubbles from the fuel by the plug by moving it up and down about 20 times until there is no bubbles left.
3. Screw the plug in and re-fasten fully plug and wipe with clean the fuel from which can get stuck around.
4. To pump the air in the fuel system to fuel supply Pump about 10 times, move it up and down.
5. Turn the ignition key to start the engine.

After running the engine

1. Without pressing the gas pedal, turn the ignition key and start the engine.
2. After starting the engine, leave it on the idle mode for about five seconds.
3. Fully depress the accelerator pedal and raise the maximum speed value of the engine's dv. / min rates. (Repeat this for a few times)

If The Brakes Don't Work

If the brakes unexpectedly becomes ineffective; reduce the speed by changing gears quickly from first gear, to the second and the third. Tightly hold the steering wheel, while gradually pull the handbrake lever. Pull the vehicle stop on the side of the road.

In cases of Running Out of Accumulation

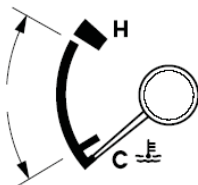
Use jumper cables and connect to another vehicle's accumulator to run the engine in this condition.

1. Check the accumulator liquid in the disabled vehicle.
2. Use a vehicle that has a charged accumulator in the same voltage.
3. Open the Accumulator cabinet. Connect the jumper cables.
4. After connecting the cables, start the engine of the vehicle with the auxiliary battery.
5. In a slow manner, raise the RPM of the engine of the vehicle with the auxiliary accumulator of the disabled vehicle and start the engine.
6. The disabled vehicle's engine works by applying the reverse procedure is followed in the process of reinforcing and connecting cables.



- The positive and negative terminals of the battery contact with each other definitely should be avoided.
- When connecting cables, the binding rings should not be allowed to touch each other.
- To charge the accumulator please contact to the closest Isuzu service.
- When the engine is running, remove one of the terminals of the accumulator. It may cause a malfunction in the electrical system.

If The Engine Overheats



If the engine is overheated engine power drops and engine cooling temperature gauge point above the upper limit of the safety area and enters the "H" area. Engine overheating warning light illuminates and you can hear an audible alert.



In this case, perform the following corrective actions.

1. Turn on the hazard warning flashers and park the car in a safe place that does not prevent traffic from operating, immediately.
2. Keep the temperature of the engine by running the engine at idle for a while for it to decrease.
3. Engine coolant temperature indicator shows when the point of the safety returns to the middle of the area, stop the engine.
4. After the motor has sufficiently cooled, check the coolant level in the radiator and the hydraulic oil in the container. If level is insufficient, add coolant. Also, check whether the fan belt is loose or damaged.

7. TECHNICAL INFORMATION

Sizes	
Maximum length	7502 mm
Maximum width	2275 mm
Maximum height (AC included)	3332 mm
Wheelbase	3385 mm
Front Length	1655 mm
Rear Length	2462 mm
Front track width	1914 mm
Rear track width	1650 mm
Interior height (in the aisle)	2170 mm
Weights	
Gross Vehicle Weight	9800kg
Dry weight	5200 - 6000kg
Front axle capacity	3400 kg
Rear axle capacity	6400 kg
Engine	
Model	4HK1E5N EURO5
Type	Common rail Turbo Dyzel Intercooler
Number of Cylinders	4
Engine Size (cm3)	5193
Maximum Power (PS / dv/min)	155 / 2600
Maximum Torque (Nm / dv/min) (Kgm/ dv/min)	(419 /1600-2600) (42,7 /1600-2600)
Exhaust emission class	Euro 5
Coupling	With hydraulic actuator, diaphragm spring, single dry plate
Gearbox	
Model	MYV
Number of gears, type	6 forward 1 backward, manual, overdrive
Differential Gear Rate	4.777
Steering Wheel System	Hydraulic

Tires	215/75 R17,5
Minimum Turn Radius	6450 mm
Climbing Ability	29.40%
Suspensions	
Front	Parabolic Steel Spring Leaf
Back	Air Bellow
Brake System	
Front/ Back	Disc/ Disc
Shortly	With ABS, double circuit, automatic, fully air assisted hydraulic brake system
Parking brake	Airbrake, effective on the rear axle
Auxiliary brake	Vacuum reinforced exhaust brake with optional retarder and optional stop brake
Fuel Tank	130 lt
Alternator	24V - 100A
Rated Voltage	24V
Accumulator	24V (2X12V)-105 Ah
Starter Motor	24V - 4,5kW

8. AUTHORIZED SERVICE

COUNTRY	STORE NAME	STORE ADDRESS	CONTACT NUMBER
ALGERIA	Spa Elsecom	Rue Baha H'med, BP 200 Bab Ezzouar - Alger	+213 (0)23 85 30 86
AZERBAIJAN	AZ Auto LLC	2207 Nobel avenue AZ1006 - Bakü	+(994) 124964598
BOSNIA	Sejari d.o.o. Sarajevo	Blažuj 78, 71215 Blažuj - Sarajevo	+387 33 770 306
BULGARIA	Isubus Ltd.	Botevgradsko Shose Blvd. 1839 Sofia	+(359) 28182929
CROATIA	STP Krapina Presečki Grupa d.o.o.	Frana Galovića 15 49 000 Krapina	+385 (049)328-045
CZECH REPUBLIC	Turancar CZ. s.r.o.	Bavorská 856/14 155 00 Praha 5	+420 776 111 113
FRANCE	Fast Concept Car	Z.I La Ribotiere 85170 Le Poire Sur Vie	+33 25 13 41 034
GERMANY	Omnicar Fahrzeughandel GmbH	Weinbrennerstrasse 10 77815 BÜHL	+49 (0)7223 8061930
GREECE	Petros Petropoulos S.A.	96-104 Iera Odos 122 10 Athens	+(30) 210349 92 00
HUNGARY	Anadolu Rom Hungary	1135 Budapest Robert Karoly Ket. 96-98	+36 703730637
ISRAEL	Universal Trucks Israel Ltd.	Industrial Area Segula, P.O. Box 4599 Petach-Tikva 49145	+972-3-9120010
ITALY	Midi Europe SRL	Via Crosaron, s.n. 37053 Cerea VR	+39 0442 328 212
LITHUANIA	UAB Saločiai Ir Partneriai	Mokyklos str. 1B, Bukiskės LT-14182 Vilniaus raj.	+370 5 2793000
MOROCCO	Maroc SDAMA	Route principale de Rabat 1, km 6,3 Ain Sebaa - Casablanca	+212 (0) 529 029 300
POLAND	Busimport PL Sp. z.o.o.	Gierłatowo 10A 62-330 Nekla Wielkopolskie	+48 61 43 86 905
ROMANIA	Anadolu Automobil Rom. Srl	Soseaua Bucuresti-Ploiesti Nr. 110 Comuna CiolPani	+4021-266 8300
SERBIA	Sejari Ltd. Belgrade	Auto-put za Zagreb 15 11199 Novi Beograd	+381 112608 700
SLOVAKIA	Turancar	Bratislavská 29 94901 Nitra	+421 37 6555 777

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