

Truck and Bus Handbook

A Guide to Safe Driving

LICENSING AGENCY





Training and testing flowchart

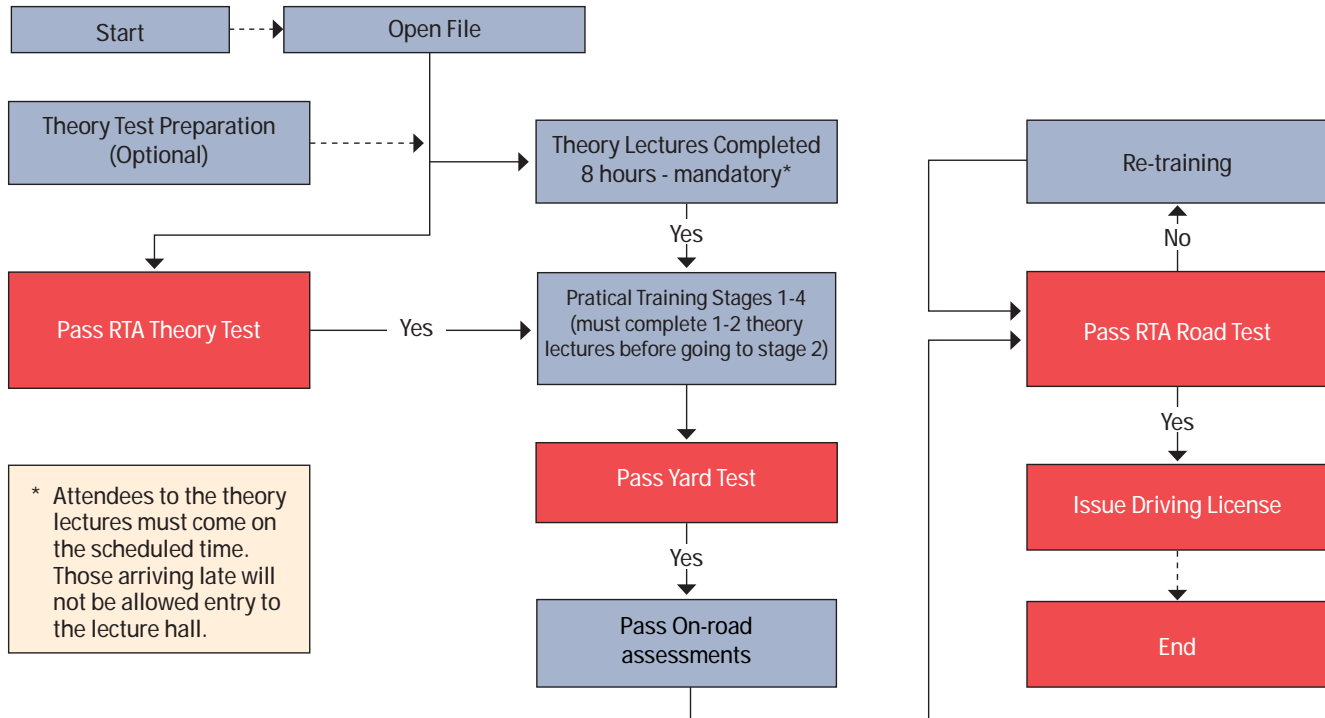




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Introduction

What This Handbook is About

The aim of this handbook is to help you to become a safe and responsible heavy vehicle driver. You need to keep in mind that getting your license, even after all the training, does not make you an experienced and safe heavy vehicle driver. It takes years of practice to learn all the skills and correct driving techniques. You need to keep this in mind when driving.

Why You Should Read This Handbook

This handbook tells you about some of the legal requirements for drivers of heavy vehicles in Dubai along with important road safety information. Before you read this handbook you need a general knowledge of road rules.

The knowledge test that you must pass to get a heavy vehicle license is based on the material in this handbook. You need to understand the information in this handbook to pass your test.

How to Use This Handbook

This handbook is divided into 15 parts. At the end of some parts there is a section called Test Yourself Questions, to help you check if you have understood important issues.





Corruption Warning!!!

Do not attempt to offer any money, gift or favor in any form to any instructor, assessor or examiner as this is considered **"BRIBERY"**. The case will be referred to the Police for necessary actions.

You can **stop**
CORRUPTION

Learning to Drive in 4 Stages

Driving a heavy vehicle is a complex and demanding task. With the guidance of your driving instructor, this driver training program will take you to the most important and relevant stages of training so that you can master this complex task in due time. At the completion of every stage, a complete review and evaluation will be conducted by your instructor and you must show that you are able to perform to the required standards independently before you are allowed to progress to the next stage.



If you are a beginner (no driver's license from your or other country), you are required to be trained with the Light Motor Vehicle (LMV) manual transmission covering the topics 1.07 until 1.11 of the LMV Curriculum. This training must be conducted within the premises of the driving institute. Once completed, you can resume the HMV/HB training from subject 1.07 onwards.

Stage 1

This stage will cover the basic requirements of ensuring the vehicle's roadworthiness before driving until the basic operations of the vehicle which includes the following:

- Pre-trip inspections.
- Height estimation and load security.
- Moving off and stopping.
- Gear changing.
- Steering and positioning on the road.
- Stopping at a precise spot.

Once you are able to show to your instructor that you are reasonably competent in basic vehicle handling, your training will move to a more challenging traffic situation on stage 2.

Stage 2 - Driving on light to medium density traffic

Utilizing your basic vehicle control skills, you will now have a chance to develop further by driving on medium density traffic. Here, your training will include the following skills:

- Proper use of mirrors, doing head checks and passing hazards.
- Pulling out from the side of the roads, lane changing and turning on the right/left side roads.
- Proper application of traffic signs and road markings.
- Dealing with pedestrians and vulnerable road users.
- Driving on narrow roads as well driving on slope.

Once you can drive the vehicle smoothly and able to appropriately apply the requirements of the traffic signs and road markings you encounter, your instructor should have the confidence to take you to the stage 3 of training.

Stage 3 - Driving on medium to heavy density traffic

At this stage of your training, your instructor will take you a more challenging environment where the roads are more complex roads, with higher speeds and with busier traffic. Some of the skills you will practice in this stage are:

- Scanning and observation skills at major intersections.
- Speed adaptation and safety margins.
- Lane changing and overtaking.
- Risk Forecasting.

- Roundabouts and U-turns.
- Night Driving of at least 1 hour.

This stage will also include the ROAD INTERNAL ASSESSMENT where you must demonstrate that your driving skills meet the requirements of the practical road test score sheet.

Stage 4 – Skill driving in the yard (this stage maybe practiced after the completion of the Stage 1).

In this stage, you will be required to learn relevant skills in specific areas like:

- Slope/Gradient.
- Offset reversing on left and right sides.
- Internal Yard Assessment (must pass).

Special Needs of Heavy Vehicle Drivers

Truck and Bus drivers are professionals, who spend most of their working hours on the road. Driving any vehicle is a challenge, but even more so for drivers of heavy vehicles, because their vehicles are heavier, bigger and longer and are more difficult to control.

Professional drivers are likely to be on the road more often, for longer hours and at times when driving situations are most dangerous, particularly at night. It is at those times when crashes tend to occur. You need to take extra care. Remember, driving is your profession. Other drivers expect you to display safe driving practices at all times.

Heavy vehicles accelerate more slowly than light motor vehicles and take longer to stop, so better judgement and higher level of driving skill is required to drive them safely. Crashes involving heavy vehicles are more likely to cause severe injury and greater damage than crashes involving only light motor vehicles.

Light motor vehicle drivers can make heavy vehicle driving more difficult when they do not know about the slower acceleration, braking and space needed by heavy vehicles. However, heavy vehicle drivers need to drive in a way which allows them to safely take action if car drivers do unexpected things. It is important that drivers are aware of the braking distances needed to stop if unexpected things occur. This is particularly important if the vehicle is loaded or if the road surface is slippery. Braking techniques must be fully understood.

Some Technical Terms You Should Know

Articulated Truck

A vehicle consisting of a prime mover and a semi-trailer.

Gates and Bulkheads

Vertical frames used at the front, sides and rear of load carrying platform to contain the load. The front gate is also known as a loading rack or headboard. The front rack must be strong enough to stop the load shifting, such as in a crash or when you brake very hard.

Gross Train Mass or Gross Combination Mass (GCM)

The maximum of the sum, as specified by the manufacturer, of the loaded mass of the vehicle plus the axle loads of any vehicle being towed as a semi-trailer or trailer. It can also mean the measured weighbridge mass or the road regulation limit.

Gross Vehicle Mass (GVM)

The maximum loaded mass specified by the manufacturer and given on the vehicle's registration certificate. The total mass must never exceed the GVM.

Height Detection Gantry

Height Detection Gantries are early warning devices for high vehicles and are located on the approach to bridges or tunnels. If the highest point of your vehicle comes into contact with the gantry, it is too high and you should not proceed.

Prime Mover

A motor vehicle which is constructed, designed or adapted for connecting to a semi-trailer.

Semi-trailer

An unpowered vehicle which is attached to a prime mover by a turntable, forward of the prime mover's rear axle, for the purpose of being towed by that vehicle.

Trailer Combinations

A trailer with a moveable front axle or a trailer with a fixed front axle.





Part 1: Truck and Bus Driver Licenses

Categories of Truck and Bus Driver Licenses

Truck and Bus Driver Licenses are issued in the categories shown below. When you have a license you can drive any class of vehicle according to your license category shown in the diagrams below. Check what you can drive with each category of license. The numbers written in brackets are the codes for the license class. This code will be printed on your new license.

Heavy Vehicle Category

Heavy Vehicle (4) You may drive a heavy vehicle designed for the carriage of goods, the empty weight of which exceeds two and a half tonnes.



Bus category

Light Bus (5) You may drive a rigid bus which seats up to 26 passengers excluding the driver.



Heavy Bus (6) You may drive a bus which seats more than 26 passengers excluding the driver.



Expats Driving in Dubai

If you are not a permanent resident and want to drive on your visit to Dubai you must:

- Be at least of age (20 years for truck and 21 years for bus).
- Have a valid Visit Visa.
- Hold a valid international driver license according to RTA policy.

International Driving License Restrictions

Generally you can drive a hire car using an international driver license if you are on temporary stay (Visit Visa) only. However, you will need to check with individual car hire companies to see if they accept international driver license, as some companies do not accept them.

You will need to check that you have insurance cover if you are intending to drive outside the UAE. An international driver license carried in conjunction with your foreign driving license is required for driving in the UAE. You cannot drive using an international driver's license if you are on a Residence Visa.

Licenses Recognised by the UAE

Licenses from a number of countries are currently recognised by the UAE as being suitable to change to a Dubai license without going through a formal test. Note the following:

Applicants from some of these countries will also need to submit an official letter from their Embassy as proof of ownership of the license.

The license holder's nationality or passport should be the same as the country that issued the driver license. Below is the list of recognised countries and requirements.

List of countries/states authorized to exchange UAE driving license (without training/test):

GCC Countries	Kuwait	Saudi Arabia	Bahrain	Oman	Qatar		
European Countries	Austria	Belgium	Spain	Germany	France	Ireland	Norway
	Netherland	Italy	UK	Turkey	Greece*	Switzerland	Denmark
	Sweden	Poland	Romania	Finland	Portugal		
African States	South Africa						
American States	Canada (Quebec Only)	USA					
Asia	South Korea*	Japan*	New Zealand	Australia	Singapore**	Hong Kong	

*Countries or states required to present translation (of license) from their embassy or consulate.

**Countries or states that require passing the theory test before the license exchange.

If you do hold a license from a recognised country and you want to exchange it to a UAE driver license, you must provide these documents:

- A copy of your passport/visa.
- An eye test certificate.
- A passport size photograph.
- UAE National ID (original and copy).
- The required fees – check with the RTA office for current fees.

Note the following requirements:

- Original documents must be presented.
- Licenses from non-English or non-Arabic speaking countries should be submitted with a notarial certificate in English or Arabic with the photocopy of the license (valid full license only).
- Permanent licenses for Residence Visas are issued for a period of up to 10 years if driver is 21 and above, yearly if driver is below 21.

Changing Your License From a Foreign License to a Permanent Dubai License (non-recognised countries - Residence Visa only)

You will need to undertake driving lessons as determined by the licensing authority if

- You hold a driver's license from countries whose licenses are not recognized by the UAE, or
- Your passport and driver's license have not been issued in the same country.

Driving Centres will arrange the necessary paperwork and permits.

What you will need to bring:

- Original passport (valid Dubai Residence Visa)/UAE National I.D.
- 1 passport copy with visa page.
- 4 photographs (passport size).
- An affidavit from the consulate stating that you have a valid license of that country (for non-English/Arabic speaking countries).
- An original license of your country and copy of the same.
- A No Objection Letter from your Sponsor (except for the professions exempted by the licensing authority).

Fees

Training Fees vary depending on the Driving Centre so check by contacting individual centres.

Renewal

To renew your license, you may do so through RTA Customer Service Centers, through the RTA website www.rta.ae, by calling RTA Call Center at 8009090 or any of the RTA Trusted Agents.

For drivers below 21 years, renewal is done at 2 centers (Al Towar and Al Manara Centers).

You will need to submit the following documents:

- An eye test certificate.
- A valid copy of a passport with valid visa.
- Original expired license.
- UAE National ID (original and copy).
- Corresponding Fees.

Heavy Truck and Heavy/Light Bus Training

It is widely accepted that the skills associated with driving trucks and buses are similar. They primarily relate to the dimensions and weight of the vehicle and not to the cargo that the vehicle is carrying. If a driver is taught to drive his vehicle in a smooth, careful manner it will not matter whether he is carrying passengers or any other form of cargo. All will travel smoothly and safely.

However, while the driving skills are similar it is considered appropriate to carry out training for the different license categories in vehicles of the same type. Accordingly, training for heavy vehicle license students will be carried out in trucks and training for bus license students will be carried out in a bus heavy or light.







Part 2: Driver Health and Safety

This section will help to ensure that you are fit to drive and give you tips about keeping alert while you are driving.

Alertness

Driving a heavy vehicle is hard work. Professional drivers are often required to be on the road for long periods, which is very tiring. If you are tired, you will become less alert. There are many things that good drivers do to prevent becoming tired. If you are tired or drowsy while driving, you may fall asleep and drive into the path of other vehicles, causing serious injury or even death, to both yourself and others. Remember that you are driving a very heavy vehicle that can cause a lot of damage.

Preventing Tiredness

The best way to be alert and avoid dozing at the wheel is to not get tired in the first place. Here are some suggestions.

1. Get Plenty of Sleep

If you have a long trip to make, be sure that you get a good night's sleep before you go. Never start a long trip if you are already tired.

2. Timing Your Trip

Your body gets used to sleeping during certain hours. If you drive during these hours, you will be tired. If possible, try to make long trips during the hours when you would normally be awake. This will not always be possible because of traffic restrictions that limit heavy vehicles to drive at night in some parts of Dubai. If you need to drive at night you need to be extra careful.

3. Avoid Medicines

Some medicines may cause drowsiness. Always ask your doctor or pharmacist about possible effects on driving while on medication, whether the medication is prescribed by your doctor or bought over the counter.

Common medicines that may cause drowsiness are cold tablets, hay-fever and allergy medicines. If you have to drive while you have a cold, hay fever or allergy, it is much safer to drive with these symptoms than to take medicines which will cause drowsiness at the wheel.

4. Do Not Use Drugs

There are no known drugs that can overcome your feeling of tiredness. Some substances may keep you awake for a while, but will not make you alert. Later on, you may be even more tired than if you had not taken them at all! Sleep is the only thing that can overcome tiredness, so if you have started driving and begin to feel tired, stop and sleep. You will know when you are getting tired. You may start to yawn or find that you are blinking more often, finding it difficult to keep your eyes open.

5. Do Not Drink Alcohol and Drive

Alcohol affects your judgement and makes it more difficult to judge risks, such as speed of your own vehicle as well as the speed of others. It makes it difficult to assess distance. Alcohol also gives you a false sense of confidence, which may encourage you to take risks that you would not otherwise take. It makes it difficult to concentrate and do more than one thing at a time, slows your reaction time and makes you more likely to crash.

Some drivers actually think that they are better drivers when intoxicated. This is absolutely wrong. Alcohol is a major cause of fatal road crashes.

6. Take Breaks

Short breaks keep you alert. Take them before you become tired. Never drive for more than 10 hours in any 24 hour period.

Walk around and inspect the vehicle. It also helps to do some simple physical exercises, such as running on the spot, touching your toes or knee-bends.

7. Keep Your Mind on the Road

You can also do many things to keep your mind alert, like counting cars with different number plates or noting landmarks as you approach them. Invent your own ways of keeping your mind on the road and on the job. Long, straight roads can become very boring, especially at night.

8. Watch Your Food

Fresh fruit and vegetables are much better for you at any time. Eating these foods on a trip will stop you from being tired after a meal. Do not eat foods such as bread, pasta, potatoes, pies, and french fries while you are on a long trip. Do not eat a heavy meal before you begin driving because big meals will make you tired. Eating smaller quantities of food more frequently will help you to stay alert.

9. Keep Comfortable

Adjusting the driving seat is very important for drivers. If you are uncomfortable, you get tired more quickly and you spend less time looking at the road.

If you can adjust your seat, this is what you should do:

1. Sit in the seat with your back and shoulders against the back rest.
2. Put your feet flat on the floor in front of the seat.
3. Sit comfortably so your feet can reach the pedals.
4. Adjust your seat forward and back so that your foot can push the clutch pedal completely to the floor while your leg still has a small bend at the knee (about 15 to 20 degrees).

10. Keep Cool

Try to keep as cool as possible. Depending on the weather, keep the windows and vents open to get fresh air into the cabin. Use the air conditioner if the vehicle is fitted with one.



Personal Safety

Make sure you follow these basic safety steps.

Before driving, always make sure that there are no loose objects in the cabin like drink cans or clip-boards. Be careful about loose things on the floor of the cab that could get in the way of your foot connecting with the brake, clutch and accelerator pedal. Make sure you can push the clutch, brake and accelerator pedals all the way to the floor.

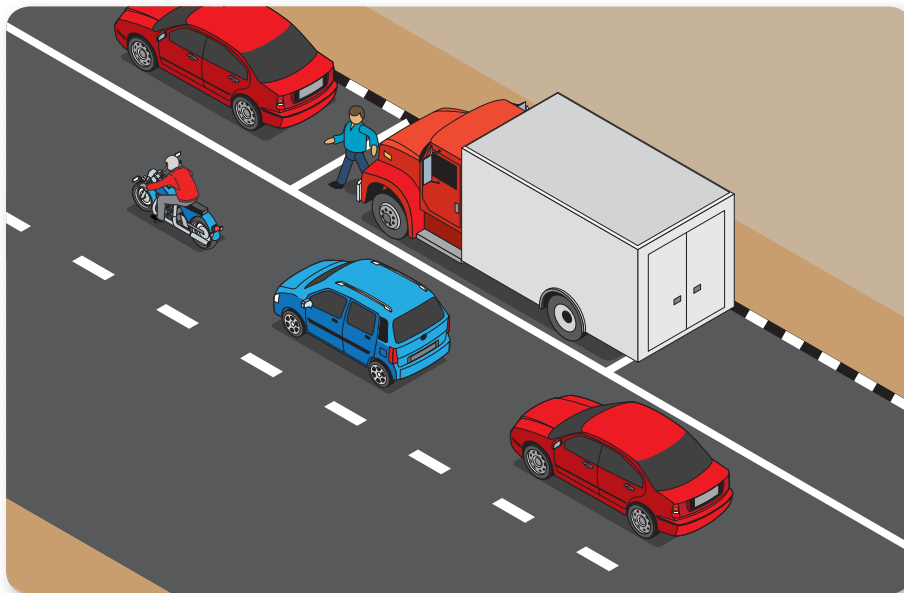
If your vehicle is parked on the road, approach the vehicle from the front so that you are facing the oncoming traffic.

As you leave the cab, climb out facing it, but watch for oncoming traffic.

Be careful when you are climbing into or leaving the cab. It is easy to injure yourself. Always use the vehicle steps, foot-holds and grab handles. When you climb down from or up into the cab, make sure that you face towards the vehicle.

Never Jump Out of a Vehicle

If you have to step on a tyre to get into or out of the cab, be careful if the tyre is wet. Tyres can get very slippery. You might fall and hurt yourself or fall into the path of moving vehicles.



Changing Wheels

If you have to change wheels, move as far off the road as possible. Be very careful changing a wheel on the left side of the vehicle if you are near to traffic on the road. Use hazard warning lights and warning triangles if there is any risk to you or to other road users.

Lifting any Heavy Object

Learn how to lift properly. When you start to lift heavy objects, have your back straight and your knees bent.



Incorrect



Correct





Part 3: Vehicle Checks

Keeping Your Vehicle in Good Condition

As a heavy vehicle driver, you should carry out daily inspections of your vehicle before you drive it. The time you spend checking your vehicle is an investment in your own safety as well as that of other drivers.

Remember that as the driver you have final responsibility for your vehicle and what it does on the road.

Pre-trip Inspection

You should carry out these checks every day before you drive.

1. Around the Vehicle

Walk around the vehicle and look for any of the following problems:

A. Vehicle tilt. If the vehicle sags to one side, look for a flat tyre. The problem could be overloading or incorrect loading. There could also be something wrong with the suspension.

B. Load. Check that the trailer doors or load doors are closed and locked. Check that all lashings are secure.

C. Load security. Check to see that the load is well packed and evenly distributed. A shifting load is dangerous. Check all lashings. Make sure all area load doors are locked. Check that tailgate, liftgate, sliding ramp and other equipment are put away ready for travel. On an open trailer, the load may be covered. Make sure the cover is fastened down. Unsecured tarpaulins and loads can fall off and cause crashes.

D. Load height. Make sure you know what the highest point of your vehicle is from road level. You need to know your height when you plan your route so you can avoid low bridges.

E. Vehicle damage. Check for cracks, and missing or loose parts.

F. Leaks. Check under the vehicle for signs of any leaks of oil, coolant, grease or fuel.

G. Wheels and rims. Check for rim damage on each wheel. A bent or damaged rim might let a tyre lose pressure or come off the rim.

H. Check wheel nuts. If some are missing, the others have to take extra strain and may fail. Check for rust streaks around the wheel nuts. This is a possible sign that the wheel nuts are loose. Also check the wheels for signs of leaks from wheel bearings and seals. Spilled or leaking grease can cause a fire or a wheel to lock. If any nut is missing or if they break off while being tightened, do not drive the vehicle.

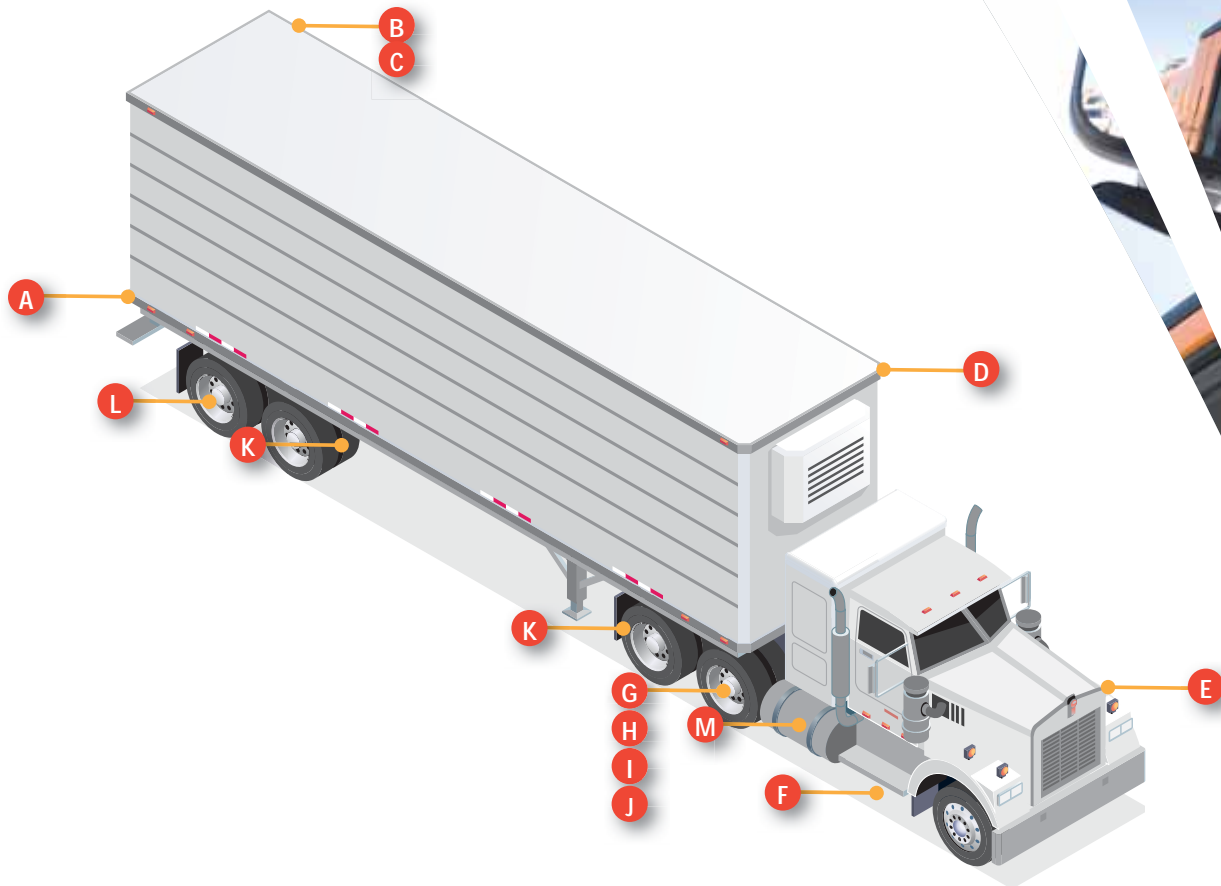
I. Tyres. Check all tyres for tread wear, damage and proper fit. Worn tyres can cause loss of steering control. Never drive the vehicle if there are any signs of damage or excessive wear, such as bulges or bald spots. These might cause the tyre to blow out. This applies to all tyres. Just because heavy vehicles have more wheels and more tyres than smaller vehicles, does not mean that problems with one or two tyres can be ignored. A blow out of any tyre can create a dangerous situation. All tyres must be roadworthy.

J. Tyre pressure. Check the tyre pressure with a gauge. Low pressure in tyres on steering axles makes steering harder and causes heat build-up in tyres. Low pressure in dual tyres can cause them to rub together at the bottom and start a tyre fire or cause a blow-out. The vehicle also will not brake or corner as safely as it should. If the pressure is too high the tyre will wear more quickly than it should.

K. Spacing between dual wheels. Check the space between dual wheels. Rocks or mud caught between the wheels can unbalance a wheel and damage the tyre side walls and wheel bearings.

L. Spacing between brake drum and wheel. Check the space between the brake drum and the wheel. Things caught in there may damage the brakes and the tyre.

M. Fuel system. Check that fuel tanks are firmly attached. Test fuel caps by hand to make sure they are properly closed. Check for leaking fuel.



2. Engine Checks

Visually check the engine area for any signs of damage, particularly to the steering mechanism or suspension. Then go through the following checklist:

- **Fluid levels.** Check crank case oil, radiator coolant, battery fluid and windscreen washer fluid. Check automatic transmission and the oil make-up tank, if fitted. Check the power steering fluid reservoir. Top up all fluids.
- **Leaks.** Look for signs of oil leaks, water or brake fluid. If there are leaks, have them checked before you leave.
- **Electrical system.** Check for loose electrical wires and get them fixed before you leave.
- **Belts and pulleys.** Check the belts on the generator, alternator, water pump, air conditioner and air compressor. Make sure they are intact and are not frayed or cracked. If you need to adjust them, look at the vehicle manufacturer's handbook.
- **Finally.** Securely close the bonnet or lower the cab, locking it in position. Failure to undertake these checks may result in fluid levels becoming so low that steering, brakes or transmission fail.



3. Checking Driver's Controls

Vehicle entry. Check that everything is safe. For trucks, check the ladder, grab handles and door handles. For buses, check hand rails and operation of door(s).

A. Emergency and safety equipment. Make sure you have all the proper equipment. This should include:

- Fully charged fire extinguisher.
- First-aid kit.
- At least three, two-faced reflective triangles.
- Spare fuses.
- Seat belts.

B. Mirrors and glass. Clean all windows and mirrors and make sure they are not cracked. Check that the windscreen wipers and washers work. Replace worn wiper blades and clear blocked washer jets. Check that mirrors are adjusted properly.

C. Engine start-up. Before starting up the engine, check that the parking brake is on. Start the engine and let it idle until full oil pressure shows on the dashboard gauge. Increase the engine revs slightly until the water temperature gauge starts to rise.

D. Instruments and gauges. With the engine running, check that all instruments and gauges are working.



In the case of oil levels, the dipstick will tell you the level. Always make sure that the oil level as shown on the dipstick is just under 'MAX'. As far as other levels are concerned, make sure that the levels are maintained at the required level as shown on the reservoir.

If these levels are not maintained, serious damage can be done to the operating systems of the vehicle – transmission, steering, and electrical equipment – resulting in loss of control and increased risk of serious crash.

E. Primary controls

With the engine still running, check the following:

- Steering wheel for any slackness.
- Press the clutch until you feel a slight resistance (some free play is normal).
- That the accelerator and brake are operating properly.

F. Secondary controls

Check the following:

- Switches and signal lamps.
- Interior and dashboard lights.
- Horn.
- Indicator lights for left and right turn signals.
- That the cabin is clear of rubbish and loose equipment is stowed away.
- That all lights are working including, low and high beam, hazard warning lights, number plate and running lights.
- The brake lights.
- Reflectors.

You will need to get out of the vehicle to check external lights. Wipe any dust and grease from all lights and reflectors.

Final Checks

These are the checks you need to make for different vehicle types.

1. Air Brake Vehicles

Check the following:

Air intake filter is not clogged. Open the air tank taps and if there is oil in the air that comes out, there may be a problem with the compressor. This must be checked by a mechanic. Do not forget to close the taps afterwards.

Low air pressure warning gauge works. The gauge should show a steady increase after the engine has been turned on. This should take less than 3 minutes. If it takes longer, adjustments are needed. Note the air pressure loss since the last stop. If the loss is more than 70kpa, there may be a problem. Seek help from a mechanic.

Low pressure emergency systems. Stop the engine and reduce air pressure by pressing the brake pedal.

Trailer brake check. Apply trailer brakes only and try to move forward gently. The vehicle should not move. Check that air hoses are not damaged or leaking and are properly connected to the towing vehicle.

2. Hydraulic Brake Vehicles

Pump the brake pedal 3 times. Push the pedal firmly and hold it down for 5 seconds. If, after 5 seconds, you feel the brake pedal sinking, there is a leak in the system. You must have these leaks fixed before driving.

3. All vehicles

For all vehicles you must check the following:

- **Parking brake check.** Try to drive forward in low gear while the parking brake is on. The vehicle should not move.
- **Full brake check.** In first gear move forward at no more than 5 km/h. Apply the brakes firmly. If the brakes feel slow to respond or if the vehicle pulls to one side, the brakes need attention from a mechanic.
- **Final steering check.** Pay close attention to steering performance as you move off.

4. Prime Movers and Semi-trailers

Check for slack in the coupling by moving gently forward and back. For all prime movers and trailers it is important to check that there is no turntable slack. With the trailer brake on, gently pull forward and reverse to make sure there is no slack in the turntable connection.

Make sure that the trailer legs are wound up and that the winding handle is put away.

Check that all electrical leads are connected properly and that trailer lights and indicators are working.

After Departure Checks

Visually check that your load is secure, using all your mirrors. At your next stop do a quick check around the vehicle. With your hand, check the temperatures of tyres and brake drums. Look for smoke or feel for excessive heat radiating from brake drums. Be careful not to burn yourself. You will be able to feel heat coming from the brake drums without touching them. Look for under-inflated tyres and over-heated brakes. Look for any liquid leaks which may have become visible. Each time you stop, repeat these checks.

IMPORTANT REMINDER!

Before driving always ask yourself, "Have I carried out my:

- pre-trip inspection.
- engine checks.
- driver's control checks.
- brake checks?"

After you have departed make sure that you regularly check that your load is secure.



Part 4: Coupling and Uncoupling Trailers

It is very important that you follow proper procedures when coupling and uncoupling semi-trailers. Doing it the wrong way will damage equipment and increase the risk of injury to the person doing the coupling or uncoupling. It also increases the danger of a crash on the road.

The best way to reduce these risks is by following a set of procedures that you always go through in the same way, step by step. Your instructor will train you in these procedures.

Coupling Semi-trailers

Check that the brake lines are long enough for the semi-trailer when it has to make a tight turn. Also check that your semi-trailer and prime mover coupling mechanisms will fit and work together.

- 1. Inspect the area** and secure the semi-trailer. Make sure the area is clear of obstacles and people. Chock the front and back of the semi-trailer wheels on both sides. To chock the wheels, you block the wheels with a wedge to stop them from moving. If the semi-trailer has spring loaded brakes, you should not have to chock the wheels.



2. Inspect or check coupling devices for damage and to see that they will fit together correctly. The turntable should be tilted back with the jaws open. The turntable is mounted on the back of the prime mover and connects the prime mover and semi-trailer. Drive the prime mover so that it is positioned squarely in front of the semi-trailer. Use both mirrors to line up the outside edges of the rear prime mover wheels with both edges of the semi-trailer. Get out and check that the prime mover semi-trailer is lined up accurately. If the prime mover is not straight, you could knock the semi-trailer down and damage the load, the semi-trailer or the prime mover.

3. Check semi-trailer height. The prime mover should lift the semi-trailer slightly as it hooks up. The semi-trailer's skid plate should be just lower than the prime mover's turntable. If the semi-trailer is too high, the king-pin may miss the turntable and you will have to start again. If the semi-trailer is too low you may hit it and knock it over. Check that the king-pin and turntable are aligned. Under no circumstances should you go under the nose of the semi-trailer, until it is supported by the prime mover. If the landing gear collapses, you could be seriously injured or killed.

4. Back the prime mover slowly in a straight line. Avoid jarring the semi-trailer. Stop when the turntable top plate just touches the semi-trailer apron plate.





5. **Secure the prime mover** by applying the parking brake and leave the cab to have a look at what you have done so far.



6. **Safety first.** Watch out for greasy and wet areas on the truck that could cause you to slip and fall, while you are climbing on the back of the prime mover to connect the lines.

7. **Back the prime mover** slowly under the semi-trailer skid plate, using the lowest reverse gear. Avoid hitting the king pin too hard or you will damage it. Disengage the clutch pedal when you feel and hear the turntable engage the king pin.

8. **Secure the vehicle** by applying the parking brake and go to the semi-trailer.



9. **Visually inspect the coupling** by looking under the semi-trailer. Use a torch if you cannot see well. Check that the turntable jaws have engaged on the shaft, not the head of the king pin. If the jaws are around the head, the king pin could bounce out of the jaws. If this were to happen, the semi-trailer, load and other traffic could be severely damaged. If the turntable is not fixed, there must be a locking block on the skid plate of the semi-trailer. The truck must not be used if this block is missing.

Make sure there is no space between the upper and lower parts of the turntable. Check that the locking lever has moved to the locked position. Check that the safety catch is in place over the locking lever to prevent accidental opening. On some rigs, the safety catch has to be placed into position manually.

10. Connect air brake lines to the semi-trailer, so that you can use the semi-trailer brakes while you finish coupling. Make sure air lines are correctly and properly connected and that the lines are safely supported, so they will not be crushed.

11. Check the connection. Take the weight off the trailer legs and then pull forward gently against the locked semi-trailer brakes or chocked wheels. Disengage the clutch as soon as you feel resistance. Repeat this step until you are sure that the connection has been made properly.

12. Connect the electrical cable. Engage the locking device to prevent loss of power to the semi-trailer on the road. Secure all lines and cables away from moving parts of the vehicle. Check all lights and other electrical equipment on the semi-trailer.

13. Raise the semi-trailer supports. Raise the supports from the ground until they are fully raised. Check that the crank handle is secured. Check that there is enough clearance between the prime mover rear wheels and the nose of the semi-trailer to allow sharp turns. Check also that the landing gear is raised enough to allow for the swing of the frame on sharp turns.

14. Remove semi-trailer wheel chocks and store in a safe place.



Uncoupling Semi-trailers

1. Position the vehicle. The surface that your vehicle is standing on must be able to support the semi-trailer and the bases of the landing gear. Putting support plates or strong boards into position under the landing gear is strongly recommended.

2. Apply the semi-trailer brakes to hold the semi-trailer. Back up gently to ease pressure on the king pin. This will make releasing the king pin lock lever easier. Cut off air between prime mover and semi-trailer. This prepares the air lines to be disconnected. If the semi-trailer has spring brakes, this action will put them in the "on" position.

3. Secure the vehicle. Apply the parking brake. Chock the front and back of the rear semi-trailer wheels, if necessary.



4. Lower the landing gear with the crank handle until the supports make firm contact with the support plates, boards or ground beneath them. The prime mover will rise as the weight of the semi-trailer is taken by the landing gear. When the prime mover stops rising, the landing gear is supporting the semi-trailer. Stop cranking.

5. Disconnect air lines and electrical cable. Place the air lines in a secure place at the back of the prime mover to prevent dust from getting into them. Make sure the electrical cable is secured. Secure the lines to avoid damage. On some vehicles, air supply line taps at the back of the prime mover need to be turned off.

6. Release the turntable latch. Raise the release handle lock pin and pull the handle to the “open” position. If the handbrake is not on properly, the whole vehicle may move. Keep your legs and feet away from the vehicle to avoid injury.

If the handle will not move, there is too much pressure on the king pin and you will need to return to the cab and back up very gently to release pressure. After securing the prime mover again, leave the cab, release the latch and return to the cab.

7. Pull the prime mover partially clear of the semi-trailer. Release the parking brake and move the prime mover forward until the turntable begins to clear the semi-trailer skid plate. Use the lowest forward gear. Stop with the prime mover frame still under the semi-trailer. This will prevent the semi-trailer from falling, if the landing gear collapses or sinks.





8. Secure the prime mover again. Apply the parking brake.

9. Inspect the semi-trailer support. Make sure the ground is supporting the semi-trailer. Check the landing gear for damage. Go back to the cab.

10. Release the parking brake and pull clear of the semi-trailer.

Warning Note

If you stand on or near the turntable to connect airlines or electrical cables, be careful. It is easy to slip on greasy parts. When coupling or uncoupling a semi-trailer, do not take short-cuts.

Check the surface where your vehicle is standing. Make sure it can support the weight of the semi-trailer. Use base boards if you are not sure. Use low gear on the crank for the landing gear when the semi-trailer legs are on or near the ground.



Test Yourself Questions

(Answers to Test Yourself Questions are upside down at the bottom of this page)

Q1 When coupling a semi-trailer to a prime mover:

- A The turntable on the prime mover should be just lower than the skid plate on the semi-trailer.
- B The semi-trailer should be the same height as the prime mover.
- C The turntable on the prime mover should be just higher than the skid plate on the semi-trailer.

Q2 Chocking the front and back of the semi-trailer means you:

- A Check the front and back of the semi-trailer.
- B Block the wheels with wedges to stop them from moving.
- C Throw out any debris that has collected in these places.

Q3 When uncoupling a semi-trailer from a prime mover and the turntable latch handle does not move, you should:

- A Pull harder to get it to move into the open position.
- B Put some oil onto it to get it to move more easily.
- C Return to the cab and back up very gently to release pressure.







Part 5: Dimensions and Load Limits

Your vehicle with its load must not exceed the set limits of height, length or width (over dimensional load). Where a load will exceed these limits, the RTA may issue a permit to allow for the transportation of the load. To apply for a permit for an over dimensional load contact the RTA.

Length

The maximum overall length of a vehicle, including any load is equal to the maximum length permitted for your class of vehicle. For the following special cases, the procedures given below should be carried out.

Poles and logs should be carried lengthways. They should be supported with steel chocks and chained to the vehicle with at least two sets of chains.

Maximum forward projection of loads. The load on a motor vehicle should not protrude more than 1.2 metres in front of the vehicle.

A rearward projecting load, greater than 1.2 metres, should have the following warning signals for certain rear projections. Note that the projecting load should be no more than the overall length limit of the vehicle.

1. The rear of a load on a vehicle should carry a warning signal if the load:
 - a) Projects more than 1.2 metres behind the vehicle.
 - b) Projects to the rear of the vehicle so that the end of the load cannot be seen easily from behind.
 - c) Is on a pole-type trailer.

2. The warning signal must be:

- a) in daytime, a red coloured flag or cloth
- b) at night, a red light that can be seen for at least 200 metres.

Height Limit for Heavy Vehicles

Heavy Vehicle drivers must always be aware of the height of their vehicles as well as the height of the load. Neglecting this can be dangerous and costly.

Dangerous because the driver, passengers or other road users may be killed or seriously injured. Road structures may be damaged or destroyed.

Costly because the driver and the company will be liable for the damages caused including recovery and repairs of the vehicle. There will also be claims resulting from injuries and/or damages.

Fines and prosecution against the driver and the company is sure to happen. On the business side, the company suffers because the vehicle and driver are unable to function. Insurance premiums will be higher because of bad driving records.

Before the journey - Perform vehicle safety checks and decide on the most appropriate route taking into account the overall height of the vehicle and the load. Secure permits if the overall vehicle height exceeds 4.2 meters.

During the journey - Drive at lower speeds and be mindful of low structures along the way obeying height limit signs.

In the Event of Accident - stop the vehicle immediately. Switch on the hazard lights and secure the area. Render necessary assistance if necessary and most of all, call 999 and wait at the scene for the police to arrive.



Width

Your vehicle with its load should be no more than 2.5 metres wide. This does not include mirrors or lights.

Loading

The first step in making sure you can safely carry any load is to select the appropriate vehicle and correctly position the load. Remember, when you are driving a laden truck you must not:

- Expose persons or property to any danger.
- Allow soil or any harmful substance to leak from your vehicle and harm public health.
- Cover lights, number plates, signs, windows or mirrors.

The driver of a heavy vehicle must not exceed the maximum allowed weight and the vehicle load must not cause any danger to the public or obstruct traffic in any manner. The vehicle you are driving must also prominently display on the vehicle the unladen weight of the vehicle, as well as its load capacity and gross weight.

Loads must not be placed in a way that makes the vehicle unstable or unsafe. Loads should be secured on a vehicle using an appropriate load restraint method to prevent any part of the load:

- Hanging or projecting from the vehicle in such a way that it could injure a person, damage property or cause a hazard to other road users.
- Being dislodged or falling from the vehicle.

Mass (Weight)

The mass or weight of a vehicle that can be driven depends on the type, size and number of tyres. Refer to the vehicle manufacturer's handbook.

In addition to the manufacturer's limitations:

- The total mass of the loaded vehicle or trailer should not exceed the gross vehicle mass.
- The total mass of the loaded vehicle with a trailer attached should not exceed the vehicle manufacturer's gross combination mass specification, whichever is the lesser.

Load Security

The Basics

It is your responsibility to make sure the vehicle is appropriate for your load. Any load must be stopped from moving or falling from a vehicle by indirect or direct methods, or a combination of both.

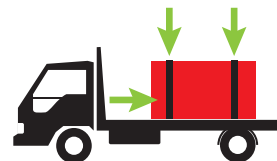
Indirect restraint is clamping the load against the vehicle body structure, for instance tie-down lashing.

Direct restraint means:

- Containing the load within the vehicle's body structure.
- Attaching the load to the vehicle body structure using lashing or mechanical locking devices.

Combination of indirect and direct restraint uses friction (indirect restraint) and a form of direct restraint. Different types of restraint materials are required, because the friction between the load and the vehicle platform will not be sufficient to prevent the load from moving:

- Up and down, on bumpy roads.
- Forwards, when braking.
- Backwards, when in reverse gear and braking.
- Sideways, when going around curves or corners.



Things to Consider When Securing Your Load

You should also consider the following when securing your load.

Friction

A slippery vehicle platform surface is never safe. Make sure the bottom surface of the load and the platform surface are clean, dry and free of grease. Clean all these surfaces, this way you can get more friction. Avoid metal to metal contact by putting timber or rubber between the metal surfaces.

Packing

Sometimes you need to use packing for support or because of the shape of the load. Packing must be carefully selected and secured to prevent it from moving and to provide access for slings or forklift forks. The width should be at least twice the thickness. A single layer of packing between the base of the load and the deck is better than two layers. A single layer of packing is also better between the layers of the load.

Obstacles, wedges and chocks

The front of the load should be hard against the headboard, front rack or bulkhead of the vehicle. If you cannot do this, then use an obstacle which can be fitted across the vehicle platform and firmly attached to the chassis frame. The front of the load should be hard against this obstacle.

Obstacles, wedges and chocks can be used to prevent single items from moving in any direction. These must be strong enough for the load and properly secured to the platform.

Load anchoring points

Where anchoring points are not strong enough or cannot be used, extra lashing will be required.

Lashings

Lashings, fastening devices, chains, cables, clamps, load binders and other equipment must be in good order.

1. Lashings and fastenings must be properly tensioned at all times and checked often during the journey.
2. Be careful of over-tensioning. It can strain tensioners and lashings, and may damage the load.
3. The whole restraining system must be arranged so that failure or slackening of one part does not affect other parts of the system.
4. Lashings that provide restraint forwards and backwards must be as close to horizontal as you can get them. They must never be at an angle of more than 60 degrees to the horizontal.
5. Lashings must not contact any sharp edges of the load or the vehicle. They can be protected by the use of corner protectors, sleeves or other packing material.

Tarpaulins and covers

Except for very light bulk loads, sheets or tarpaulins provide weather protection only. Loads must be properly restrained against movement as well as protected by the tarpaulin. Loads of sand and other materials must be covered in order to prevent particles of dust and other loose material from blowing off the truck.

Make the load restraint vibration proof

It must be arranged so it will not be released by vibration or load movement.

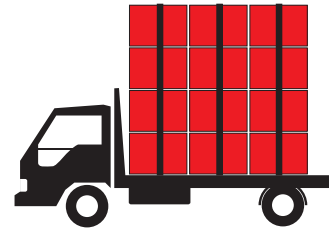
Load Distribution and Arrangement

The first priority when loading a vehicle is to keep within load limits for the vehicle and its wheel, axle and axle group load limits. The load should comply with dimension limits as well. The load should be placed against the headboard. If you cannot do this, then use an obstacle that can be fitted across the vehicle platform and firmly attached to the chassis frame.

Try to spread the load to give an even weight distribution over the entire floor area and to put an even load over the axle groups and each side of the axles. Keep the centre of gravity as low as you can. This means that heavier and bigger items should be at the bottom.

To keep the load stable in the sideways directions, the centre of gravity of the load should be on, or as near as you can get it, to the centre line of the vehicle. Heavy items should be carried on the centre line, not at the sides. Heavy, solid items should be placed in front of light, crushable items. Part loads of heavy items should be placed over, or nearly over, the axles. The load should be rearranged whenever practical, or after each partial unloading, to maintain weight, height and balance distribution.

High loads are less stable, so there is a greater chance of overturning when cornering. High loads should be carried on low platform vehicles with multiple axle groups.



Estimation of Height.

Here are some steps that you can follow to visually judge the total height of the vehicle and the load.

Step 1: Measure the actual height of your vehicle from the ground to top of the cabin. Most prime mover truck is about 3.5 meters.

Step 2: Now estimate the height of the load in excess of the cabin. For example 0.5 meters.

Step 3: Total up the height the truck and the load's height over the cabin. This gives you the estimated height.

In this case ($3.5\text{m} + 0.5\text{m} = 4.0\text{ meters}$)

When not sure...

At any time if you are not sure of the total height of the load and vehicle that you are driving, you must physically measure the total height. Do ensure it is of legal limit before moving off.

It is very dangerous to carry load that exceed the height limit, as this may cause serious structural damage like overhead bridges. More seriously, it may cause injuries to road users and yourself.

Test Yourself Questions

(Answers to Test Yourself Questions are upside down at the bottom of this page)

Q1 The maximum overall length of your vehicle is:

- A Equal to the maximum length permitted by your class of vehicle.
- B 1.2 metres in front, or 3.5 metres behind the vehicle.
- C 2.5 metres in front, or 2.5 metres behind the vehicle.

Q2 The person responsible for making sure the load is appropriate for your vehicle is:

- A The owner.
- B The manufacturer of the goods.
- C The driver.

Q3 A driver should load the vehicle safely and securely by:

- A Placing the load along the sides of the vehicle.
- B Placing heavy loads on the top of lighter cargo.
- C Spread the weight of the load evenly over the entire floor area.







Part 6: Vehicle Control

Safe operation of a heavy vehicle requires special skills in the following areas:

- Accelerating.
- Steering.
- Reversing.
- Gear shifting.
- Braking.

Most of these skills are required in virtually every driving situation, whether it be turning, approaching an intersection, driving down a hill or along a freeway. Master these skills and you are on your way to becoming a good driver.

Remember, whatever vehicle you drive, all its handling characteristics are affected by the load you carry, including passengers.

Accelerating

Accelerate smoothly and gradually so that the vehicle does not jerk too much. Rough or rapid acceleration may cause the load to shift on your truck and damage the vehicle. When pulling a trailer, the king pin or its coupling could be damaged by rough acceleration.

Sand or Gravel

You should accelerate more slowly whenever you drive on sand or gravel. If you over accelerate, the wheels will spin, and if you are pulling a trailer, it could slide sideways.

Rain

Rain makes road surfaces slippery, especially as the first drops fall and particularly after a long period of dry weather. Oil and dirt accumulate on the road and when mixed with water create a very slippery surface.

If there is too much water, or if you are going too fast, your tyres may ride on the top of the water like water skis. This is called aquaplaning. When this happens, control of the vehicle becomes very difficult. Make sure you have good tyres with deep tread and slow down when the road is wet.

Steering

Steering a large vehicle requires more knowledge and skill than driving a light vehicle such as a car, so follow these tips.

Holding the Wheel

Hold the steering wheel firmly with both hands. When you hit a curb or pot hole, you could lose control of the steering wheel unless you are holding it with two hands.

Cut-in

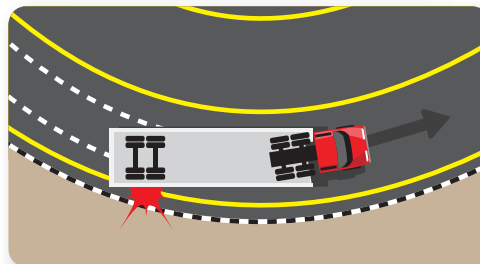
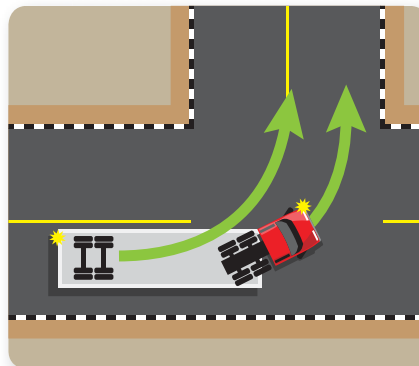
When any vehicle goes around a curve or turn, the rear wheels usually follow a shorter path than the front ones. This is called cut-in. The greater the length of the vehicle and the sharper the turn, the greater the cut-in will be. On your approach to a left bend, steer close to the right side of the lane to reduce interference with oncoming traffic.

On your approach to a right bend, steer close to the left side of your lane to make sure that your right wheels stay on the road surface.

Cut-out

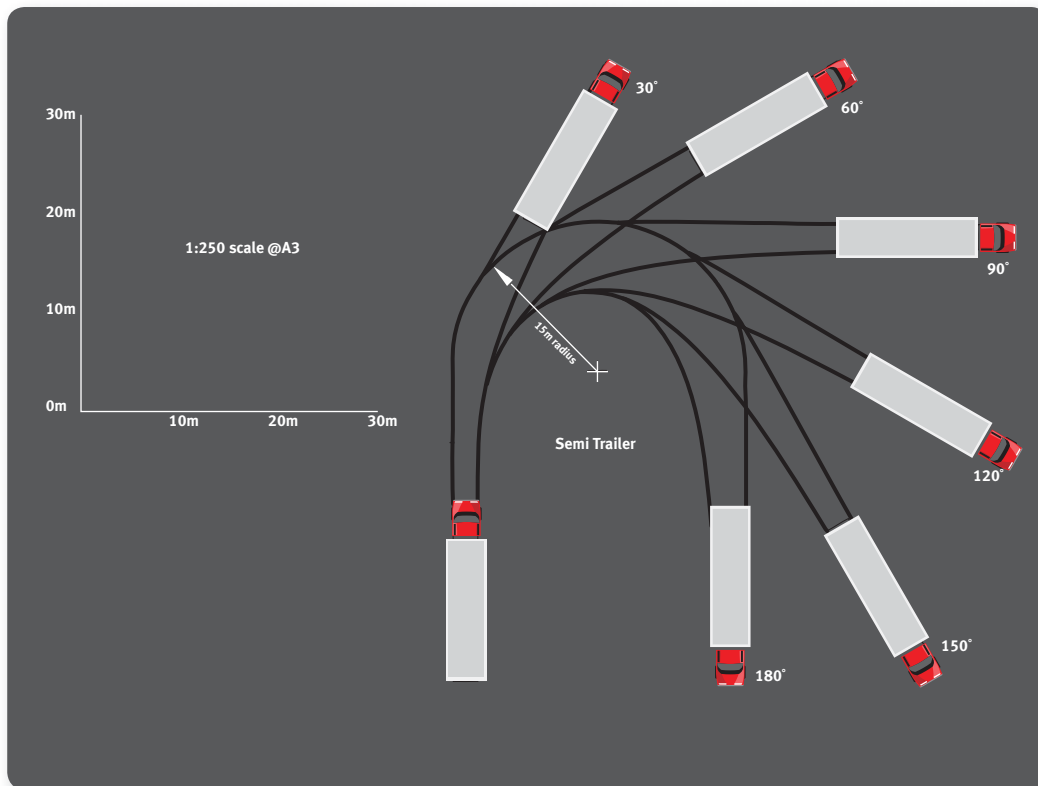
The tracking of rear wheels of semi-trailers will vary with the vehicle's speed:

- At low speeds, the rear wheels track inside those of the prime mover.
- At high speeds, the rear wheels can track outwards.



Where the bend has a curb, the rear wheels may strike the curb, causing the vehicle to roll over.

The turning radius of all heavy vehicles will be different. Make sure you understand the space required to make the sharpest turn for the vehicle that you are driving and make your turns accordingly.



Reversing

When reversing an articulated vehicle you must use the correct technique. Remember that the trailer moves contrary to the direction of the steering. Your driving instructor will advise you of the correct driving technique for the type of vehicle you are driving. Reversing into tight spaces, such as at a depot, at a construction site or into a loading bay, may require repositioning the vehicle several times. Do not be concerned about this. You are driving a large vehicle which has more limited turning capabilities than a small vehicle.

Tips for Reversing with a Trailer

1. Set up your vehicle so that the trailer is directly behind it, with all wheels pointing straight ahead.
2. Avoid sharp turns.
3. Reverse slowly. This allows you to make small corrections as you go, so that you stay on course.
4. Use all your mirrors which help you to see that the trailer is correctly positioned.
5. Correct any drifting off-course immediately by turning the steering wheel into the direction of the drift.
6. If necessary pull up, move forward and try again.

Changing Gears

Changing gears smoothly and at the right time will help you to keep a steady speed and keep your vehicle as close as possible to the speed of surrounding traffic. If you make gear changes at the wrong engine speeds, you will waste fuel and you could damage the engine by causing it to “labour” or over-rev. Gear changes made at the wrong engine speeds are bad for the clutch. Changing gears without using the clutch properly (“crunching” them) will also damage the transmission.

Double-clutching

Some vehicles with gear boxes need to be double-clutched to change gears. With most manual transmissions gear shifts are quicker and smoother if you double-clutch. To double-clutch, check that you do what the vehicle manufacturer’s handbook suggests on gear changes, and/or go through the following sequences:

- Press the clutch.
- Shift to neutral.
- Release the clutch.
- Adjust engine RPM (Revolutions Per Minute or revs) to vehicle speed needed for the change to next gear.

After a little while you will be able to hear what the correct revs are for each gear change. Either let the revs die down or press the accelerator pedal to get the revs correct, then:

- Press the clutch again.
- Shift to the gear you want.
- Release clutch.
- Accelerate to required speed.

Double-clutching requires practice. If you have trouble engaging your new gear, do not force it. Return to neutral, re-adjust your revs with the clutch pedal out, press the clutch pedal and try again.

Knowing When to Shift Gears

There are two ways of knowing when to shift gear. You could use either or both.

Engine speed (RPM). The vehicle manufacturer's handbook will specify maximum and minimum revs and road speed for each gear. Your vehicle may have a tachometer, which measures engine revs. If so use it.

Engine sound. After a while you will recognise, from the sound of the engine, when to change gear.

Changing down gears

There are special times when you should change down gears:

- Going up hills.
- Slowing or stopping.
- Before entering a bend.
- Before turning.
- Before starting down a hill.

Braking

You must be familiar with all braking devices and how they work for your vehicle. You should know what sort of braking system your vehicle has; whether it has hydraulic brakes or air brakes. You should also know the height, weight and width of your vehicle. Your instructor will give you further training as part of the vehicle training you have to undertake.

How Brakes Work

Most heavy vehicle brakes are designed to operate most effectively when the vehicle is loaded. When the vehicle is unloaded or only partially loaded, the braking performance is very different. So, take care and be sure you know how to control the different behaviours of the vehicle, whether it is loaded or unloaded.

Most heavy vehicles use air brakes rather than the hydraulic type brakes fitted to passenger cars. But some rigid vehicles do use hydraulic brakes.

All Brakes

Brakes should be applied with steady pressure initially, and then eased off as the vehicle slows. Just before the vehicle comes to a complete stop, brakes should be released enough to avoid a jerk and rebound, then applied again to hold the vehicle.

Effect of load. The heavier your load, the harder it is to stop and the more distance you need to stop. With a heavy load, you must brake earlier and harder.

Air Brakes

Air brakes are often used in heavier and multi-axle vehicles, and will feel different from hydraulic brakes. There is a delay of up to one second for air to reach the brakes after you push the pedal, and then it will take a further time for the vehicle to stop. This means that you need to think well ahead and brake much earlier than you would in a light vehicle.

Braking on Hills

Continuous heavy braking on a long hill will cause brake linings to heat up. After a while the brakes will no longer slow the vehicle. This is called “brake fade”. To help reduce brake fade, shift into a lower gear before starting down a hill. This will slow the vehicle down so that the brakes do not have to be used as much. However, it will not reduce the need to use the brakes altogether, so you need to be careful. When you reach the bottom of the hill you should shift back into a higher gear.

Brakes should not be fanned (alternately applied and released) except on slippery pavement where this type of braking gives better control, reduces danger of skidding and gives a shorter stop. Fanning reduces air pressure and serves no useful purpose on dry pavement and fanning on a long downhill grade may reduce air pressure below the minimum pressure needed for proper brake operation.

Braking With an Empty Vehicle

An empty vehicle, or one with a light load, is very different to handle. You notice this most when braking, steering and going up hills. You may need to adjust your braking if your vehicle is empty.





Part 7: Planning and Observing While Driving

Looking to the Right Place at the Right Time

Because you share the road with other drivers, you need to be looking around you all the time to know what other traffic is doing. You need to know the size of your vehicle and how it handles, so you can always have enough space between your vehicle and other vehicles that can accelerate and brake more quickly than you can.

You need to be observant and to look ahead.

Check in all directions around your lane. Failure to do so is a major cause of crashes. Heavy vehicle drivers need to look further ahead because stopping, changing lanes and turning takes more time in a heavy vehicle. You need more time to get ready to stop or move left or right.

What to Look For On the Road

How Far Ahead You Should Look

Because large vehicles take a longer time to slow down and stop, you should know what is on the road ahead, where you will be in the next 12 to 15 seconds. If you are not planning that far ahead, you may have to stop quickly or change lanes suddenly.

You also have to notice things closer to you, on each side and behind you. Check both sides, in your side mirrors and near and far ahead of your vehicle all the time.

What to Look For

In heavy vehicles you have the advantage of being higher, so you can see further down the road than the driver of a smaller vehicle. However, the height of your vehicle can also be a problem. Know how high your vehicle is and watch for low bridges, telephone and electricity wires, or any low over-hanging objects.

Traffic

Watch for cars entering the road in front, changing lanes or turning. Look for the indicators and brake lights of other vehicles or their unexpected movements. Keep a special watch for pedestrians crossing the road ahead. Be prepared to adjust your speed to avoid unexpected hazards.

Road Conditions

Watch for curves, merging lanes, potholes, slippery surfaces and loose sand. Always try to be aware of the road surface conditions and adjust your driving technique according to the conditions.

Workers on the Road

Be extra careful when driving through construction zones and areas where people are working on or near roads. When approaching a construction zone, slow down and obey all warning signs and people who are directing traffic through the area.

Whilst in the construction zone, drive carefully and adjust your speed and driving to suit the conditions. Obey posted speed limits, be ready for sudden stops and watch for workers and construction vehicles on the road. Give them more room to ensure everyone's safety.

Traffic control people are used at work zones to control traffic and prevent conflicts between construction activity and traffic. Whether you are driving at night or during the day, watch for traffic control people and follow their instructions.

Treat people working on roads with respect and be patient if traffic is delayed. Sometimes traffic in one direction must wait while vehicles from the other lanes pass through a detour. When the way is clear, move slowly and carefully around the obstacle.

Check for Road Signs and Traffic Signals

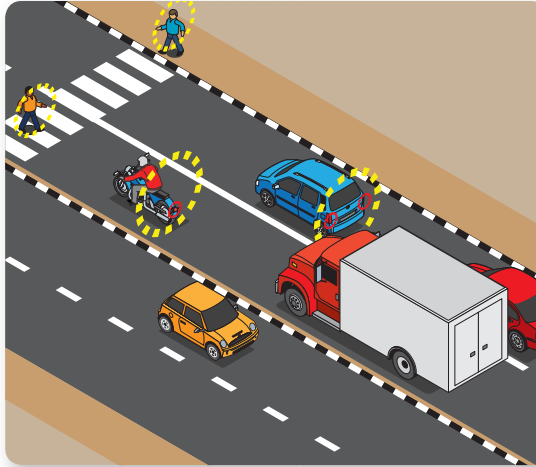
If a traffic light has been green for a long time, slow down and prepare to stop in case it changes to amber, then red before you get to it. At some intersections in Dubai the green light will start flashing to warn you that it is about to change to amber. Prepare to stop as soon as you see this happening.

Where there are parked vehicles, keep a special lookout for:

- Vehicles leaving the curb.
- Vehicles leaving driveways.
- Pedestrians crossing from between parked vehicles.

Other road users do not know how long it takes you to stop. They misjudge your speed, so you have to make allowances for other drivers' mistakes. Good professional drivers see hazards and understand how to act in time to prevent a crash. You are on the road for much longer periods than other drivers and so should be much more aware of what is going on around you. Keep scanning the road for anything unusual ahead of you. You should be able to identify hazards early and understand the need to adjust your driving.

Remember that you are driving a large, heavy vehicle and you must take responsibility for driving in a way that protects both your safety and the safety of those around you.



Regular Mirror Checks

Using Your Mirrors

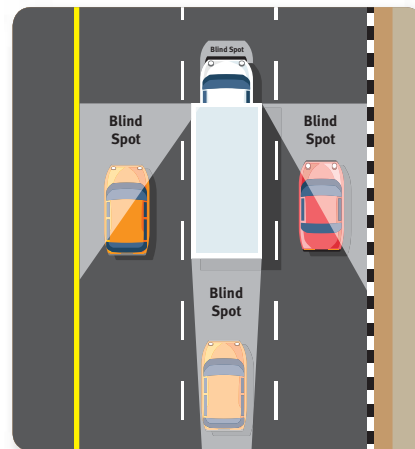
Use all mirrors to check traffic beside and behind you. Glance in your mirrors often. When you are looking in a mirror, you are not looking ahead. Do not glance in mirrors for more than one second at a time. When you are travelling at 60 km/h, you will have travelled nearly 17 metres in one second. At 90 km/h, you will travel 25 metres in one second. So glance quickly at all mirrors and back at the road ahead. Make sure that you understand what you see in your mirrors.

Use your mirrors to keep a check on your tyres. Especially watch out for tyre fires. You can use mirrors to check on your trailer. Also use the mirrors to check that your trailer is straight behind you, not drifting to one side.

Blind Spots

You need to check your mirrors often for overtaking vehicles, but there are some blind spots where the mirrors cannot help you. There are also other areas beyond the range of your mirrors. Smaller vehicles right behind you and level with the cab beside you are hard to see.

If you use your mirrors all the time, you may see them before they move into the blind spots. You will know that they are there.



When Changing Lanes, Turning or Merging

There are also mirror checks you must make when you change lanes, turn, merge into traffic and go through tight spaces.

Changing lanes. Before you change lanes, check your mirrors to make sure no-one is beside you or is about to overtake you. Check to be sure that:

- There is enough space.
- Your path is clear.

Turns. As you make a left turn, check your mirrors to make sure you will not hit any stationary vehicles parked or stopped close to the intersection of the street into which you are turning. Remember to allow space for the cutting-in of the rear end of your vehicle!

As you make a right turn, use your right mirror. Check that your rear wheels do not mount the curb, strike a post or hit a parked vehicle. Also be very careful to check that a car is not trying to overtake you on the right side.

Merge. When you are about to merge, use your mirrors to check that there is enough room for you to enter your new lane safely. Traffic behind may have sped up or changed lanes so that there is less room for your move.

Tight spaces. When driving through a crowded intersection or narrow road, keep checking your mirrors. Make sure you can get the full length of your vehicle through without hitting anything.



What to Watch Out For When Reversing

Because you cannot see what is directly behind you, reversing is risky. If you reverse, make sure you do the following:

Inspect your path. Check your line of travel before you begin. Make sure the road or surface will support the vehicle.

Check your clearance. Check for low, over-hanging objects.

Reverse slowly. This way you can easily correct steering errors and stop quickly.

Reverse and turn to driver's side. Because you see more in the left mirror than the right mirror, it is safer to reverse in by reversing to the left (driver's) side, where you can see more. Reverse and turn to the driver's side wherever you can. When turning towards the driver's side, you can watch the rear of your vehicle out the side window and in the left mirror. You cannot see as much in the right mirror. With a box trailer you will see nothing but the front right corner of the trailer in the right mirror.

Use a person to help guide you. You cannot see directly behind your vehicle. There are other blind spots. So use a person to guide you wherever you can. The guiding person should stand where they get the clearest view of your vehicle and can signal to you. You probably will not be able to hear your guide properly, so work out some hand signals for communication before you start.

A guide can see your blind spots and guide you through them.



How to Make Space Around Your Vehicle

To drive safely you need space all around your vehicle. Space gives you time to stop. Space gives you time to check your mirror and make a lane change. Manage your space all the time.

Space in Front

It is important that drivers remember to keep a safe distance between themselves and the vehicle in front of them. Heavy vehicles require much more space to stop than small vehicles. It is necessary to leave a space of at least three seconds in front of your vehicle when you are travelling at a low speed and over five seconds if you are travelling at 80km/h. Check the table above to see how much space you need to leave while travelling at different speeds.

Counting time to create space in front of your vehicle	Speed km/h – Seconds behind vehicle in front
	25 km/h →→→→→→→→→→ 3.0 secs
	40 km/h →→→→→→→→→→ 3.5 secs
	60 km/h →→→→→→→→→→ 4.5 secs
	75 km/h →→→→→→→→→→ 5.0 secs
	90 km/h →→→→→→→→→→ 5.5 secs
	100 km/h →→→→→→→→→→ 6.0 – 7.0 secs

It is important to remember that the table gives space for vehicles:

- With good tyres and brakes.
- Driving on good quality, sealed roads.
- Driving on dry roads.

To count the seconds between you and the vehicle in front, count off the seconds from when they have passed a fixed object. Stop counting when the front of your vehicle reaches the same object. If you are not enough seconds behind the vehicle in front, ease off the accelerator.

Count the seconds required by saying these words slowly to yourself:

- One thousand and one.
- One thousand and two.
- One thousand and three and so on.

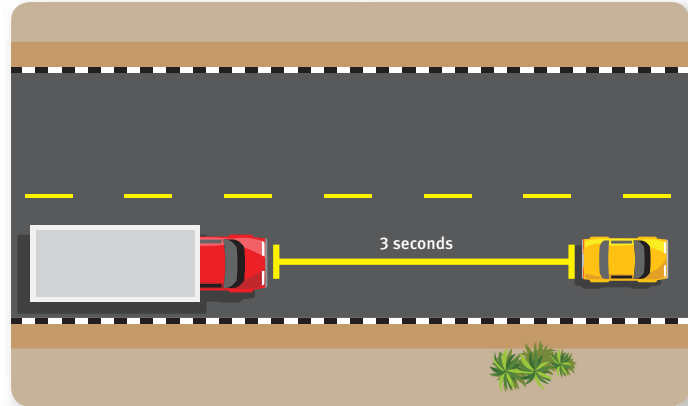
Space Behind Your Vehicle

You cannot force other vehicles to stay a safe distance behind you. But you can make sure that you do the best you can in managing space around your vehicle. Heavy vehicles are often “tailgated” when they cannot move as fast as other traffic, for example when going up a hill with a heavy load. Tailgating is when another vehicle drives too closely behind you.

Handle Tailgaters Safely

When being tailgated, follow these tips:

- Slow down gradually if safe to do so. This will encourage other drivers to overtake.
- When turning, merging or changing lanes avoid quick changes of speed, slow down gradually and signal early.
- Increase your following distance – the distance between yourself and the vehicle you are following. Opening up more room in front of you reduces the risk of having to make sudden changes to speed and direction.
- Do not speed up. Tailgaters will tend to stay behind you and a slow speed is safer.



Changing Lanes

If you want to return to your lane after overtaking another vehicle, the extra length of your heavy vehicle makes it hard to judge whether you can change lanes safely. You should follow these tips:

- When in doubt leave plenty of space and time.
- Use your mirrors to check that you can see the vehicle behind you before moving back into your original lane.

Drive in the Centre of Your Lane

To keep a margin of safety on both sides of your vehicle, drive in the centre of your lane.

Space Above Your Vehicle

Know the height of your vehicle and your load. Be cautious when going under trees, bridges, overhead signs, traffic lights, power lines and other wires.

Space for Turns

Space around a heavy vehicle is very important for turns. Because of cutting-in, heavy vehicles often sideswipe other vehicles and objects during turns.



Right Turns

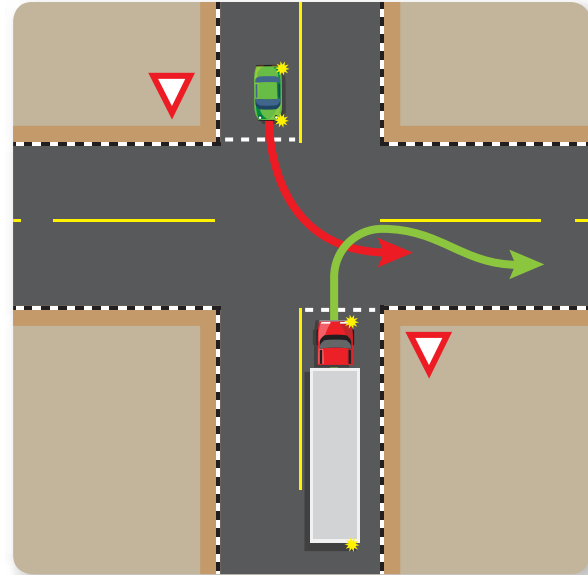
Intersection markings are often too tight for large vehicles. It is likely that you will have to approach the turn wide to make a right turn. Try to place your vehicle so that others behind cannot overtake on your right. Make sure you have the best view possible of the road into which you are turning. If you are towing a trailer or are driving a semi-trailer, turn as wide as you need so that your trailer safely enters the right lane of the road into which you are turning.

Heavy vehicle drivers need to start a right turn further into an intersection than a car. This way, the back wheels do not run over the curb. The longer your vehicle, the further into the intersection you have to drive before you start turning.

If you are driving a vehicle that does not have power steering, you will need to start turning earlier and give yourself more room than if you are driving a vehicle with power steering. Make sure that you make the appropriate adjustments.

Remember Your Vehicle's Length

Be careful of oncoming traffic in the street into which you are turning. Watch the cut-in of the back of your vehicle. Use your right mirror to check that you will clear poles and parked cars on your right.





When there are two right turning lanes, always start your turn so you are mostly in the turning lane that is furthest to the right. If you only use the right turning lane that is closer to the centre of the road, a car may try to move into the lane on your right. The car driver will not expect your vehicle's rear to move into their lane as the back of your vehicle cuts in. Remember, vehicles on your right side are always harder to see in your mirrors.

When there are two right turning lanes, always start your turn so you are mostly in the turning lane that is furthest to the right. If you only use the right turning lane that is closer to the centre of the road, a car may try to move into the lane on your right. The car driver will not expect your vehicle's rear to move into their lane as the back of your vehicle cuts in. Remember, vehicles on your right side are always harder to see in your mirrors.

Left Turns

Make sure your vehicle is close enough to the middle of the intersection before you start to turn to allow for the rear of your vehicle's cut-in. The back of your vehicle could hit cars waiting at the intersection. The longer your vehicle, the more you have to allow for cut-in.

Two Left Turning Lanes

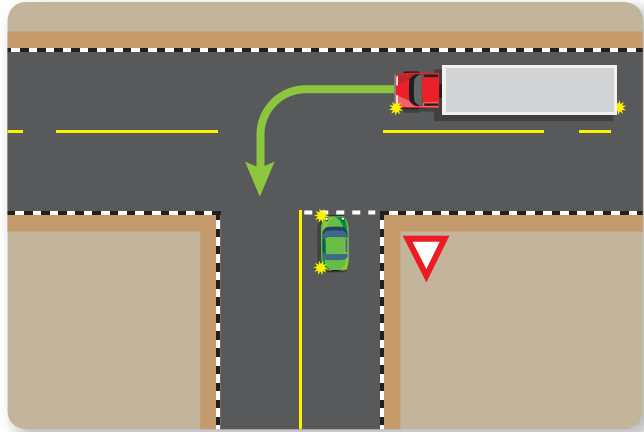
If there are two left turning lanes, always start your turn so you are in the left turning lane nearest to the right of the road. Check your right mirror for cars overtaking on your right side, which may turn to the left in front of you.

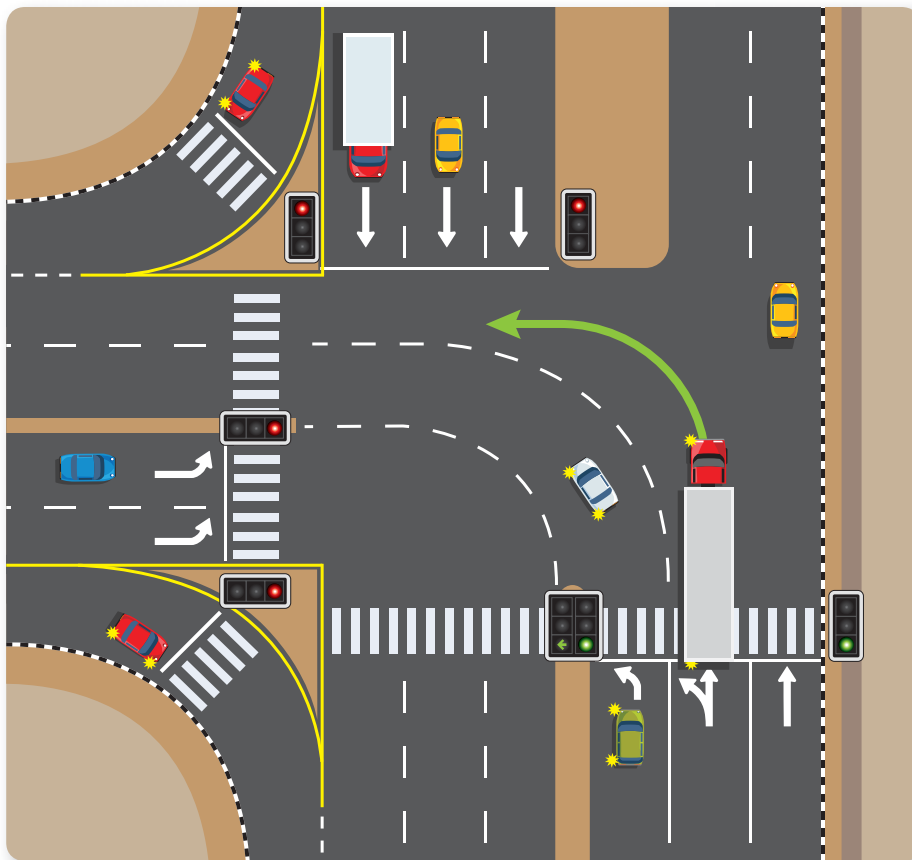
Use your left mirror to check for traffic that might overtake on your left.

Leaving Space When Turning Across Intersections

You need to allow for the size and weight of your vehicle when you turn. Remember:

- Your acceleration is slower and you need a large amount of space. You must have a large gap in traffic to turn into a new street.
- If your vehicle is loaded, it will be slower than when it is empty.
- You need to judge a gap in the traffic that is big enough for you. You need to get all of your vehicle safely through the intersection.





What is Hazard and how to Avoid them

In driving, a hazard may be defined as “anything (moving or not moving) that can cause the driver to change direction, position or speed of the vehicle”.

Avoiding hazards and staying safe require skills to anticipate and forecast what may happen and have the ability to make quick decision on the appropriate actions/reactions.

Knowing what to look for (hazards) in different situations is an important skill that will keep you safe.



Look at the above scenario and see if you can identify the possible driving hazards.

Analyzing the scenario for hazards

Closer look at the scenario reveals the following hazards:

1. The person on the right ahead - trying to hail a taxi may start the chain of events.
2. Taxi on the left has reacted and may just turn right to pick up the person on the right (and suddenly stop in front of you).
3. Notice the grey vehicle ahead with its reverse lights on.
4. The white car in front may stop suddenly in reaction to the reversing grey car.



Some Important Considerations to Avoid hazards

- **See far and wide (scanning)** – See wider and farther and actively taking in the scenario and continually filtering for possible hazards.
- **Anticipate** – read the movement of other road users around and anticipate their next actions. Take note of their speed, direction, way of driving and distance from you.
- **Control and adjust your Speed** – Slow down and cover the brake pedal, this reduces your reaction time.
- **Be aware of yourself** – Your physical and mental condition affects your driving. If you are ill or sleepy, your reactions will be slower.
- **Stay calm** – Being calm helps you stay in control of yourself. This way you are able to adjust to changing situations and not become a hazard to yourself or to others.

Test Yourself Questions

(Answers to Test Yourself Questions are upside down at the bottom of this page)

Q1 Cut-in means that:

- A The rear wheels follow a longer path than the front wheels.
- B Both sets of wheels follow the same path.
- C The rear wheels follow a shorter path than the front wheels.

Q2 The best way to use your mirrors is to:

- A Look in each mirror for 1 second.
- B Glance in your right mirror and then look over your shoulder.
- C Glance quickly in all mirrors and then back at the road ahead.

Q3 You should handle tailgaters by:

- A Gradually slowing to encourage them to overtake.
- B Flashing on your brake lights to warn them they are too close.
- C Getting off the road onto the shoulder to let them overtake.

Answers Q1C Q2C Q3A







Part 8: Sharing the Road with Others and Speed Management

When you are driving, you know what you are about to do, for example change lanes or make a turn. Other drivers do not know, unless you show them. If you make sure that other drivers know that you are there and what your plans are, you can help to prevent crashes.

Driving Courtesy

The road is there for all road users. You should always show courtesy and patience to other road users. Your vehicle will obscure the view of drivers behind you. They may not see a red traffic light ahead. Give drivers behind you as much warning as possible of your intentions to slow down or stop.

You should never travel closely behind another vehicle, particularly a car, as it can be intimidating and viewed as aggressive behaviour.

Maintaining a positive attitude whilst driving will help to reduce stress and enable you to remain focused on the road.

Driving When Angry

Drivers do not always do the right thing and often make mistakes on the road. Some people get angry because of a mistake or action of another driver and become violent.

You can avoid becoming a victim of another driver's anger easily by:

- Showing that you know you have made a mistake, if you have made one.
- Keeping calm and keeping your distance from other vehicles – do not tailgate.
- Driving cooperatively and considering other people on the road.

Dangerous Driving Behavior

Heavy Vehicle drivers are professional drivers and they are expected to drive skillfully and at very high standards of safety. As such vehicle drivers need to be aware that there are such things as dangerous driving behavior and should be avoided at all cost:

1. Driving too fast for the situation. It gives you very little time to react to avoid a crash.
2. Tailgating or driving too close to the vehicle in front. This usually causes other drivers to be distracted or become tense or suddenly change lanes which increase the risk of a crash.
3. Flashing headlights or honking the horn to intimidate other drivers. It creates tension among other drivers on the road.
4. Cutting-in front of other drivers or jumping the queue just to get a few meters ahead. This causes annoyance among other drivers and aggravates the traffic situation.
5. Not signaling lane changes - It increases the crash risks as other drivers are not prepared for the unexpected lane change.
6. Driving slowly in the fast lane - this practice is equally dangerous as over speeding as it requires other drivers in the fast lane to brake or change lanes to avoid the slow vehicle. Always use the slow lane and use only fast lane only when overtaking.
7. Ignoring priority rules - When give way and stop signs are prominently posted but drivers disregard them or when suddenly entering the main road without regard to the other drivers already in it or when ignoring the presence of pedestrians crossing the road.
8. Intentionally pushing in or blocking other drivers signaling to turn or change direction. This causes tension among drivers.
9. Using a mobile phone while driving (even with hands-free kit) – this reduces the driver's concentration from the driving task. This may also cause the car to slow down or speed up (for no reason), wander across road lanes, make sudden turns without indicating.
10. Driving under the influence of alcohol or drugs. There is zero tolerance for drink driving in Dubai. You risk being fined, jailed or your license confiscated and your vehicle impounded. You also compromise your safety and the safety of others.

Remember, if you drive aggressively it is likely that you will intimidate other drivers simply because of the size of your vehicle. Most importantly, it is likely that you will get into a situation that you will not be able to get out of. You will not have time to stop or take evasive action, which might result in a major crash causing serious injury or even death.

Role Model Driving Behavior

Driving in a safe manner is something that all drivers are capable of doing. It is a matter of choice. We can drive in a way that can be a role model for other drivers by doing the following:

1. Driving within the speed limit or at a speed appropriate to the situation.
2. Driving at a safe distance from the vehicle in front, of at least 4 seconds, in normal traffic. Increase following distance if driving condition is bad. Use the height of your vehicle to see farther and anticipate hazards early.
3. Allow for extra travel time. This will avoid over speeding or sudden changes in your directions. You will in turn arrive at the destination more relaxed and fresh.
4. Focus on your driving. Avoid using the mobile phone or doing any other activities that may cause distraction while driving.
5. Use the indicators properly when changing lanes or changing directions. This will give other drivers more time to react appropriately.
6. Show consideration to other road users and obey traffic rules. This improves traffic flow and avoids conflict with other drivers or pedestrians. There may be times when you need to give way even if you have the priority just to avoid conflict with those who ignore the rules.
7. Allow for the mistakes of others. If other drivers make mistakes and cause inconvenience to you, do not retaliate. Remain calm and drive cooperatively with other drivers.
8. Drive at the slow lane. You will be able to drive relaxed, you will not be forced to speed up and you avoid conflict with those who want to travel at higher speeds.
9. Plan journey in advance. Knowing exactly where you are going will help make your journey safer and more pleasant and allow you to reach your destination in time.
10. Drive at your best condition. Driving safely demands alertness of the mind and quick reflexes of the body. This is badly affected if the driver is under the influence of any intoxicating substance or is tired or sleepy.

Remember, if you drive aggressively it is likely that you will intimidate other drivers simply because of the size of your vehicle. Most importantly, it is likely that you will get into a situation that you will not be able to get out of. You will not have time to stop or take evasive action, which might result in a major crash causing serious injury or even death.

Communicating Your Presence to Other Drivers

Make sure other road users know where you are when things such as these happen:

- **Overtaking.** If you are overtaking another vehicle, a cyclist or a pedestrian, assume that they do not realise where you are. If necessary, a light tap on the horn will warn them of your presence without scaring them. People who are suddenly scared may swerve out into your path.
- **Another driver unexpectedly signals a turn or turns without signalling.** Although this is bad driving practice, it does happen. So be prepared to react quickly. If necessary, sound your horn.
- **It is hard to see.** At sunset or sunrise, in sand storms or rain, a heavy vehicle can be just as hard to see as any other vehicle. Also, keep a careful look-out for motorcyclists and cyclists at times when it is hard to see.
- **Parking at the side of the road.** You should only park where your vehicle will not obstruct other traffic and where local regulations allow.
- **Parking requirements during the day.** Use hazard warning lights if you are stopped and there may be a danger to traffic.
- **Parking requirements during the night.** Use all required parking lights and use hazard warning lights if there may be danger to traffic.

If your vehicle is disabled, there are guidelines to follow:

- At all times. If possible, you should park your vehicle on the side of the road or a part of the road not used by the main body of traffic.
- During the day. Use reflective triangles and hazard warning lights if your vehicle could be a danger to other traffic.
- At night. You should have all lights switched on and, if your vehicle could be a danger to other traffic, use your hazard warning lights.

Reflective Triangles

You must display reflective triangles if your vehicle, or any part of your load that has fallen onto the road, is not clearly visible for 200 metres in any direction. You should put one triangle between 50 metres and 150 metres in front of the vehicle or fallen load, one at least 50 metres to the rear of the vehicle and one on the side of the vehicle or fallen load in a position that gives sufficient warning to other road users.

Clearance Lights

If your vehicle is over 2.2 metres wide, all clearance and side-marker lights must always be on at night when stopped or parked on a road, unless there is sufficient street lighting for you to be easily seen. If your vehicle is less than 2.2 metres wide, it must have its parking lights on. If any of the lights are not working, you must use reflective triangles.

Yellow Load Lights

Trucks are required to have revolving yellow lights on the roof of the cabin, which must be switched on when the truck is loaded and moving. They must be switched off when the truck is not loaded.



Signalling Your Intentions

You are legally required to show other road users what you are going to do when making turns or lane changes:

- **Signal early.** Make sure that it is safe to turn and then signal early to give sufficient warning to other road users before starting a turn or lane change.
- **Keep the signal going.** Do not cancel the turn signal until you have completed your turn or lane change.

Managing Speed

Managing speed is one of the important parts of safe driving.

In Dubai, overspeeding or excessive speed contributes to up to 80% of all injury crashes. There is a clear link between speed and crashes.

Good drivers can reduce this risk by choosing to:

- Drive more slowly.
- Scan the road ahead for possible hazards.
- Increase the space between them and the car in front.
- Stay behind rather than overtaking.
- Always travel at a speed that will allow enough time for them to brake.

The faster you are going, the more distance you will cover between seeing a situation where you need to use the brake and actually getting your foot on the pedal to start braking.

Also, the faster you are going, the more distance you will cover while braking before you actually stop. The following table gives some figures for a typical heavy vehicle on dry roads.

Stopping distances for different speeds assuming – dry road, roadworthy tyres, fit and alert driver.

Speed Kilometres per hour – kmh)	Distance travelled (Metres per second – m/s)	Metres (m) travelled when you see you have to stop until vehicle begins to slow down	Metres travelled while braking	Total stopping distance in metres (m)
20 kmh	5.6 m/s	14	9	23
40 kmh	11.1 m/s	26	27	56
60 kmh	16.7 m/s	42	56	97
80 kmh	22.2 m/s	56	102	156
100 kmh	27.8 m/s	69	145	214

These figures are based on research into the capabilities of an average driver. The distance travelled while braking and the total stopping distance will vary according to conditions. What this means for you is that the faster you are travelling, the more time and distance you have to allow before you can stop.

Adjusting Speed

There is no single safe speed. You must adjust your speed for the road surface. Be careful with slippery surfaces. It takes much longer to stop or turn on slippery roads. If the road is sandy or wet, reduce your speed by 15-30 km/h.

Bends

The faster you are travelling, the harder it is to turn and the more distance it takes to turn. If you turn too fast, you may end up in a skid.

Adjusting your speed before taking a bend is important in a heavy vehicle because of its high centre of gravity. If you take a bend too fast your wheels could skid, the vehicle could roll over or the load could move or even roll off the vehicle. Ease off the accelerator and change down your gears before entering the bend.

How Far Can You See?

Adjust your speed according to how far you can see. Look at the table on the previous page to see the difference between seeing distance and stopping distance. You should drive at the speed that will let you stop within the distance you can see ahead of you.



Driving In Fog

As a heavy vehicle driver, you may be driving during night time frequently. During these times you are likely to encounter foggy driving conditions. Fog is like a cloud at ground level and can be very dense in some areas and light in some. This creates visibility problems and very dangerous driving conditions especially on the months when the weather is changing (start or end of summer in the UAE). Learn the Do's and Don'ts on driving in the fog safely:

Do:

1. Slow down gradually and drive at a speed that suits the conditions.
2. Make sure the full lighting system of your vehicle is turned on.
3. Use your low beam headlights. High beams reflect off the moisture droplets in the fog, making it harder to see.
4. If you have fog lights on your vehicle, use them, in addition to your low beams. They will help increase visibility.
5. Be patient and avoid changing lanes and/or crossing traffic.
6. Use pavement markings to help guide you. Use the right edge of the road as a guide, rather than the center line.
7. Increase your following distance. You will need extra distance to brake safely.
8. Look and listen for any hazards that may be ahead.
9. Reduce distractions in your vehicle. For example, turn off the cell phone . . . your full attention is required for driving.
10. Watch out for any electronically operated warning signs.
11. Keep looking as far ahead as possible.
12. Keep your windows and mirrors clean. Use your defroster and wipers to maximize your vision.
13. If the fog is too dense to continue, pull completely off the road and try to position your vehicle in an area away from other traffic. Turn on your emergency (hazard) lights.

14. Before you drive, and during your trip, check weather forecasts and road reports. If there is weather warning or reports of poor visibility and driving conditions, delay your trip until conditions improve, if possible.

Don't:

1. Don't stop in the middle of the road. You could become the first link in a chain reaction collision.
2. Don't make sudden stops. The vehicles behind you may not be able to see you in time.
3. Don't speed up suddenly, even if the fog seems to be clearing. You could find yourself back in fog.
4. Don't speed up to pass a vehicle moving slowly or to get away from a vehicle that is following too closely.
5. Don't continue driving if the fog is too dense and the visibility is greatly reduced. Remember, to be late is better than not to arrive at all.

Remember:

1. Watch your speed. You may be going faster than you think. If so, reduce speed gradually.
2. Leave a safe braking distance between you and the vehicle ahead.
3. Remain calm and patient. Do not pass other vehicles or speed up suddenly.
4. Do not stop on the road. If visibility is decreasing rapidly, pull off the road into a safe parking area and wait for the fog to lift.
5. When visibility is reduced, use your low beam lights.



Slow down, adjust your speed and allow enough space from the vehicle in front of you.

Driving in Rain / Floods in Dubai

Rain makes road surfaces slippery, especially as the first drops fall. With more rain, tyres make less contact with the road.

Flooding in Dubai occurs very rarely as heavy rains are not very common. But when heavy rains come, heavy flooding also happens in many areas of the city.

Drivers need to be extra cautious when driving through flooded areas as it is difficult to guess how deep the water really is. You can only see the surface of the water, you can not see if there are hidden dangers in the path you are taking like sharp objects or deep holes.

To be safe and if at all possible, it is best to avoid driving through floods. But if you must drive through flood, do so carefully keeping in mind the following:

- a. For regular saloon cars, check if the flood water is above 50% of the tire height and if this is the case, do not drive through. There is a very good chance that water may enter the exhaust pipe and stall the engine.



- b. Do not drive through fast moving water even if the water level is at or below 50% of the tire height. The force of the flood water may sweep your car away.
- c. Engage low gear, drive slowly while maintaining smooth acceleration and revving the engine (by slipping the clutch) to prevent the water from entering the exhaust pipe.
- d. Show courtesy. Driving at speeds through flood can cause water to splash on the sides and soak other motorists or pedestrians.

Once you successfully passed the flooded area, avoid speeding as your brakes will not be as efficient due to moisture. You must step on your brakes repeatedly to help remove the moisture in it until the brakes efficiency is restored.

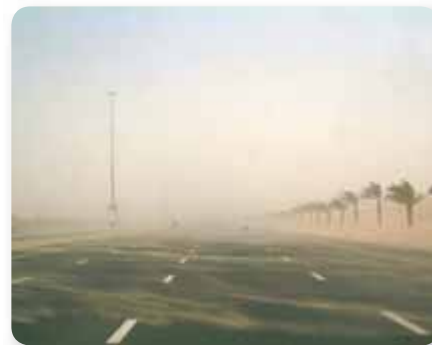
Modern cars have sensitive electronic components that may malfunction when submerged. Have your car checked immediately after driving through flooded area.

Driving in Sand Drifts

Sand on the roads can be dangerous, as tyre grip is reduced and it can be more difficult to work out where the edge of the road is. Dust from vehicles coming towards you may hide unexpected hazards, such as other vehicles, a dip or a corner. Dust thrown on to windows can also stop you from being able to see. Slow down and keep a safe distance from the vehicle in front.



Drive at a speed that is safe for the road conditions, because you may need longer time to come to a stop.



Driving in Congested Traffic

The increasing popularity of Dubai as both a work and tourist destination has seen an increase in the number of vehicles on the roads. Increased traffic means there are times when the traffic becomes congested or blocked.

You may choose to avoid heavy traffic by planning to drive at times that are less busy. If you must drive when the traffic is heavy, you should plan to take the least busy route. Allow more time for your trip at busy times, stay calm and be courteous to other drivers who may not be as patient as you.



Congested Traffic is a challenging environment especially for new drivers. The frequent stopping and accelerating can cause impatience among drivers. This can lead some drivers to suddenly change lanes without indicating. Pedestrians may emerge from areas obstructed by other vehicles. Be patient, take extra pre-cautions and allow for unexpected actions of other road users.

Plan well ahead so you know which lane you will need to get into to reach your destination. Allow yourself plenty of time to move into the appropriate lane. Take extra care checking your blindspots as you may be changing out of a lane at the same time as another driver is planning to move into your lane.

When cars are waiting to merge from side streets, it may be difficult for them to find a gap in the traffic to allow them to merge. Sometimes these drivers become impatient and push their way into the direction of the traffic. You will need to be alert for this so that you can react in time. Be courteous. Allow drivers to enter the lane of traffic at least one vehicle at a time.





Test Yourself Questions

(Answers to Test Yourself Questions are upside down at the bottom of this page)

Q1 When stopped in a dangerous position on a road, you should:

- A Sound your horn.
- B Switch on your hazard warning lights.
- C Stand well clear of the vehicle.

Q2 When the road is slippery, you should:

- A Drive slowly and carefully.
- B Watch out for road speed sign warnings.
- C Change up your gears.

Q3 Reflective triangles should be used:

- A At night when it rains.
- B If your vehicle cannot be seen from a distance of 200 metres in any direction.
- C If your vehicle is parked more than 100 metres from a corner.







Part 9: Vehicle Emergencies

Emergency Braking

If someone pulls out in front of you, it is a natural response to brake. This is a good response if there is enough distance to stop and you use your brakes the right way and check mirrors for vehicles behind you.

Braking the Right Way

You need to brake in a way that will keep your vehicle in a straight line and allow you to turn if you have to. The best way of doing this is:

- Apply your brakes just hard enough to almost lock the wheels.
- If the vehicle starts to skid, release the brake so the vehicle straightens out.
- As soon as the wheels start rolling, apply the brakes again a bit more gently.

Skids

Skids occur when tyres lose their grip on the road. Skids are primarily caused by the actions of the driver, regardless of the condition of the road. Skids will not occur if the driver is driving carefully and watching out for unexpected traffic movements and changes in road conditions. This is because you will not need to:

- Over-brake - when you apply the brakes too hard and lock the wheels.
- Over-steer - when you turn the wheels more sharply than the vehicle can turn.
- Give too much power to the drive wheels, causing them to lose grip and spin.

Skids can be avoided by ensuring that you do not put yourself in a position where these are necessary.

Drive-wheel Skids

The most common sort of skid is the sort where the drive wheels lose traction because of applying the brakes too hard or giving too much power to the drive wheels, causing them to spin and lose grip. They are stopped by easing off the accelerator.

Drive-wheel Braking Skids

These happen when you put too much pressure on the brake pedal for the road conditions. The drive wheels lock and the vehicle skids. In a rigid vehicle, the whole vehicle will slide sideways. A rigid vehicle with trailer attached will be even more difficult to control and correct.

In an articulated vehicle, or when towing a semi-trailer, a rear wheel skid is worse because:

- The semi-trailer pushes the back of the prime mover or rigid vehicle sideways.
- The semi-trailer can swing around to “jack-knife” until it hits the cab of the prime mover or the rigid vehicle. A “jack-knife” movement of an articulated vehicle happens when it folds against itself in a skidding movement.

How to Correct a Drive-wheel Braking Skid

Stop braking. This lets the drive wheels start rolling again, restores traction and the wheels stop sliding sideways.

Steer in the direction you want to go.

Counter-steer. As the vehicle comes back on course, it has a tendency to keep on turning. You may need to correct this by briefly steering in the opposite direction (counter-steer) to prevent skidding in the opposite direction.

Front Wheel Skids

In a front wheel skid, the front end tends to go straight ahead, no matter how you turn the steering wheel. If the surface is slippery you can fail to make it around a turn or a bend. When you have a front wheel skid, release the brakes and/or ease off the accelerator and make sure the wheels are turning before using the brakes again.

Evasive Steering

Stopping may be the safest thing to do in an emergency. When you do not have enough room to stop, or you are not sure whether you can stop, you will have to steer and turn away from whatever is in your path. Remember, you can often turn more quickly than you can stop. But also remember that a heavy vehicle will tend to continue in a straight line, because of its mass and momentum.

Keep both hands on the steering wheel. In order to be able to turn quickly, you must have a firm grip on the steering wheel with both hands. If you do not, you may not be able to exert enough force to turn the wheel quickly.

Emergency Steering Techniques

A quick turn can be made safely, if it is done the right way. This can be done quickly if both hands are correctly positioned on the steering wheel.

Use a steering method that allows quick and accurate control of the steering wheel. Your instructor will assist you with this. Remember:

- **Do not brake** while you are turning.
- **Do not turn any more than needed** to clear whatever is in your way.
- **Be prepared to “counter-steer”**. That is, to turn the wheel back in the other direction, once you have passed whatever was in your path. Unless you are prepared to counter-steer, you will not be able to do it quickly enough. You should think of emergency steering and counter-steering as two parts of the one driving action. Always keep these steering movements to the minimum required to avoid the obstacle.

Where to Steer

If an oncoming driver has drifted into your lane, move to the right. Realising what has happened, the other driver's natural response will be to return to their own lane. If a vehicle has stopped in your path, the best escape route will depend upon the situation. Because you have been using your mirrors, you will know which lane is empty and can be used safely. If the shoulder on the right side is clear, that may be your best choice. If you do not have a clear lane, or aren't sure, a move to the right is best. At least you will not force anyone into an opposing lane and cause a crash. A lane change is almost always better than crashing into the vehicle in front of you.

Leaving the Road

In some emergencies, you might have to leave the road. Almost all drivers are fearful of driving on the unpaved edge of the road. But it is better than colliding with another vehicle. Here are some guidelines if you have to leave the road:

- **Avoid braking.** If possible, avoid using the brakes until your speed has dropped. Then brake very gently to avoid skidding.
- **Stay on the shoulder.** If the shoulder is clear, stay on it until your vehicle has come to a stop.

Using the Horn

A blast on the horn may stop whatever is causing the emergency. For example, use it when:

- A driver in a side street starts to move into your path.
- A pedestrian is about to step onto the road in your path.
- A driver beside you is moving towards your vehicle.

If sounding the horn is unsuccessful, you should be ready to execute evasive action.

Dangerous Vehicle Emergencies

There are three vehicle emergencies that can be very dangerous:

- Brake failure.
- Tyre failure.
- Fires.

1. Brake Failure

Brakes kept in good condition rarely fail. Most brake failures occur for the following reasons:

- Loss of air pressure.
- Loss of hydraulic pressure.
- Brake fade on long hills.
- Poorly maintained brakes.

Loss of air pressure

A loss of air pressure can be caused by a leak in the air lines or over-use of the brakes. When this happens, stop as quickly as you can. The first thing to do is change down gears and keep changing down gears, for as long as it is safe to do so. Once your vehicle is moving slowly, apply the brakes.

You may have enough pressure to bring the vehicle to a stop. If the air supply is gone, the emergency brakes will come on and bring the vehicle to a stop. Be prepared for the wheels to lock up and skid.

Loss of hydraulic pressure

Not all vehicles with hydraulic brakes have emergency braking systems. If your vehicle is one of these, you will have to bring your vehicle to a stop by other means when hydraulic brakes fail.



Here are some things you can do:

- Change down gears. This will help to slow the vehicle.
- Pump the brakes. Sometimes pumping the brake pedal will produce enough hydraulic pressure to stop the vehicle.
- Use the parking brake. The parking brake is separate from the hydraulic brake system, so it can be used to slow the vehicle.
- Find an escape route. While slowing down, try to find an escape route.

Brake fade on long hills

If the brakes have failed, you will have to look outside your vehicle for something to stop it. Take the best escape route you can, such as an open piece of land, or a side road that flattens out or turns uphill. Make the move as soon as you cannot control the vehicle. The longer you wait, the faster you will go, so it will be harder to stop.

2. Tyre Failure

Tyre failure on one of the drive wheels or trailer wheels will not usually cause a crash. Failure of one of the front tyres could cause a loss of steering control.

Recognise failure signs

If you know that you have a tyre failure, you can do the right thing and do it quickly. The main signs of tyre failure are:

- **Sound.** Although many tyre failures cannot be heard, the loud “bang” of a blow-out is an easily recognised sign.
- **Vibration.** If the vehicle thumps or vibrates heavily, it may be a sign that one of the tyres has gone flat. With a rear tyre, this may be the only sign you get.
- **Feel.** If the steering feels “heavy”, it is probably a sign that one of the front tyres has failed.

If your tyres have failed, you should:

- **Grip the wheel firmly.** When a front tyre fails, it can twist around the rim, exerting such a powerful force that it could snatch the steering wheel out of your hands. The only way to stop this happening is to have a firm grip on the steering wheel with both hands. Keep your thumbs out from under the spokes of the wheel. Your thumbs could get broken if the steering wheel snaps around before you can get control of it.
- **Steer in the opposite direction to the tyre failure if it is a front tyre.** This will ensure that the vehicle continues to travel in a straight line. So, if a front left tyre fails, steer to the right and if a front right tyre fails, steer to the left.
- **Stay off the brake.** It is natural to want to brake in an emergency. However, in a tyre failure it could make the wheels lock up and result in a skid. Unless you are about to run into something, stay off the brake until the vehicle has slowed down.

3. Fires

Vehicle fires are a frequent cause of damage and injury. Learn the cause of fires and how to prevent them. Know how to extinguish fires. All heavy vehicles should have fire extinguishers, by law buses and fuel tankers **must** carry them at all times.

Causes of fire

The major causes of large vehicle fires are listed below. All of these fire causes can be avoided.

- **Crashes.** Spilled fuel after a crash.
- **Tyres.** Under-inflated tyres and dual tyres that touch each other.
- **Brakes.** Excessive use of brakes on hills can cause linings to over-heat and ignite the wheel lubricant.
- **Wheel bearings.** Not enough lubricant.
- **Electrical system.** Damaged insulation, loose wires.
- **Exhaust system.** Lack of proper insulation, sparks or hot exhaust gas coming into contact with loads that are easy to burn.

- **Fuel.** Driver smoking, improper fuelling, loose fuel connections.
- **Load.** Flammable loads, improperly sealed or loaded, poor ventilation.

Fire prevention

If you make the following checks, you will reduce the chance of a fire:

- **Pre-trip inspection.** Make a complete inspection of the electrical, fuel and exhaust systems, tyres and load.
- **During the trip inspections.** Make sure you check the tyres, wheels, and vehicle body often for signs of heat.
- **Follow safety procedures.** Follow the vehicle manufacturer's handbook safety procedures for fuelling the vehicle, using brakes and other actions that could prevent a fire.
- **Monitoring.** Check the instruments and gauges often and use the mirrors to look for signs of smoke from tyres or the vehicle.
- **Caution.** Use normal caution in handling anything flammable.

Fire fighting

There should be special instructions for vehicles carrying hazardous goods in bulk. Know these instructions and follow them. Fires can be made worse by drivers who do not know what to do when they have a fire. Here are some steps to follow in the event of a fire:

- **Pull off the road.** The first step is to get the vehicle off the road and stop. In doing so:
 - Park in an open area away from buildings, trees, bushes, other vehicles or anything that might catch fire.
 - Do not pull into a service station.
- **Stop the engine.**
- **Notify emergency services.** Use your mobile telephone to notify the police or fire department of your problem and your location.
- **Isolate battery or batteries** if possible.
- **Stop the fire from spreading** if it is safe to do so.
- **Use the correct extinguisher.** Using the wrong type of extinguisher could spread the fire and make it worse.
- **Know the type of extinguisher** that is in your vehicle. Make sure you've read the extinguisher's instructions before driving.

Putting out the fire

Here are some rules to follow when you have to put out a fire:

- **Know how the fire extinguisher works.**
- **Stay away from the fire.** Use the full squirting distance of the extinguisher.
- **Aim at the source** or base of the fire, not up in the flames.
- **Position yourself upwind.** Let the wind carry the extinguisher contents to the fire.
- **Continue using the extinguisher until whatever was burning is cool.** No smoke or flame does not mean the fire is out.

Vehicle breakdown

If case of vehicle break down , it is very important to consider the safety of self as well as other road users. This is even more so if the breakdown occurs on roads where vehicles travel at high speeds.

Move Away from Traffic

If at all possible, move your vehicle to the road side away from the path of the speeding vehicles. While doing so, use every means possible to alert other drivers of your situation to avoid causing sudden, last second reactions from other drivers. Failing to do this may result to fatal crashes.

If the vehicle is unable to move at all, use hazard lights, early warning devices or call the police for assistance in order to remove your vehicle away from dangerous path of speeding vehicles.



Test Yourself Questions

(Answers to Test Yourself Questions are upside down at the bottom of this page)

Q1 The chances of a skid are increased by:

- A Over-braking.
- B Over-steering.
- C Both of the above.

Q2 Brakes kept in good condition:

- A Rarely fail.
- B Never fail.
- C Still cannot be trusted.

Q3 In case of breakdown, it is very important to:

- A Consider the safety of Self.
- B Consider the safety of others.
- C Consider the safety of self and other road users.





Part 10: Crashes

What You Must Do at a Crash

When you are involved in a crash or come upon a crash, you need to take prompt and proper action to prevent further injury or damage. The basic steps to be taken at any crash scene are:

- Stop.
- Protect the area.
- Care for injured.
- Notify authorities where you are and how many are injured.

It is an offence if you fail to stop after being involved in a crash.

Protect the Area

The first thing to do at a crash scene is to prevent another crash from happening at the same spot. The crash area needs to be protected:

- If your vehicle is involved in a crash and no one is hurt, try to get it to the side of the road to prevent another crash and to allow traffic to move. Use hazard warning lights or your portable warning triangles.
- If your vehicle is involved in a crash and someone is hurt, do not move the vehicle.

Notify Authorities

If you have a mobile phone, call the emergency number before you get out of the vehicle. Do not forget to say exactly where you are. Otherwise, wait until after the crash scene has been properly protected and then send someone to phone the police. Tell the police if anyone has been hurt and, if so, how many people are injured. Try to determine exactly where you are, so you can give the exact location. A long delay in the arrival of emergency vehicles may lead to people dying.

VERY IMPORTANT: If you were not involved in a crash and encountered the presence of a traffic accident on your way, avoid looking at the incident as it leads to obstruction of traffic, or may cause another accident.





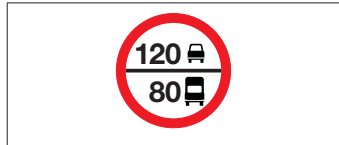
Part 11: The Law

This part tells you about laws for owners and drivers of all categories of heavy vehicles. In addition to these laws, drivers of heavy vehicles must comply with all road laws.

Speed Limits

All heavy vehicles must travel at speeds no greater than the speed displayed on a speed limit sign. Some signs have two speeds listed, one for light motor vehicles and one for heavy trucks.

Drivers of heavy trucks must take note of the lower speed limit that applies on these roads. You will find these signs on major highways and freeways. They are intended to make sure that heavy vehicles are travelling at a safe maximum speed, given their larger size.



Remember, the speed limit may not always be the safe speed for a heavy vehicle because of the vehicle's different handling, higher centre of gravity and performance. Drivers should always travel at a speed which is safe for the conditions.

Rules & Responsibilities

Traffic rules and road rules are important information that guides drivers to drive safely in complex traffic environment. Understanding and obeying these rules is the responsibility of the drivers. In order to do this requires the right skills, discipline, planning, observing and making decisions early on the part of the driver. Some important rules are found in the booklet to guide you to drive safely:



IMPORTANT RULE!

Every road user must respect the traffic regulations and standards, follow the signs, signals and instructions of the police and behave cautiously, so his conduct will not harm others, expose them to danger or block their movement.

(Article 1, Executive By-Law, UAE Federal Traffic law Number 21, 1995)

As a heavy vehicle driver, exposure to varying traffic conditions is longer and more often. So it is even more important that your knowledge about these rules is of higher standard in order to stay safe and free of any traffic violations.



IMPORTANT RULE!

The provisions of the law are applicable to all road users. You must obey the laws and rules of the road.

(Article 2, Executive By-Law, UAE Federal Traffic law Number 21, 1995)

If there is no public lighting on the road or it is difficult to see, you must use a reflective triangle or spot lights to warn other drivers. Once your vehicle is positioned safely, or can no longer be moved, you should place a warning triangle 50m away from your vehicle in the direction from where traffic is approaching.



IMPORTANT RULE!

You must use either spot lights or a three-dimensional warning triangle when parking at night if the road is not equipped with street lights or the visibility is poor.

(Article 64, Executive By-Law, UAE Federal Traffic law Number 21, 1995)

Signs Specific to Heavy Vehicles/Buses

There are a number of signs that are specially for drivers of heavy vehicles. These include the ones shown below.

	Drivers of goods vehicles must not proceed beyond this point. These signs are often placed in residential or narrow streets, where it is not appropriate for trucks or large vans to be travelling.		Goods vehicles are prohibited from using these lanes. These signs are intended to regulate the movements of heavy vehicles including buses, making sure that they stay in the slow lanes and do not impede the flow of faster moving traffic.
	Drivers of vehicles above 4.2 metres are warned there are low structures ahead that their vehicle will not fit under. You will come to this sign before you come to the one below.		Vehicles wider than 2.4 metres must not proceed beyond this sign. These signs will be found at the entrance to narrow streets.
	Vehicles above 4.2 metres must not proceed beyond this point. This sign indicates that there is a low bridge or other structure ahead and that you must not proceed if your vehicle is higher than the limit shown. Vehicles will not fit under these structures if they proceed.		Heavy trucks must not use roads displaying this sign during the times shown.
	This area of road is reserved for the stopping of Public Transport buses only.		Only designated delivery vehicles may park here. These signs are placed outside buildings where frequent deliveries are made.

Seat Belts

In Dubai it is a legal requirement that drivers of vehicles must wear a properly adjusted seat belt. Passengers in trucks are also required to wear seat belts. Passengers in buses should also wear seat belts if they are fitted.

Seat belts hold you securely in place. If you are the driver, this helps you to control the vehicle in a crash. They protect **everyone** in the vehicle. If a seat belt is not worn, people inside the vehicle continue to move around at the speed of travel before the crash. Serious injuries often result when people are thrown into each other or parts of the vehicle such as the steering wheel, gear lever, windscreen or, in the case of a bus, the seats in front of passengers. Seat belts give you a greater chance of escaping serious injury. If you are not wearing one you could be thrown from your vehicle which will increase your chance of being killed or more seriously injured.

Parking

As a professional driver you will need to park your vehicle in a range of different places. When parking a heavy vehicle for any length of time, park away from houses, shops and schools, and as far away from moving traffic as possible. Always park your vehicle in a safe position where it can be seen by other vehicles and traffic is not forced to divert around the vehicle.

Be aware of where you can and cannot park, and how long you can park. There are a number of places where you must not stop or park your vehicle. You must comply with all parking signs that apply to the area. If you do park in these areas, you could be a hazard to other road users and you will be fined. See details of parking signs earlier in this section.



Road Signs

Road signs provide visual information to help control and regulate the flow of traffic and help to keep you and other road users safe.

This is very important in Dubai as:

- Road networks are becoming more complex.
- Traffic volumes are increasing.
- The number of visitors to Dubai who are unfamiliar with the roads is increasing each year.

Road signs are placed on, over or next to a public road where they:

- Fulfil an important need.
- Command attention.
- Provide a clear and simple message.
- Provide sufficient time for road users to respond appropriately.

Road signs provide information to road users in three ways:

- As a regulation or road law (which **must** be obeyed by law).
- As a warning.
- As a guide.

Regulatory Signs

Regulatory signs are used to control the actions of road users. They tell you what you **must** or **must not** do. Failure to obey a sign is an offence.








The types of regulatory signs are:

- Control signs – show right of way priority or direction of travel
- Mandatory signs – indicate actions that must be taken
- Prohibitory signs – indicate prohibited actions or objects
- Parking control signs – regulate parking and stopping
- Freeway control signs – indicate roads classified as freeways.

You are breaking the law if you do not follow these signs. The only exception is when a police officer is directing traffic and he **must** be obeyed. Regulatory signs can be blue and white or red and white.








Control signs

Control signs are used to assign right of way priority or direction of travel. Here are some examples of control signs:

			
You must give way to pedestrians	You must give way	You must not enter this road	You must stop
			
Give way to cyclists	You must go this way	You must go this way	You must go this way













Mandatory Signs

Mandatory signs are used to indicate to road users actions which they must take. Here are some examples of mandatory signs:

			
Ahead only	Turn right only	Pass either side	
			
60km/h minimum speed limit - freeway	Roundabout. Travel in the direction of the arrow	Keep right	Keep left

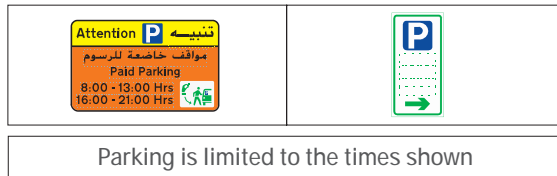
Prohibitory Signs

These signs are used to indicate to road users actions that they must not take, or which are prohibited. Here are some examples of prohibitory signs:

			
You must not turn left	You must not turn right	You must not exceed 80km/h speed limit	You must not overtake
			
No Hazardous Materials	No Goods Vehicles	No Pedestrians	No Cyclists
			
Prohibition of vehicles exceeding the maximum gross weight indicated	No 'U'turn	You must not use your horn	Maximum Height Limits

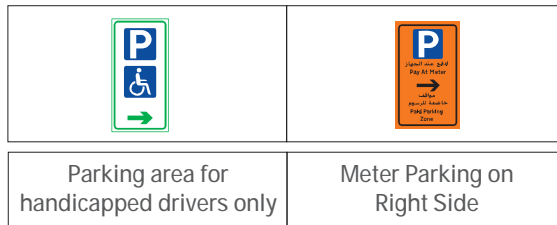
Parking Control Signs

These signs are used to control and regulate stopping and parking, where you may park or **must not** park or stop and provide time restrictions. They may be referred to as 'no stopping' sign. You must not park in this area, even if you are sitting in the vehicle. Here are some examples of parking control signs.



Handicapped Parking

The blue sign below shows an area reserved for parking by handicapped people. The parking bay will also be marked. Handicapped people must obtain a permit and display this. If you do not have a permit, you must not park in handicapped parking spaces.



Parking Prohibitions

These areas are reserved for taxis only.	These areas are reserved for Bus stops.	These areas are reserved for vehicles that are loading or unloading at specific times. Unless you are driving a commercial vehicle and are loading or unloading you must not park here during those times.	

No Stopping

These signs tell you that you **must not** stop at the curb for any reason. You **must** obey the signs.

You must not wait or park in the areas shown by the arrow(s).	You must not wait or park in the areas shown by the arrow(s) during the times shown on the sign.

Freeway Control Signs

Freeway control signs are used to indicate to road users which roads are classified as a freeway. They show the start and end of freeways.

The beginning of a freeway	The end of a freeway

Important Rules on Freeway:

Beginning of Freeway Sign shall mean that "Except in case of Emergency", no person shall:

- Operate a non-motorized vehicle on or near the freeway.*
- Be on foot on or near the freeway.*
- Stop or reverse a vehicle on the roadway.*
- Stop, park or drive on a shoulder, median or roadside area.*
- Drive at a speed less than 30 km/h less than the prevailing/posted speed limit on the freeway.*

End of Freeway sign removes all the above restrictions.













Warning Signs

Warning signs alert road users to potentially hazardous conditions. Sometimes these hazards are hidden. Warning signs are divided into 3 groups:
















- Advance warning signs.
- Hazard marker signs.
- Diagrammatic warning signs.

Advance Warning Signs













These signs provide road users with an early warning of hazards or potential hazards.

					
Traffic signals ahead	Give Way sign ahead	Stop sign ahead	Junction ahead (you will merge with other traffic)	Roundabout ahead	Bicycles crossing ahead
					
T-intersection ahead (you will need to stop)	Intersection ahead (slow down and prepare to stop)	Pedestrian crossing ahead	Two-way traffic	Maximum headroom at hazard ahead	Beware edge Way Soft

Advanced Warning Signs

				
Dual carriageway ends (two lanes join - beware of oncoming traffic)	Curve in the road to the left (slow down)	Curve in the road to the right (slow down)	Curves or bends in the road (drive carefully)	Low flying aircraft ahead (do not be distracted)
				
U Turn ahead	High Voltage overhead cable ahead	Opening bridge ahead	Road works ahead	Tunnel
				
Quayside or river bank ahead	Loose chippings	Slippery Road	Speed Hump	Risk of falling rocks

Advanced Warning Signs

			
Two-way traffic crosses one-way road ahead	Road narrows on the left ahead	Road narrows on both sides ahead	Right lane ends ahead
			
Other dangers ahead	Uneven road	Diversion to opposite carriageway ahead	Left-hand lane closed ahead
			
No through road	Steep hill downwards ahead	Steep hill upwards ahead	Right-hand lane closed ahead



IMPORTANT RULE!

You must slow down when passing schools.

(Article 39, Executive By-Law, UAE Federal Traffic law Number 21, 1995)



Take extra care when driving near schools, especially at times when children are arriving to start the school day or leaving at the end of the day. These are the busiest periods of the day and children do not have a strong sense of road safety, especially when they are very young. They may cross the road without looking or may already be crossing as you approach. Be aware of the speed limit in the area. It is likely to be lower than the surrounding roads. Flashing lights will also tell you that you are approaching a school.










A sign showing a picture of an animal, such as a camel, warns drivers that animals may be on the road. The symbol on these signs may also represent sheep or goats. Domestic animals are regularly herded across roadways and temporary signs may be displayed leading up to the area where the animals will cross.

Slow down when you see these signs and watch out for animals on the road. Leave as much space as possible to allow for their unexpected movements.

Never use your car horn around animals – it may frighten them and could cause them to run and cause a crash.

Hazard Marker Signs

Hazard marker signs identify physical hazards, such as a bridge structure, guardrails or traffic islands. The signs below provide some examples of hazard marker signs.

			
Hazard Plate	Hazard Marker	Single Chevron Right	Single Chevron Left
			
Multiple Chevron Right	Multiple Chevron Left	T-Junction Chevron	













Diagrammatic Warning Signs

These signs are used where the triangular advance warning sign does not allow enough room for a picture, or are not big enough to draw attention to the hazard ahead.

They are usually on high speed roads and fall into the following general categories:

- Traffic movement is affected by an obstruction (the obstruction may be real or anticipated).
- An additional lane is ahead.
- The use of the lane is regulated (for example a lane for trucks only).
- Lanes merge.

Here are some examples of diagrammatic warning signs:

						
Right lane closure ahead	Additional lane added	Lane use is controlled (trucks not permitted in left lane)	Five lanes merging to four lanes	Lane use control directional restriction		
						
Beginning/End of Median		Joining Lane		Sharp curve lanes ahead		

Guide Signs

Guide signs provide direction. They include information about route numbers, street names and destinations and are generally in both Arabic and English. These signs:

- Enable drivers to find their destinations.
- Avoid confusing drivers with too much information.
- Present drivers with predictable information.
- Give drivers advance notice so that directional changes can be made safely.

The colours that are used in the background of guide signs are:

- Blue – located on national routes and include the Emirates route emblem.
- Green – located on local Dubai routes and include the Dubai route emblem.
- White – these show local points, roads or destinations.
- Brown – provide additional information including symbols to describe the destination.

The signs below are examples of the emblems used on guide signs:

	
Emirates route emblem	Dubai route emblem

Trailblazing Guide Signs

Trailblazing signs have distinctive and recognizable symbols on them and are placed along a route to guide and reassure drivers that they are on the correct road to reach their required destination. This is known as 'trailblazing'. A picture of an aeroplane is an example of a trailblazing symbol.




Trailblazing signs are only used in certain destinations. There are six types of trailblazing guide signs used in Dubai:

		
Dubai routes	City Centre Central Business District	Emirates routes


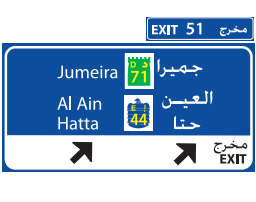
		
Dubai International Airport	Freeways	Tourist destination descriptions

Exit Directions Signs

The sign below is an example of an advance guide sign including the route emblems, trailblazing symbols and directional information. The meaning of the sign is explained below.












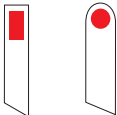



		
<p>To Umm Suqeim. Turn left.</p>	<p>To Jumeira, via Dubai route 94. Drive straight ahead.</p>	<p>To Umm Suqeim and Umm Al Sheif, via Emirates route 11, turn right.</p>

The signs below are examples of exit directions sign to guide drivers on the proper lanes to take prior to exit. The white exit panel means that particular lane is to be dropped and is moving away from the main line carriage way.

	
<p>Two Lane Exit: With one Lane Drop: Two Exit Route Numbers</p>	<p>Two Lane Exit: With Two Lane Dropped Two Exit Route Numbers</p>



Other important Traffic Signs

				
No turning for lorries	Road clear	No through road	Priority over vehicles from opposite direction	Parking
				
Hospital	300m 200m 100m Count-down markers	Supplementary information signs (normally with sign No.212)	Parking for Diplomat Cars Only	Diversion of traffic route
				
Other supplementary information signs	Reflective marker posts indicating edge of carriage way	Lane ahead open	Lane ahead closed	Reduce speed now

Dubai Tram and Dubai Metro

Tram is a rail vehicle which runs on tracks along public urban streets. This is a great addition to the modern transport system of Dubai. To ensure safe and smooth movements of this tram, road users must observe the signs, markings and rules that are especially created to ensure safe operations of the tram.



Priority Tracks for Tram Movement

When dealing with a moving Tram, all road users including pedestrians must give priority to Tram movement. The only exceptions to this priority rule are emergency vehicles.



IMPORTANT RULE!

1. All users of the road shall give priority to the movement of the Tram in the Tram Right of Way.
Exceptions to this rule:
 - a. Emergency vehicles (fire engines, ambulances, police and civil defense vehicles)
 - b. Official escorts
 - c. Army vehicles when moving in convoy.
2. Unless permitted by law,
 - a. No person may obstruct a Tram in the Tram Right of Way.
 - b. No person may carry out an activity in the vicinity of the Tramway which is likely to cause the obstruction of a Tram in a Tram Right of Way.

Article (13) – Rights & Responsibilities of drivers of other vehicles and pedestrians

Littering and Causing Obstructions to Tramway Line

Persons, road users or otherwise must refrain from any activity that may obstruct the movement of the Tram whether directly or indirectly.



IMPORTANT RULE!

3. No person may:
 - a. Place or cause litter to be placed on the Tramway line.
 - b. Put up advertising materials on the Tramway or in the vicinity of the Tramway other than advertising materials authorized in accordance with the law.
 - c. Interfere with any infrastructure, except in emergency to avoid damage or injury.

Crossing and Entry Restrictions

Due to the nature of the Tram, pedestrians are restricted from crossing and/or entering Tramway lines except where permissions are clearly stated.



IMPORTANT RULE!

4. No pedestrian may cross the Tramway line except:
 - a. At a clearly marked crossing point.
 - b. In the area designated in accordance with a By-law under this Regulation as an area where crossing is allowed.
5. No person may enter a restricted area unless that person has the valid prior authorization of an operator or some other legal right to enter.

Accidents with Tram

In the event accidents happen involving the Tram, those involved are required to remain at the scene it at all possible.



IMPORTANT RULE!

6. Any pedestrian or driver of a vehicle other than a Tram who is involved in an accident must remain at the scene and await the relevant authorities, unless there is reasonable justification for the person to leave the scene, in which case the person shall report to the nearest police station as soon as practicable.



In case of minor accident (without serious damage to the tram or to the infrastructure of the Tramway and without serious injuries), the Dubai Police personnel will direct the persons involved to the Tramway depot for issuing the initial accident report.




Signs and Markings Related to Dubai Tram

Regulatory Signs


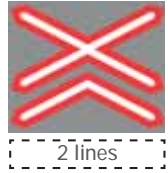


This sign indicates that the road or portion of the road ahead is set aside for trams only. No other class of road users shall use the road or portion of the road indicated by this sign.

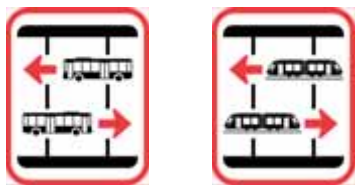
Warning Signs

<p>TRAM OR RAILWAY CROSSING TO THE RIGHT</p>  <p>TRAM OR RAILWAY CROSSING TO THE LEFT</p>  <p>These signs warn the driver of vehicles that if they intend to turn right or left they will cross a tram route or railway line. A supplementary plate may be attached below the signs indicating the distance to the tram or railway crossing</p>	<p>TRAM CROSSING AHEAD</p>  <p>This sign warns the driver of vehicles that there is a tram route ahead and that trams may cross from right-to-left, or left-to-right. The plate below the sign indicating the distance to the tram crossing.</p>
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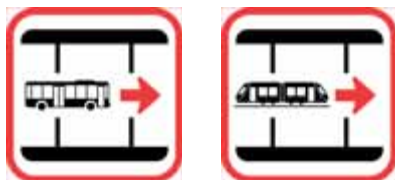
TRAM or RAILWAY LEVEL CROSSING

 <p>Single tram or railway line crossing over road</p>	 <p>Two or more tram or railway lines crossing over road. The plate below the sign displaying a text message such as "2 lines" indicating the actual number of lines to be crossed</p>
<p>These sign warns motorists of the actual position of a tram or railway level crossing over the road on which they are travelling, which represents a significant potential hazard at which they should reduce speed, exercise extreme caution and be prepared to stop if required to do so.</p>	

Pedestrian/Bus or Tram Crossing



This signs warns pedestrians that they are about to cross a bus or tram right-of-way respectively. They must look in both directions, to right and left, to ensure that no trams or bus is approaching before proceeding to cross the tram or bus route.

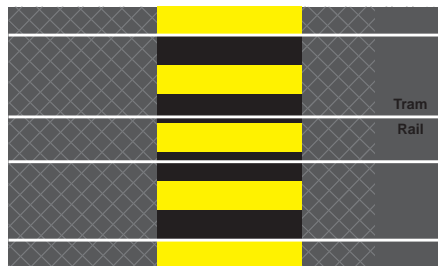


A bus or tram route may involve a single loop line with one direction of travel. If it is intended that a single bus or tram line may be used in either direction, then this signs may be provided to indicate the actual direction of approach of the next bus or tram.

Regulatory Markings

Tram Line Pedestrian Crossing

This marking warns pedestrians wishing to cross one or more tram lines to be aware of the direction from which a tram may approach, observe any pedestrian traffic signals and cross line(s) with caution.



PEDESTRIAN CROSSINGS ON TRAM TRACK

Tram Line Pedestrian Crossing

Zig-Zag Zone Line marking is used to inform drivers of specific zones

where it is mandatory that:

- They shall not stop or park their vehicles adjacent to the line marking, EXCEPT to give right of way to pedestrians and or cyclists at a pedestrian and/or cyclist crossing, or to stop behind such other vehicle(s) as are complying with this mandatory requirement; AND
- They shall not change lanes within such zig-zag zone; AND it informs pedestrians and/or cyclists that they shall not cross a zig-zag zone except at PEDESTRIAN CROSSING.

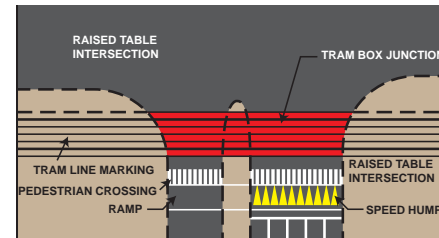
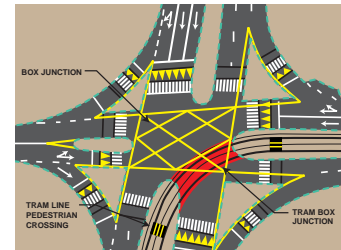
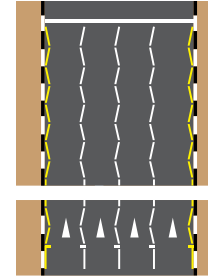
Tram Box Junction

Tram Box junction shall consist of a continuous red surface area including tram line(s) alignment across the road way.

It may be located at a signalized junction, normally in junction with BOX JUNCTION located over the road junction. It may also be located at un-signalised accesses where crossing of the lines may occur.

Tram Box Junction informs drivers of vehicles that they shall not enter the coloured surface box unless the exit from it is clear.

Drivers, whose vehicles enter the box marking when other stationary vehicles are preventing them from leaving it, are committing an offence.



Warning Markings

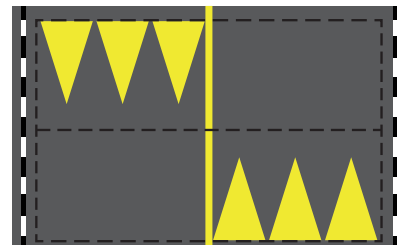
Warning pavement markings warn road users of the existing hazardous or potentially hazardous conditions. Warning markings do not carry a mandatory requirement for specific action. However, these markings do convey a message of warning and willful disregards of those warnings may constitute a violation when road users fail to maintain adequate and safe control of their vehicle

Speed Hump Marking

This is to warn drivers of the presence of a speed hump in the roadway.

The SPEED HUMP marking comprise of yellow triangular areas arranged at the entry up slope of the speed hump and the long axes of the triangle are aligned in the direction of travel.

The RAISED TABLE PEDESTRIAN CROSSING is usually combined with the SPEED HUMP marking.








Railway or Tram Level Crossing Ahead

This marking is to provide warning to drivers that the lane in which they are travelling is about to cross railway or tram line(s), or that after turning from the lane in which they are travelling they will cross railway or tram line(s).

Driver should exercise high degree of care and caution.



Important Traffic Sign for Tram

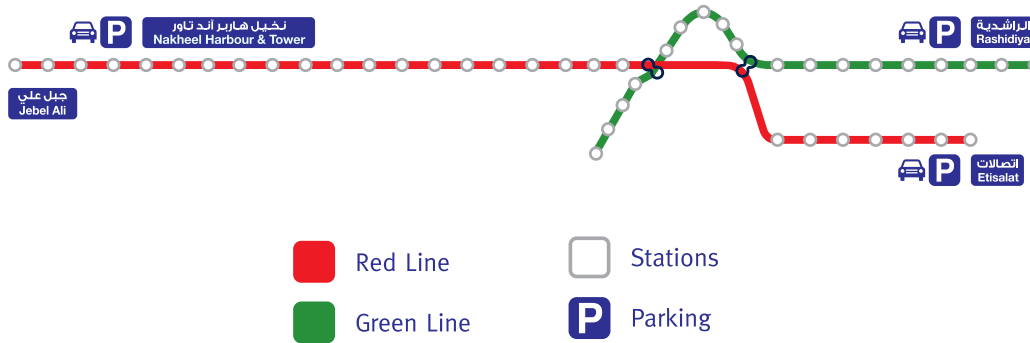
<div><div>Attentionتنبيه</div><div></div><div>امامك ترام - خفف السرعة Tram Ahead - Reduce Speed</div></div>	<div><div></div><div>امامك ترام Tram Ahead</div></div>	<div><div></div><div>ممنوع الوقوف على السكة Do Not Stop on Tracks</div></div>	<div><div></div><div>120m</div></div>
<div><div>ممنوع دخول التقاطع إلا إذا كان مسارك خاليا من المركبات والترام DO NOT ENTER JUNCTION UNTIL EXIT IS CLEAR FROM ALL TRAFFIC INCLUDING TRAM</div></div>	<div><div>Attentionتنبيه</div><div></div><div>عقوبة قطع الاشارة الضوئية الحمراء والتسبب بحادث أو اعاقا الترام 30000 درهم (الحد الأقصى) وحجز رخصة القيادة Penalty For Red Light Violation & Causing Accident Or Tram Interruption AED 30000 (Maximum) Driving License Impounded</div></div>	<div><div></div><div>ممنوع دخول منطقة الترام غرامة المخالفين 1,000 درهم Keep Off Tramway - Violators will be Fined AED 1,000</div></div>	



Parking under the metro viaducts (bridges) is illegal.
Your vehicle may be towed.

Don't park here, park and ride instead.

Park for free at Nakheel Harbour, Rashidiya or Etisalat and ride the metro.



Park and Ride.

Using the Metro is easier than ever. With over 5,700 parking spaces at Nakheel Harbour & Tower, Etisalat and Rashidiya stations, you can just leave your car behind. Along with the traffic.

Facebook: Road and Transport Authority Dubai - Group

YouTube: www.youtube.com/rtadubaigov

Salik in Dubai

Salik, meaning open or clear, is Dubai's electronic toll collection system launched in July 2007. This is part of Dubai's traffic congestion management system utilizing the latest technologies to achieve free flow operation with no toll booths, no toll collectors, no impact on traffic flow, allowing vehicles to move freely through the tolling point at highway speeds.

Each time you pass through a Salik tolling point, a toll will be deducted from your prepaid toll account using advanced Radio Frequency Identification (RFID) technology.

Currently, there are six (6) Salik Gates around Dubai.

- Al Maktoum Bridge.
- Al Garhoud Bridge.
- Al Safa.
- Al Barsha.
- Al Mamzar.
- Airport Tunnel.



You can open a Salik prepaid toll account at most Petrol Stations in Dubai, or selected Petrol Stations at the other Emirate. Just purchase a Salik Tag and complete the Account Opening Application form. A fee of AED 100 is charged per vehicle, of which AED 50 is to pay for the Salik Tag and AED 50 is your first prepaid toll amount. Full instructions on how to install your Tag are provided with the Tag.

Recharge salik account:

You can recharge your Salik account through:
salik website - petrol station - Emirates NBD Bank and Dubai Islamic Bank - Dubai government smartphone application Mpay, Kiosk Machines, E-Voucher, Shopping Centers...Etc.

Salik Violations:

If you drive through a Salik Gate without a Registration in Salik or without sufficient balance in your account the following fines apply:

Insufficient Funds in your account AED 50.00.

Non Registered vehicles in Salik as Follows:

- First Trip AED 100.00.
- Second Trip AED 200.00.
- Third and succeeding Trips AED 400.00.

Maximum violation amount per calendar year AED 10,000.00, Customers may file dispute within 120 days from the date of salik violation.

For a trouble Free Salik Account:

- Your Salik Tag should ONLY be used on the vehicle assigned to your Salik account.
- Never transfer your Salik Tag to another vehicle.
- If you sell your vehicle, you must deactivate and remove its Salik Tag.
- Advise Salik if you change your Vehicle plate number or mobile number.
- Buy a new Salik Tag for each new vehicle; using the old owner's Tag will result in violations.
- Sms notifications in an added value service provided by RTA customers are requested to top-up & follow up their account as it is their responsibility.

Visit www.salik.ae or call 800-Salik (72545) for a more complete information about Salik.





Part 12: Driving a Bus

As a bus driver, you are responsible for the safety of your passengers whenever they are getting on to, travelling in or getting off your bus. If you drive a bus, there are procedures you need to know and follow that will help make your passengers' journey a safe one. This is not a full list of safety procedures for a commercial bus driver, but a list of common requirements for all bus drivers. Commercial bus drivers will have to undertake separate training apart from obtaining the relevant category on the driver license.

Before Starting the Trip

Before you start your journey, make the following special checks to see that the equipment is working:

- Rear door safety interlock, if applicable.
- Passenger seats are secure and not moving on their hinges.
- Mirrors are properly adjusted.
- Steps and walkways are clear of anything which might cause problems for passengers.

What You Need to do Before Pulling In at a Bus Stop

- Indicate correctly.
- Slow down smoothly.
- Stop close to the curb so that passengers can get on and off easily - if possible, passengers should be able to step onto the footpath without having to step onto the road. If picking up or dropping off school children, you should turn on your Hazard Warning Lights. Check mirrors before opening doors to make sure that a door will not strike any passengers.
- Make sure the bus does not move while passengers are getting on and off.

What You Need to do Before Pulling Out From a Bus Stop

Mirror checks you need to make when pulling out from a bus stop are:

- Near side mirror for passengers getting on.
- Rear door mirror for passengers getting off.
- Internal mirror for standing passengers.
- Driver's side mirror for overtaking vehicles.

When safe, close passenger doors. If picking up or dropping off school children, you should turn off your hazard warning lights, re-check mirrors, indicate for at least 5 seconds and then move out from the bus stop.

Passengers

Watch that passengers get on and off safely. Make sure any passenger having difficulty getting on and off the bus has assistance. Scan the road ahead, so that you see passengers waiting at a bus stop and can slow down to pick them up.

Driving a Bus

Regularly scan the internal mirrors to make sure the passengers are in no danger. Drive smoothly and avoid sudden changes in direction when accelerating or braking. Allow for passengers' movements as you travel. Passengers may want to move to the exit door while you are still driving. Take note of stop requests and respond to them.

Remember that your load is made up of people rather than the types of loads that trucks carry. It is important that your driving is particularly smooth and that you take even more care to drive safely. As the driver of a bus, you are responsible for the personal safety of **all** your passengers. This may be a large number of people.

Your passengers will be a cross-section of the whole community. They will include children, teenagers, old people, people with special needs such as the need to use crutches or walking sticks, and other people who have difficulty moving. You need to consider their requirements as they travel in your bus.

You will obtain special training in communicating with these customers and other aspects of customer service by your bus company. Make sure that you treat this training seriously, because it will also assist you in ensuring the safety of your passengers.

Warning Note

Remember your vehicle's dimensions and make sure that you have enough space around you and that you take notice of any signs telling you height, width and length limits. Also, your bus will handle differently depending on the number and distribution of passengers. Make sure you alter your driving to allow for this.

Public Transport Bus

There are also a number of requirements if you are driving a bus for public transportation.

You must not:

- Exceed the number of passengers set by the licensing authority for the public bus.
- Refuse a fare paying passenger, unless the bus is full.
- Engage in conversations with passengers or allow them to stand or sit beside you.
- Allow passengers to put their heads and arms out of the window.
- Receive or disembark passengers, except from places reserved for that purpose.

As well the vehicle should have:

- Lighting between sunset and sunrise.
- A sign indicating it is a public transport vehicle with the number of passengers allowed.
- A set of fares to show passengers.



Bus & Taxi Lanes in Dubai

Priority Lanes for Public Transport Buses and Taxis

Roads & Transport Authority has taken bold steps in improving the mobility of public transportation in Dubai. Among those steps taken is the allocation of exclusive lanes for Dubai registered Public Transport Buses and Taxis. The only other vehicles allowed to use these exclusive lanes are the police cars, ambulance and other emergency services vehicles.

Locations of Exclusive Buses and Taxis Lanes

Currently, there are four areas designated for exclusive use by buses and taxis (more maybe added later).

1. Al Mankhool Road – from Satwa Roundabout to Shiekh Rashid Road.
2. Al Khaleej Road – from the intersection with Khalid bin Al Waleed Road to Al Musalla Road, opposite to Hyatt Regency Hotel.
3. Khalid bin Al Waleed Road – from the intersection with Al Mina Road to Road 16.
4. Al Ghubaiba Road – from the intersection with Al Mina Road up to Road 12.

These lanes are clearly marked and segregated by solid yellow lines on both sides of the lane close to the edge on the extreme right. Large Arabic and English text that read “الحافلات وسيارات الأجرة فقط” ONLY BUS TAXI. You will also see signs at the beginning and at the end of the designated bus and taxi lanes with blue background, white lines and white text that contain image of bus and taxi. At the bottom of the sign, it reads “Bus/Taxi Lane Begin or Bus/Taxi Lane End”.

Illegal Use of the Buses and Taxi lanes

Whenever possible, use the lanes designated for use by private cars. These are the lanes outside the marked areas for buses and taxis use. If you use the bus/taxi lanes illegally, you will be disturbing the free movement of these public transport vehicles. Drivers on emergency situations may use the bus or taxi lanes. this may also be used when entering from or exiting to other roads.

Remember, these public transport vehicles have the priority in these lanes for the simple reason that they carry more passengers compared to the vehicle you maybe driving.

Since 15 May 2010, these bus and taxi lanes are being monitored by the Dubai Police officers as well as by accredited RTA Officials. Any driver caught illegally using these lanes will be fined AED 600.00.





School Buses in Dubai

School Buses in Dubai are governed by strict regulations by the Roads & Transport Authority. This is to ensure all students of all ages in Dubai are safely transported to and from their schools throughout the school year. This is also part of the over all road safety strategy and the ultimate vision of RTA to ensure “safe & smooth transport for all”.

To reduce the risks of the students on board, the speed of school buses is limited to maximum 80 kph only. The drivers are especially trained to drive safely and to deal with the children on board.

Be Patient when Dealing with School Buses

When picking up and dropping off students, school buses will stop frequently. Be patient and do not pass a school bus that stops with the flashers and stop arm working.



Remember:

- School buses may stop for several minutes especially if there are several students boarding or alighting at certain locations.
- Be extra cautious when there are school buses traveling nearby.
- When school bus stops, students may suddenly cross the road. Young students especially the small children maybe unpredictable when they alight from or approach the school bus.
- School buses large or small need to travel and stop as smoothly as possible. Give due consideration and stay clear of them whenever possible and avoid any sudden actions that can startle the school bus driver.
- Over speeding or sudden stops may scare off students that may cause them to run and cause danger to themselves or others.

Vehicles for the Handicapped



Some people who are unable to walk use self-propelled or motorised wheelchairs. Because they are seated, it is difficult for drivers to easily see them. You need to watch out for people in these types of vehicles.

Watch out for Motorcycles and Cyclists

You need to be extra careful when you are driving near motorcycle riders and cyclists. Being smaller in size makes them difficult to see. Drive carefully! They are permitted to use the full road lane so give them enough space to do this, particularly as they pass parked cars in case doors are opened carelessly. You should only overtake bike riders and motorcycle riders if you can safely move to the left, leaving at least one metre clearance.



Always Give Way to Police and Emergency Vehicles

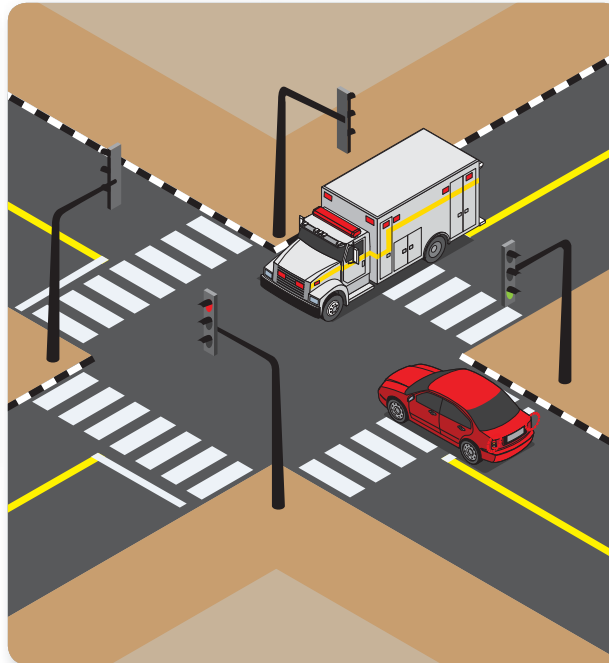
Police and Emergency vehicles have priority when their siren is on or they are displaying red or blue flashing lights. You must give way and stop if necessary (despite any other rules), even if you have a green traffic light. If you are on a busy road, try to move out of the way of the emergency vehicle as quickly and safely as possible.



IMPORTANT RULE!

You must immediately give way to emergency vehicles which have either a siren sounding or flashing red and blue lights by keeping to the right side of the road, reducing speed and stopping if necessary. Priority must also be given to military vehicles when they proceed as convoys.

*(Article 4, Executive By-Law, UAE
Federal Traffic Law Number 21, 1995)*



Variable Message Signs (VMS)

VMS are information signs to assist drivers to know about conditions ahead. This may be to do with choice of lanes, road opening times, and advice on bad weather conditions, heavy traffic, crashes or construction works on roads. If the VMS shows speed limit, that speed takes priority over the speed limit posted on that particular road for that particular time.



Road Markings

Road markings provide visual information to road users to help control and regulate the flow of traffic. As with roads signs, road markings help to keep you and other road users safe on the road and must be obeyed where required.



IMPORTANT RULE!

Every road user **must** respect the traffic regulations and standards, follow the signs, signals and instructions of the police officer and behave cautiously, so his conduct will not harm others, expose them to danger or block their movement.

(Article 1, Executive By-Law, UAE Federal Traffic law Number 21, 1995)

Road markings will be either yellow or white.

There are three types of road markings:

Regulatory – these road markings must be obeyed by law.

Warning – these road markings should be observed appropriately as they serve as warnings of hazardous driving conditions ahead.

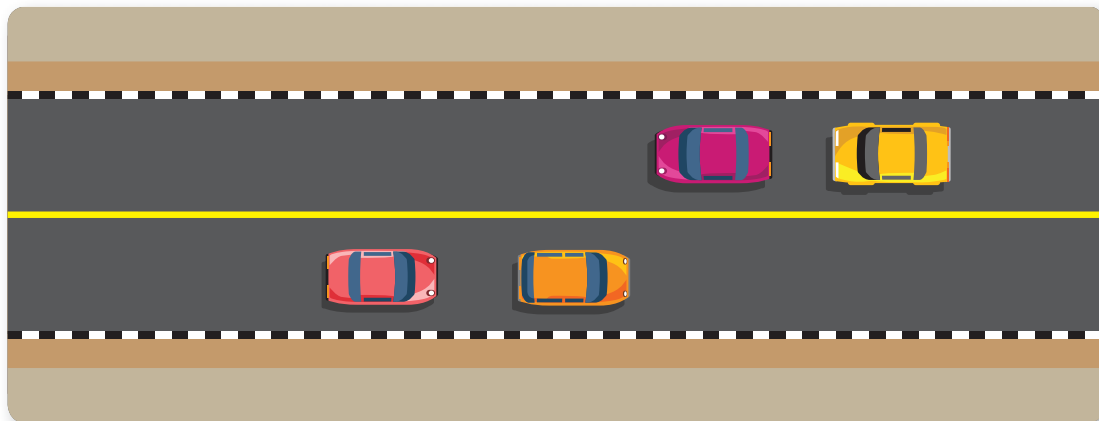
Guidance – these road markings help guide your travel.

Regulatory Road Markings

These road markings tell you what actions you can or cannot do. They will be either white or yellow. You must obey these road markings. You are breaking the law if you do not.

No Passing Line

This is a solid line on the road as shown in the diagram below. You must not cross this line to overtake another vehicle or to turn (except in the case of an emergency).



IMPORTANT RULE!

You must not cross a single solid line on the road which is dividing traffic.

(Article 58, Executive By-Law, UAE Federal Traffic law Number 21, 1995)

Stop Line

If you are approaching an intersection with a Stop sign or traffic signals, you will also have a white Stop line painted across your lane. In the case of a Stop sign and Stop line, you must come to a complete stop before the line. In the case of traffic signals and a Stop line, you must not cross this line unless you have a green traffic signal. Always make sure the intersection is clear and it is safe to proceed before doing so.

Give Way Line

Where there is a Give Way sign, there will also be a broken white line across the path of approaching traffic. You must 'Give Way' to any vehicle or pedestrian crossing your path. Slow down and stop if necessary to avoid a collision. Always make sure the intersection is clear and it is safe to proceed before doing so.



IMPORTANT RULE!

You must slow down while approaching a pedestrian crossing indicated by road markings and traffic lights or a police officer. If you are not allowed to pass, you must stop before the crossing, and when the signals indicate that you may go, you must wait until the crossing is clear. Where there are no pedestrian crossing signals or police officers at a crossing, you must stop and give the way to pedestrians.

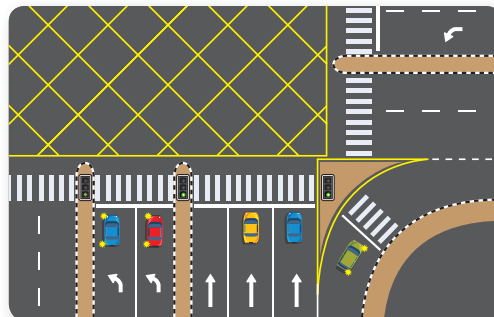
(Article 35, Executive By-Law, UAE Federal Traffic Law Number 21, 1995)

Pedestrian Crossings

Pedestrian crossings are marked with thick white lines across the crossing to make the crossing clearly visible to pedestrians and drivers. You must give way to pedestrians crossing at a pedestrian crossing.

Box Junctions

Large intersections are marked with a large yellow box with diagonal squares. This is known as a box junction. It is to indicate to drivers that they must not block the intersection when traffic is heavily congested. Signs will warn drivers not to queue across the intersection.



Warning Road Markings

Warning road markings advise drivers of potentially hazardous conditions.

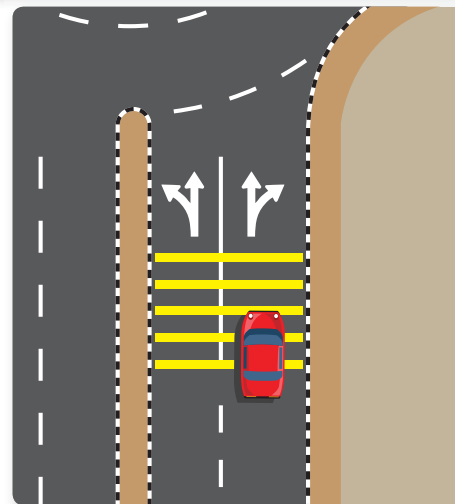
Rumble Strips

Lines painted on raised strips across the road, known as 'rumble strips', warn drivers that they are approaching a hazard such as a roundabout or pedestrian crossing. Drivers can see the rumble strips, hear a rumble and feel a vibration if they drive over them. This acts as a warning and is helpful for drivers on a long drive, who may be feeling tired or sleepy if they have not had a rest.

Speed Humps

Broken yellow lines completely across the full width of the road and shoulder warn motorists that there is a speed hump in the roadway. Speed hump warning signs will be used to give advance warning about the speed hump.

Be alert for pedestrians, as they may use this as a crossing point.



Guidance Road Markings

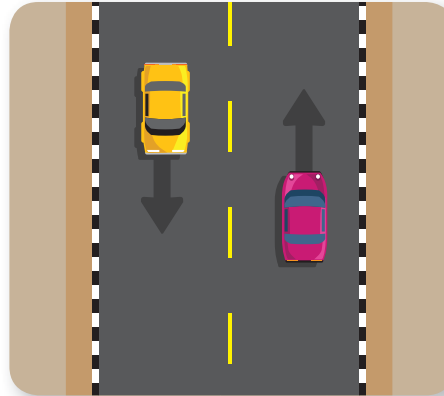
These road markings help drivers understand the paths vehicles should follow through intersections or roundabouts.

Lines in the Centre of the Road

Many roads are painted with broken white lines or single continuous lines in the centre of the road. Stay in your lane and be aware of what you can and cannot do when you are faced with these lines. Here are some examples.

Broken Yellow Lines

If you are driving on an undivided road where there are two lanes in opposite directions, the broken lines down the centre of the road will be painted yellow. Keep to the right of the lines and drive close to the right side of the road. Take care when you cross these lines and only do so if the road ahead is clear and it is safe to do so.

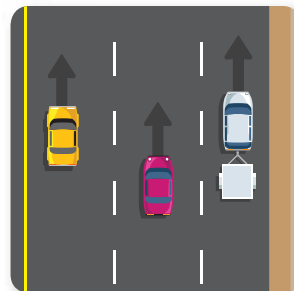


In some areas of the UAE, two way roads will have white broken lines, so be aware when you drive and remember to treat these white lines in the same way as if they were yellow broken lines.

Broken White Lines

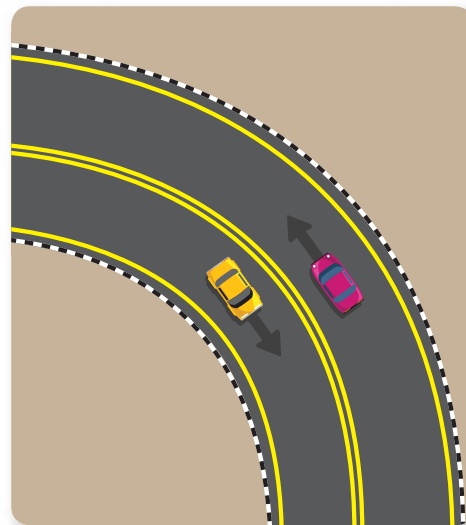
Broken white lines separate two or more lanes of traffic travelling in the same direction. Drive your vehicle completely within one lane.

You will also notice longer white broken lines (or longitudinal white lines). These lines are used in areas where changing or crossing lanes is not permitted, for example when you are approaching an intersection or pedestrian crossing.



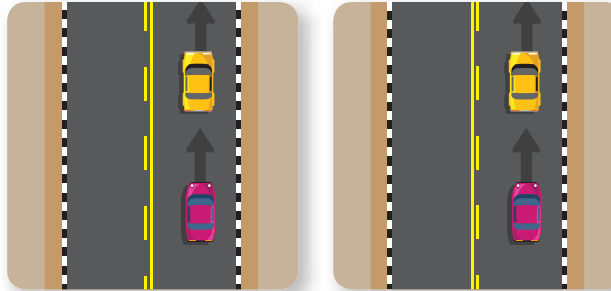
Solid Lines – Single or Double

You must always keep to the right of these lines. You must not cross a double yellow line in the centre of the road. You will see these lines in areas that are particularly hazardous (for example, around a bend where you cannot see the traffic approaching from the opposite direction).



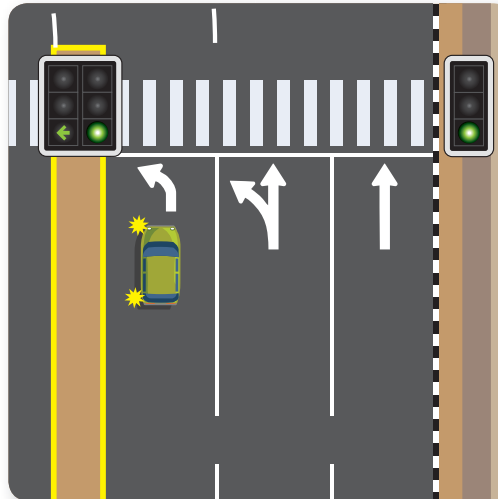
Double Yellow Lines, Solid on One Side and Broken on the Other

You can only cross these lines to overtake another vehicle, or to enter or leave the road, if the broken line is on your side. You must not cross these lines if the solid line is on your side.



Traffic Lane Arrows

Arrows are painted on the road in the middle of lanes at some intersections. They show the direction in which traffic in these lanes must travel.



Test Yourself Questions

(Answers to Test Yourself Questions are upside down at the bottom of this page)

Q1 Before you start your journey, you should:

- A Have a last cup of coffee.
- B Radio ahead to check road and traffic conditions.
- C Make sure passenger seats are secure and safe.

Q2 Before you pull in at a bus stop you should:

- A Slow down smoothly, stop close to the curb to allow passengers to leave easily and check the mirrors before opening doors.
- B Slow down smoothly, stop far away from the curb to rejoin traffic easily and check mirrors before opening doors.
- C Maintain driving speed until the last minute, slow down, stop close to the curb to allow passengers to leave easily and check the mirrors before opening the doors.

Q3 When scanning your mirrors while driving, you should look for:

- A Other drivers tailgating you.
- B Passenger safety and behaviour.
- C Public phones in case the bus breaks down.







Part 13: Safe Driving Tips

The aim of this handbook is to help you become a safe and responsible heavy vehicle driver. Driving a heavy vehicle is not easy and it takes a lot of time and practice to become a good driver.

The list below identifies some important driving tips for you to remember:

- Know your vehicle - height, weight, and load limit.
- Do not exceed vehicle load limits. Ensure that the vehicle you are driving is suitable for the load.
- Restrain the load so that it can not move, or fall, whilst driving.
- Keep your vehicle in good mechanical condition. Conduct a daily vehicle inspection.
- Plan your trip in advance. Allow sufficient time to reach your destination - do not rush.
- Fasten your seatbelt (every trip).
- Alter driving to suit weather conditions.
- Do not be under the influence of drugs and alcohol.
- Learn to recognise driving situations that can be hazardous. Utilise the height of your vehicle to see further ahead. Take note of improper driving actions of others and do not repeat them.
- Allow sufficient space between you and the vehicle in front – do not tailgate.
- Do not exceed the speed limit for heavy vehicles. This is displayed as the lower speed limit on a speed sign.
- The faster you go the more likely you are to have a crash. Speed is a contributing factor in 80% of all crashes in Dubai.

- Obey all traffic signs and markings. Never try to beat traffic lights.
- Watch for cars entering the road ahead, changing lanes or turning.
- Plan and signal well ahead when you want to change lanes or overtake.
- If you are not sure that you have enough time to turn safely or change lanes, just wait. A few seconds or minutes could save your life.
- Concentrate, keep your mind on the road.
- Stay alert. Take rest breaks whenever possible.
- Expect the unexpected from drivers.
- Be mindful of pedestrians there are many visitors in Dubai and they may not be familiar with Dubai roads.
- Whenever practical, pull over and check the load remains securely stacked.
- If possible avoid driving at night. During 2006, 45% of crashes occurred during the night.





Part 14: Eco Friendly Driving Habits



Eco friendly driving means driving in a way that saves fuel so that there is less harm to the environment. It can also save you money.

Put Your Money in the Bank Instead of the Fuel Pump!

There are obvious maintenance tasks you can do to minimise your fuel use. Keeping your car tuned, changing your air slip and keeping your tyres properly inflated, all add to savings at the pump through reduced fuel use.

But did You Know that Another Huge Fuel Saver will not Cost You Anything at all?

That is right, it is free, and you can start right now. This important change involves your everyday driving habits. Believe it or not, the way you act behind the wheel can really affect how much fuel you use.



Saving fuel while you drive involves a less aggressive attitude behind the wheel. It is also a safer way to drive.

Harsh acceleration and braking can use up to 30% more fuel and can cause increased wear and tear on the vehicle. Careful motorway driving will improve safety and traffic flow.

These Easy Tips Can Really Make a Difference

- **Accelerate more gradually.** The harder you press the accelerator, the more fuel you are pouring down the hole. A smooth driving style can save up to 10% of fuel used.
- **Braking.** Any use of the footbrake should be smooth and positive. By looking well ahead, you are able to see things happening which would require you to brake. Be prepared. Take your foot off the accelerator and start braking early.
- **Change gears earlier.** If your car has a manual transmission, try changing gears at a lower engine revs or move to a higher gear earlier. Move into higher gears reasonably quickly. The higher your engine revs, the more fuel it burns. Cars with manual gears are generally more fuel-efficient than automatics.
- **Engine speeds should be kept relatively low.** An engine speed of around 3000 rpm can save a lot of fuel.
- **Keep your speed down** as driving at 80-100 km/h means your emissions will be lowest. Driving over 110 km/h will rapidly increase your emissions. It can cost you up to 25% more in fuel to drive at 100 km/h compared to 80 km/h. Keep to all legal speed limits and plan well ahead for changes.
- **Try not to beat the lights.** The chances are that if you stop at a red light and then try to beat all the following lights, you will use more fuel and may still have to stop. If you drive at a more sedate speed you will usually find that by the time you reach the next light it will have turned green again.
- **Take the time of day into consideration.** If possible, stagger your work hours to avoid rush hour traffic. Sitting in stop and go traffic is the biggest waste of fuel there is. Try leaving home for work a little earlier. You will avoid some traffic and impress your boss.
- **Maintaining the correct air pressure in your tyres saves fuel and money.** One thing you can do to stretch your fuel is to check your tyre pressures. Low tyre pressure will make the tyres drag and use more fuel. Look in your owner's manual and see what the recommended tyre pressures are. Check them every time you fill up with fuel. Think of it as adding an extra 2 litres to your tank for free.

- **Keep your engine tuned.** Keeping your engine well tuned is another good way to stretch your fuel costs. An engine that grinds for ten seconds before firing up wastes enough fuel to take you four kilometres. Maybe it is time for a new set of spark plugs and a new air filter. Now is a good time to go get them.
- Make sure you use the correct fuel. Use the recommended fuel to get the best performance from your car. Check your owner's manual to see what the recommended fuel is.

**JOIN THE DRIVE FOR
GREENER MOTORING**





Part 15: Traffic Violations, Fines and Black Points

All traffic violations will result in some form of penalty. Penalties include blackpoints or fines that you must pay. Some might also involve your license being suspended or cancelled for a period of time. The blackpoint system was introduced to encourage safer driving practices.

Serious violations are listed below. For information about other violations visit the RTA website: www.rta.ae

Bear in mind that for some traffic violations, the court will decide on the type of punishment that will be rendered depending on the severity of the violation.

	Violations	Fine	Traffic Points	In Presence In absence	Vehicle Confiscation
1	Driving dangerously (racing)	2000	12	Both	30
2	Driving under the influence of alcohol, drugs or similar substances	Decided by court	24	Both	60
3	Driving a vehicle without number plates	1000	24	In Presence	60
4	Causing death of others	Decided by court	12	In Presence	30
5	Not stopping after causing accident that resulted in injuries	Decided by court	24	Both	60
6	Reckless driving	2000	12	Both	30
7	Exceeding maximum speed limit by more than 60kph	1000	12	Both	30
8	Driving in a way that is causing dangers to others	1000	12	Both	30
9	Jumping a red light	800	8	Both	15
10	Running away from a traffic policeman	800	12	Both	30
11	Dangerous overtaking by trucks	800	24	Both	60
12	Causing a car to overturn	Decided by court	8	Both	-
13	Causing serious injuries	Decided by court	8	In presence	-

	Violations	Fine	Traffic Points	In Presence In absence	Vehicle Confiscation
14	Exceeding maximum speed limit by not more than 60kph	900	6	Both	-
15	Exceeding maximum speed limit by more than 50kph	800	-	Both	-
16	Overtaking on the hard shoulder	600	6	In presence	-
17	Entering road dangerously	600	6	Both	-
18	Causing moderate injury	Decided by court	6	Both	-
19	Heavy vehicles lane discipline	600	6	Both	-
20	Overtaking from a prohibited place	600	6	In presence	-
21	Causing serious damage top a vehicle	Decided by court	6	In presence	-
22	Exceeding maximum speed limit by more than 40kph	700	-	Both	-
23	Parking in fire hydrant places, spaces allocated for people with special needs and ambulance parking	1000	4	Both	-
24	Exceeding maximum speed limit by more than 30kph	600	-	Both	-
25	Driving against traffic	400	4	In presence	-
26	Allowing children under 10 years in the front seat of the vehicle	400	4	In presence	-
27	Failure to fasten seatbelt while driving	400	4	In presence	-
28	Failure to leave a safe distance	400	4	Both	-
29	Failure to follow the directions of the police	400	4	Both	-
30	Exceeding maximum speed limit by more than 20kph	500	-	Both	-
31	Entering the road without ensuring that it is clear	400	4	In presence	-
32	Exceeding permitted level of car window tinting	500	-	In presence	30
33	Not giving way to emergency, police and public service vehicles or official convoys	500	4	Both	-
34	Driving heavy that does not comply with safety and security conditions	500	-	In presence	30
35	Failure to stop after causing an accident	500	6	Both	7
36	Driving a noisy vehicle	500	-	Both	30

	Violations	Fine	Traffic Points	In Presence In absence	Vehicle Confiscation
37	Allowing others to drive a vehicle for which they are unlicensed	500	-	In presence	-
38	Loading a heavy vehicle in a way that may pose danger to others or to the road	500	6	Both	7
39	Overload or protruding load from a heavy vehicle without permission	500	6	Both	7
40	Driving a vehicle that causes pollution	500	-	Both	-
41	Stopping on the road for no reason	500	4	In presence	-
42	Stopping on a yellow box	500	4	Both	-
43	Not giving pedestrians way on pedestrian crossing	500	6	Both	-
44	Failure to abide by traffic signs and directions	500	6	Both	-
45	Throwing waste from vehicle on the road	500	4	Both	-
46	Refusing traffic police name and address when required	500	-	In presence	-
47	Stopping vehicle on the left side of the road in prohibited places	500	-	Both	-
48	Stopping vehicle on pedestrian crossing	500	-	Both	-
49	Teaching driving in a training vehicle that does not bear a learning sign	500	-	In presence	-
50	Teaching driving in a non-training vehicle without permission from the licensing authority	500	-	Both	-
51	Placing marks on the road that may damage the road or block traffic	500	-	Both	-
52	Operating industrial, construction and mechanical vehicles tractors without permission from licensing authority	500	-	In presence	7
53	Modifying vehicles engine without permission	400	-	In presence	-
54	Modifying vehicles chassis without permission	400	-	In presence	-
55	Changing vehicles color without permission	400	-	In presence	-
56	Exceeding maximum speed limit by more than 10kph	400	-	Both	-
57	Driving with a driving license issued by a foreign country except in permitted cases	400	-	In presence	-

	Violations	Fine	Traffic Points	In Presence In absence	Vehicle Confiscation
58	Violating the terms of driving license	300	-	In presence	-
59	Parking behind vehicles and blocking their movement	300	-	Both	-
60	Towing a vehicle or a boat with an unprepared vehicle	300	-	In presence	-
61	Driving a vehicle that omits gases or substances exceeding permitted rates	300	-	Both	-
62	Leaving a vehicle on the road with its engine running	300	-	Both	-
63	No lights on the back or sides of a trailer container	200	-	Both	-
64	Lights on back or sides of container not working	200	-	Both	-
65	Taxis which have designated pick up areas, stopping in undesignated places	200	4	Both	-
66	Prohibited entry	200	4	Both	-
67	Blocking traffic	200	-	Both	-
68	Vehicle unfit for driving	200	-	Both	7
69	Driving a light vehicle that does not comply with safety and security conditions	200	-	Both	7
70	Not lifting exhaust of trucks	200	-	Both	7
71	Not covering loads of trucks	3000	-	Both	7
72	Using vehicle for purpose other than designated	200	4	In presence	7
73	Heavy vehicle prohibited entry	200	4	Both	7
74	Violating loading and unloading regulations in parking			In presence	7
75	Carrying and transporting passengers illegally	200	4	In presence	7
76	Writing phrases or placing stickers on vehicle without permission	200	-	Both	-
77	Not taking road safety measures during vehicle breakdowns	200	-	Both	-
78	Turning at undesignated points	200	4	Both	-
79	Turning the wrong way	200	4	Both	-

	Violations	Fine	Traffic Points	In Presence In absence	Vehicle Confiscation
80	Loading a light vehicle in a way that may pose a danger to others or to the road	200	3	Both	7
81	Overload or protruding load on light vehicles without permission	200	3	In presence	7
82	Stopping vehicle without keeping the distance specified by the law from a curve or junction	200	-	Both	-
83	Transporting passengers by vehicle undesignated for this purpose	200	4	In presence	-
84	Sudden swerve	200	4	In presence	-
85	Driving a taxi without required license	200	4	In presence	-
86	Carrying passengers in driving training vehicle	200	4	In presence	-
87	Driving a taxi with an expired warranty	200	-	In presence	-
88	Reversing dangerously	200	-	Both	-
89	Taxi refusing to carry passengers	200	4		-
90	Falling or leaking load	3000	12		30
91	Not securing vehicle while parked	200	-		
92	Parking in prohibited places	200	2	In presence	-
93	Parking in loading and offloading areas without need	200	-	In presence	-
94	Parking on road shoulder except in cases of emergency	200	-	In presence	-
95	Using multi-colored lights	200	-		-
96	Not wearing helmet while driving motorbike	200	4		-
97	Exceeding passenger limit	200	3	In presence	-
98	Driving with tires in poor condition	200	-	In presence	-
99	Driving with an expired driving license	200	3	In presence	-
100	Not renewing vehicle registration after expiry	400	-	In presence	-
101	Driving unlicensed vehicle	200	-	In presence	7
102	Violation of laws of using commercial number plates	200	-	In presence	-

	Violations	Fine	Traffic Points	In Presence In absence	Vehicle Confiscation
103	Not fixing number plates in designated places	200	2	In presence	-
104	Driving with one number plate	200	2	In presence	-
105	Driving at night or in foggy weather without lights	200	4	In presence	-
106	Using not matching number plates for trailer and container	200	-	Both	-
107	Not fixing reflective stickers at the back of trucks and heavy vehicles	200	-	Both	-
108	Not using indicators when changing direction or turning	200	3	In presence	-
109	Not giving way for vehicles to pass on the left	200	-	Both	-
110	Not giving way to vehicles coming from the left where required	200	-	Both	-
111	Stopping a vehicle in a way that may pose danger or block traffic	200	3	Both	-
112	Failure to have vehicle examined after carrying out major modification to engine or body	200	-	In presence	7
113	Using training vehicles outside of timings specified by licensing authority	200	-	In presence	-
114	Using training vehicles in places not designated by licensing authority	200	-	Both	-
115	Overtaking from the right	200	4	Both	-
116	Overtaking in a wrong way	200	3	In presence	-
117	Driving an unlicensed vehicle	200	-	In presence	7
118	Abuse of parking space	200	3	Both	-
119	Number plates with unclear numbers	200	3	Both	-
120	Violating tariff	200	6	Both	-
121	Light vehicle lane discipline	200	2	Both	-
122	Parking vehicles on pavement	200	3	Both	-
123	Not showing vehicle registration card when required	200	-	In presence	-
124	Not showing driving license when required	200	-	In presence	-
125	Not fixing taxi sign where required	200	-	In presence	-
126	Not fixing a sign indicating licensed overload	200	3	In presence	-
127	Using interior lights for no reason while driving	100	-	In presence	-
128	Failure to abide by specified color for taxis or training cars	200	-	In presence	-

	Violations	Fine	Traffic Points	In Presence In absence	Vehicle Confiscation
129	Failure to display tariff of buses or taxis or not showing them when required	200	-	In presence	-
130	Broken lights	200	6	In presence	-
131	Using horn in prohibited areas	200	2	In presence	-
132	Driving below minimum speed limit	200	-	Both	-
133	Failure to keep taxis and buses clean inside and outside	200	-	In presence	-
134	Smoking inside taxis and buses	200	-	Both	-
135	Using hand-held mobile phone while driving	200	4	In presence	-
136	Not abiding by taxi drivers obligatory uniform or not keeping it in good condition	100	-	In presence	-
137	Calling on passengers in the presence of signs	100	-	Both	-
138	Not displaying truck's load on both sides	100	-	Both	-
139	Not carrying driving license while driving	100	-	In presence	-
140	Not carrying vehicle registration card while driving	100	-	In presence	-
141	Driving without spectacles or contact lenses	100	-	In presence	-
142	Not using interior light in buses at night	100	-	In presence	-
143	Broken indicator lights	100	2	In presence	-
144	Using horn in a disturbing way	100	2	In presence	-
145	Having no red light at the back of vehicle	100	-	Both	-
146	Opening left door of taxi	100	3	In presence	-
147	Pedestrians crossing from undesignated places (If any existed)	200	-	In presence	-
148	Crossing the red light at the intersection of the road from the railway and causing an accident leading to death	10000	-	-	-
149	Crossing the red light at the intersection of the road from the railway and causing an accident resulting injury	5000	-	-	-
150	Crossing the red light at the intersection of the road from the railway without causing an incident	2000	-	-	-

Part 16: Training Curriculum Information.

Heavy Motor Vehicle, Heavy / Light Bus Theory Lesson Curriculum

Aim: to provide knowledge and positive mindset to learner drivers

Duration: 8 lessons of 1 hour each

Lesson	Contents
1. Attitude and responsibilities of driver	<ul style="list-style-type: none"> • Attitude in driving. • Insurance and what it does not cover. • Consequences of traffic accident.
2. Knowledge on Traffic Rules and Regulations	<ul style="list-style-type: none"> • Road signs and road markings. • Traffic controls at intersections. • Speed limits. • Pedestrians crossing rules. • Turning and Roundabouts. • Rules on changing lanes and overtaking. • Towing and being towed. • Carrying of goods. <ul style="list-style-type: none"> - Load restrictions (Signs; height, width and weight). - Distribution of goods for stability. - Special travel permits for oversized loads. • Rules of transporting dangerous substances. • Restriction on heavy vehicles. • Carrying, alighting and boarding of passengers.
3. Characteristics of road users	<ul style="list-style-type: none"> • Car drivers. • Pedestrians. • Motorcyclists. • Cyclists. • Animals. • Characteristics of HMTV/H Bus and articulated. <ul style="list-style-type: none"> - Stopping distance comparison with other vehicle. - Blind areas.

Heavy Motor Vehicle, Heavy / Light Bus Theory Lesson Curriculum

Lesson	Contents
4. Driver's condition	<ul style="list-style-type: none"> Medication, fatigue, alcohol. Phone driving. Emotions. Vision and perception error. Reaction time and stopping distances. Safe following distances.
5. The environment	<ul style="list-style-type: none"> Night driving. <ul style="list-style-type: none"> How our eyes see at night. Colors affecting visibility. Headlight and high beams. Fog and sand storm. <ul style="list-style-type: none"> Visibility and Speed. Reports on accident causalities. Rain and floods. <ul style="list-style-type: none"> Visibility and Hydroplaning. Braking distance and Following distance. Assessing the flood waters. Passing through and thereafter. Natural forces acting on all vehicle.
6. Driving on freeways, Traffic violations and Route planning	<ul style="list-style-type: none"> Rules of freeways. <ul style="list-style-type: none"> Lane discipline. Dos and don'ts. Common traffic accidents and offences. Planning for suitable route. <ul style="list-style-type: none"> Sufficient time for journey. Selecting best routes. Detours to avoid congestion. Eco driving.
7. Developing Forecasting of hazards and emergencies when driving	<ul style="list-style-type: none"> Risk Forecast scenes of: <ul style="list-style-type: none"> Straight roads. Junctions. Night. Fog. Residential. School area. Emergencies. <ul style="list-style-type: none"> Stuck in sand Mechanical problems.
8. Traffic accidents case studies and How to act in an accident	<ul style="list-style-type: none"> Discuss various types of accidents. <ul style="list-style-type: none"> Crash with vehicle in front. Crash with vehicle behind. Crash with vehicle at junctions. Crash with passing vehicle. Crash with oncoming vehicle. Single vehicle crash. How to avoid the above accidents. What to do in an accident.

Practical Training Curriculum

STAGE 1 Basic vehicle operations.

Important: Must Complete Theory Lessons 1 and 2 before commencing practical lessons

Subjects		Requirement
1.01	Inspection of vehicle	Able to inspect the engine condition, components in the engine compartment and the external condition of the vehicle to ensure in proper working order.
1.02	Estimation of height	Able to visually estimate the height of the load within 25 cm difference.
1.03	Entering and leaving the vehicle	Able to: 1. Know the procedures of getting into and leaving the vehicle safely. 2. Secure the vehicle.
1.04	Vehicle instruments and controls	Able to: 1. Know the functions of all the instruments and gauges. 2. Perform dry run practice on all the controls.
1.05	Driving position and visibility	Able to adjust mirrors and adopt correct driving position for good all round visibility of the front and the rear.
1.06	Securing of load / passenger safety	Able to: 1. Secure the load by using various methods. 2. Ensure all passengers are seated and seat belts used.
<p>Important: Learners with no driving license of LMV from foreign countries must be trained to use manual transmission of the Light Motor Vehicle (LMV) from subjects 1.07-1.12. This training must be conducted in the yard. Once completed, training can resume with HMV / Heavy Bus on subjects 1.07 onwards.</p>		
1.07	Starting and stopping the engine	Able to start and stop the engine safely.

Practical Training Curriculum

STAGE 1 Basic vehicle operations.

Subjects		Requirement
1.08	Moving off and stopping	<p>Able to:</p> <ol style="list-style-type: none"> 1. Co-ordinate the accelerator, clutch and brake pedals. 2. Move and stop the vehicle smoothly. 3. Prevent the engine from stalling.
1.09	Gear changing	<p>Able to:</p> <ol style="list-style-type: none"> 1. Know when to change gears. 2. Change gears smoothly without crashing of gears. 3. Manage the steering wheel without zigzagging when changing gears.
1.10	Steering control	Able to steer the vehicle within the lane on a straight road and bends.
1.11	Slowing down and Stopping at a precise spot	<p>Able to:</p> <ol style="list-style-type: none"> 1. Check the mirrors before slowing down and stopping. 2. Reduce speed by using engine brake and foot brake. 3. Stop within 0.5 m of a target.
1.12	Slope/gradient in the yard (Part 1)	<p>Able to stop and move off on a slope/gradient without:</p> <ol style="list-style-type: none"> 1. Stalling engine, excessive revving or jerking. 2. Rolling backwards more than 30 cm.
1.13	Wheel track difference	Able to identify the difference in path of the front and rear wheels and provide sufficient clearance when making right and left turns.
1.14	Review and evaluation	Able to perform all the requirements in stage one to the required standards independently.

Practical Training Curriculum

STAGE 2 Driving on Light to Medium Density Traffic

Subjects		Requirement
2.01	Mirrors, signals, and blind spots	<p>Able to:</p> <ol style="list-style-type: none"> 1. Check mirrors every 5-10 seconds. 2. Give signals at least 3 seconds in advance. 3. Head check for blind spot correctly at least 1 second before maneuver. 4. Keep away from other vehicle's blind spots.
2.02	Moving out and stopping at the side of the road	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures (mirrors, signal and head check). 2. Move out and stop at the side of the road with safety procedures. 3. Stop the vehicle without any part of it protruding.
2.03	Scanning technique	Able to scan for hazards at least 10-12 seconds ahead.
2.04	Passing hazards	<p>Able to:</p> <ol style="list-style-type: none"> 1. Pass hazards with side clearance of at least 0.5m for stationary and 1.5m for moving vehicles. 2. Pass hazards safely and legally with consideration to other traffic.
2.05	Traffic signs, signals and road markings	<p>Able to:</p> <ol style="list-style-type: none"> 1. Apply appropriate rules on traffic signs, signals, yellow box and road markings. 2. Drive in compliance to all traffic rules and regulations. 3. Ensure lane discipline.
2.06	Pedestrian crossings	<p>Able to:</p> <ol style="list-style-type: none"> 1. Identify and apply pedestrian crossings rules. 2. React safely to pedestrian behaviors and give way to them. 3. Keep at least 1.5 meter gap from pedestrians.

Practical Training Curriculum

STAGE 2 Driving on Light to Medium Density Traffic

Subjects		Requirement
2.07	Managing speed	<p>Able to:</p> <ol style="list-style-type: none"> 1. Accelerate quickly and change up gears in clear traffic. 2. Change down gears to match the lower speed. 3. Adjust speed according to road and traffic conditions.
2.08	Right turns and slip roads <ul style="list-style-type: none"> • Major to minor roads • Minor to major roads 	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Position correctly before turning. 3. Give way to road users with the right of way. 4. Steer within the lane without striking kerb or hazards. 5. Adjust speed after turning.
2.09	Changing lane (where applicable)	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Judge the speed and distance of approaching vehicles with the aid of mirrors. 3. Change lanes to the left and right smoothly without causing danger and inconvenience to approaching vehicles. 4. Change lanes at the appropriate locations.
2.10	Left turns <ul style="list-style-type: none"> • Major to minor roads • Minor to major roads 	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Position correctly before turning. 3. Give way to road users with the right of way. 4. Steer within the lane without striking kerb or hazards. 5. Regulate speed after turning.

Practical Training Curriculum

STAGE 2 Driving on Light to Medium Density Traffic

Subjects		Requirement
2.11	Driving on narrow roads public roads	<p>Able to:</p> <ol style="list-style-type: none"> 1. Positioning correctly. 2. Sense the vehicle length and width. 3. Steer within the lane without striking kerb or hazards.
2.12	Roundabouts (where applicable) <ul style="list-style-type: none"> • Right turns • Straight • Left turns • U-turns 	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Position correctly before approaching roundabout. 3. Give appropriate signals before entering and leaving roundabout. 4. Know the speed, distance and intentions of vehicles in the roundabout. 5. Adjust appropriate speed in the round about. 6. Perform right, left, U-turns and going straight safely.
2.13	Slope/gradient on public roads (Part 2 - where applicable)	<p>Able to:</p> <ol style="list-style-type: none"> 1. Adjust speed before going up the slope/gradient. 2. Stop and move off without: <ul style="list-style-type: none"> - Stalling engine, excessive revving or jerking. - Rolling backwards more than 30 cm. 3. Use engine brake effectively when going down slope/gradient.
2.14	Review and evaluation	Able to perform all the requirements in stage two independently basing on 50% pass of Practical Road Test Score Sheet.

Practical Training Curriculum

STAGE 3 Driving on Medium to Heavy Density Traffic

Subjects		Requirement
3.01	Driving at traffic light controlled junctions	<p>Able to:</p> <ol style="list-style-type: none"> 1. Apply appropriate rules on traffic signs, signals, yellow box and road markings. 2. Adjust the appropriate speed and lane discipline. 3. Scan for hazards within 20 meters of junctions. 4. Anticipate road user's behavior. 5. Apply 'Cover Brake' technique.
3.02	Managing speed (up to 80 km/h)	<p>Able to:</p> <ol style="list-style-type: none"> 1. Accelerate quickly and change up gears in clear traffic. 2. Change down gears to match the lower speed. 3. Adjust speed according to road and traffic conditions. 4. Downshift for effective engine braking.
3.03	Safe following distance	<p>Able to:</p> <ol style="list-style-type: none"> 1. Apply '4 second rule' of safe following distance. 2. Apply '6-8 second rule' of safe following distance, in adverse driving conditions. 3. Apply 'intermittent brake' to warn vehicles at the rear when stopping.
3.04	Right turns and slip roads <ul style="list-style-type: none"> • Major to minor roads • Minor to major roads 	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Position correctly. 3. Give way to road users with the right of way. 4. Steer within the lane without striking kerb or hazards. 5. Regulate speed after turning.

Practical Training Curriculum

STAGE 3 Driving on Medium to Heavy Density Traffic

Subjects		Requirement
3.05	Changing lanes	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Judge the speed and distance of approaching vehicles with the aid of mirrors. 3. Change lanes to the left and right smoothly without causing danger and inconvenience to approaching vehicles. 4. Change lanes at the appropriate locations.
3.06	Left turns <ul style="list-style-type: none"> • Major to minor roads • Minor to major roads 	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Position correctly. 3. Give way to road users with the right of way. 4. Steer within the lane without striking kerb or hazards. 5. Regulate speed after turning.
3.07	U-Turns <ul style="list-style-type: none"> • Open type • Closed type • At junctions 	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Position correctly. 3. Give way to road users with the right of way. 4. Steer within the lane without striking kerb or hazards. 5. Complete U-turn without zigzagging 6. Regulate speed after turning. 7. Perform open, closed and at junction U-turns safely.
3.08	Multi-lane Roundabouts <ul style="list-style-type: none"> • Right turns • Straight • Left turns • U-turns 	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Position correctly before approaching roundabout. 3. Give appropriate signals before entering and leaving roundabout. 4. Know the speed, distance and intentions of vehicles in the roundabout. 5. Adjust appropriate speed in the round about. 6. Perform right, left, U-turns and going straight safely.

Practical Training Curriculum

STAGE 3 Driving on Medium to Heavy Density Traffic

Subjects		Requirement
3.09	Overtaking & being overtaken	<p>Able to:</p> <ol style="list-style-type: none"> 1. Perform safety procedures. 2. Overtake slow moving vehicles. 3. Identify areas that are prohibited to overtake. 4. React properly when being overtaken.
3.10	Risk Forecast Training	<p>Able to:</p> <ol style="list-style-type: none"> 1. Identify and forecast hidden risks and dangers. 2. Anticipate the behaviors of road users. 3. Take counter measures to prevent a crash.
3.11	Courteous and Considerate Driving	<p>Able to:</p> <ol style="list-style-type: none"> 1. Give way to road users when necessary. 2. Show courtesy and consideration to road users.
3.12	Night-time driving (minimum 1 hour)	<p>Able to:</p> <ol style="list-style-type: none"> 1. Check all lights are in working order. 2. Use headlights and high beam according to traffic and road conditions. 3. Identify different colors that affect visibility. 4. Adjust speed within headlight range. 5. Avoid being dazzled with the high beam.
3.13	Review and evaluation	Able to perform all the requirements in stage three independently basing on 75% pass of Practical Road Test Score Sheet.
3.14	Internal Road Assessment	Able to perform all the requirements in stage three independently basing on 75% pass of Practical Road Test Score Sheet.

Practical Training Curriculum

STAGE 4 Skill driving in the yard (Note: may be practiced after completion of stage 1)

Subjects		Requirement
4.01	Slope/gradient in the yard Part 3	<p>Able to:</p> <ol style="list-style-type: none"> 1. Adjust speed before going up the slope/gradient. 2. Stop and move off without: <ul style="list-style-type: none"> - Stalling engine, excessive revving or jerking. - Rolling backwards more than 30 cm. 3. Move off in less than 60 sec after stopping. 4. Use engine brake effectively when going down slope/gradient.
4.02	'Offset' Reversing on left and right sides	<p>Able to:</p> <ol style="list-style-type: none"> 1. Check safety at the rear and surrounding before boarding and reversing. 2. Confirm safety before maneuvering. 3. Maneuver without 'DRY steering'. 4. Maneuver without touching any poles/cones or crosses the lines. 5. Position the vehicle inside the designated lots without additional reverse movements. 6. Complete the required maneuvers in less than 7 minutes.
4.03	Review and evaluation	<p>Review and evaluation basing on the HMT/HT Yard Score Sheet:</p> <ol style="list-style-type: none"> 1. Estimation of Height. 2. Securing of Load. 3. All the subjects in stage four.
4.04	Internal Road Assessment	<p>Able to meet the requirements according to the HMT/HT Yard Score Sheet of the following:</p> <ol style="list-style-type: none"> 1. Estimation of Height. 2. Securing of load. 3. Slope/gradient. 4. 'Offset' Reversing on both sides

Practical Training Curriculum

STAGE 5

Subjects		Requirement
RTA Yard Tests (may only be conducted after passing the Internal Yard Assessment)		
5.01	RTA Yard Test	<p>Able to meet the requirements according to the HMV/HB Yard Score Sheet of the following:</p> <ol style="list-style-type: none"> 1. Estimation of Height. 2. Securing of load. 3. Slope/gradient. 4. 'Offset' Reversing on one side only.
RTA Road Tests (may only be conducted after attending theory lessons 1-8, passed the Knowledge Test, passed RTA Yard test and Internal Road Assessment).		
5.02	RTA Road Test	<p>Able to meet the requirements according to the Practical Road Test Score Sheet.</p>

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Note :

Roads and Transport Authority has the right to modify any item/s on this handbook at any time, according to new legislation, regulations and policies.

(This handbook is the official reference document for the RTA Theory Driving Test)

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