1. GLOSSARY

1.1. SUBSECTION TITLE

Automotive glossary	Automotive glossary

1.2. HEADLINE

Understanding the language	Understanding the language

1.3. INTRODUCTION TEXT

Automotive terms can sometimes be confusing. Here's a list of definitions to help you understand them.	Automotive terms can sometimes be confusing. Here's a list of definitions to help you understand them.

1.4. GLOSSARY

Word	Meaning
4WD	Four wheel drive. All four wheels are directly driven from the engine.
ABS	Anti-lock braking system. ABS repeatedly releases and applies the brakes, in a fraction of a second, to prevent wheels from locking and keep the car in control.
Active safety	Safety features which involve active vehicle response to avoid accidents (usually through sensors), e.g. ABS or ESP.
Airbag	Air-filled bag that helps prevent head and upper-body injuries during severe collisions. Front airbags are deployed from the steering wheel and the instrument panel. Side airbags are deployed from the door and curtain airbags drop from the roof.
all mode 4x4	A 4x4 system that engages automatically when conditions (like mud, snow and slush) demand it. Provides maximum traction and instant response.
Automatic gear box	Automatic transmissions that upshift and downshift gears without requiring the driver to engage the clutch.
Birdview	Nissan navigation system. Using 3D graphics, Birdview simulates the view of the route ahead from the viewpoint of a hovering bird.
Body type	The type of vehicle as determined by the shape or style of its body, e.g. sports car, off-road vehicle, etc.
Bore x Stroke	In an engine, the relation between the diameter of the cylinder bore and the length of the stroke of the piston. This measurement tells you if the engine is designed to deliver more speed or more torque. A long-stroke engine (where the length of the piston stroke is greater than the diameter of the bore of a cylinder) delivers more torque at the expense of maximum power; while a short-stroke engine delivers more engine power with less low-end torque.
Chassis	The frame that supports the body, engine,

	drivetrain and suspension components of a vehicle.
Clutch	A drivetrain component that connects an engine to a manual transmission and is used to disengage the transmission from the engine in order to change gears. The driver pushes the clutch pedal to shift gears.
CO2 emission	The amount of carbon dioxide fumes produced by a vehicle. CO2 is a pollutant.
Coil springs	A spring made from wire that has been wound into a spiral shape. Coil springs are used in the suspension of many vehicles
Combi	The name of Nissan's Interstar model which can carry both passengers and cargo. The Combi can seat 5, 6, 8 or 9 people.
Common Rail	A diesel direct fuel-injection system that maintains constant pressure throughout the fuel line. The engine's electronics regulate the injection pressure and timing according to engine speed and load.
Crawl ratio	Crawl ratio is calculated by multiplying transmission gears, transfer case (in 4Lo) and axle differentials. The lower the crawl ratio is, the slower a vehicle can "crawl" in first gear and low range. Low crawl ratios mean higher torque available at the wheels, good for climbing steep gradients.
CVT gear box	Continuously Variable Transmission. The transmission ratio changes progressively and not in step like a manual gearbox. This system uses a metallic V belt. Nissan uses a V roller.
Differential	Transmission part located between the gearbox and wheels. The differential allows a speed difference between left and right wheels or between front and rear axles to avoid wheels scrubbing.
Direct injection	Engine system where petrol or diesel is injected directly into the engine cylinder instead of in a pre-combustion chamber or manifold. Direct injection provides more efficient combustion with lower consumption and gas emissions.
Disc brake	A braking system where a calliper forces a pair of brake pad against the disc rotor in each wheel, stopping the vehicle.
Drum brake	A braking system where a hydraulic cylinder forces a pair of brake shoes against the inner surface of the brake drum, which is a metal cylinder, in order to stop the vehicle.
EBD	Electronic Brakeforce Distribution: Function integrated to some ABS systems to distribute the brake force in an optimal way between the front and the rear wheels, whatever the load or the pressure on the brake pedal.
EGR (Exhaust Gas Recirculation)	The EGR system collects one part of the exhaust gas and diverts them back to the engine via the intake manifold. It reduces the amount of oxygen used in the combustion process and thus also reduces temperature peak and nitrogen

	oxide emission.
ESP	Electronic Stability Program. ESP automatically stabilises the vehicle in dangerous driving situations by applying brake pressure to each wheel individually and reducing engine torque if necessary. It uses many sensors to measure the turning speed of the wheels, the steering angle and the rotation of the vehicle around the vertical axis.
Fuel cell	Power system prototype. The fuel cell generates electric power by combining oxygen and hydrogen. Its only waste product is water steam.
Fuel injection	Fuel injection delivers fuel under pressure into an engine's combustion chamber.
GPS	Global Positioning System, used in navigation devices. Using satellite technology, GPS pinpoints the vehicle's location so the navigation system can provide directions to the driver.
Ground clearance	Distance from the bottom of the car to the ground.
Isofix child seat	The standard for child seat fastening, common to all car manufacturers
McPherson strut suspensions	Suspension combining shock absorbers and springs in the same unit.
NATS *(please add the N for Nissan at the end of definition)*	Nissan Anti-Theft System. An alarm upgrade with perimetric exterior and ultrasonic interior protection. The “N” in NATS signifies Nissan.
NBAS *(please add the N for Nissan at the end of definition)*	Nissan Brake Assist System amplifies the pressure applied to brakes, helping the vehicle stop faster in an emergency. The system measures the force the driver applies to the brake pedal. Once this force exceeds a preset amount, brake assist applies the brakes fully to give shortest stopping distance in an emergency. THE “N” IN NBAS signifies Nissan.
N-Form	Nissan's intelligent control system. It groups commonly used functions onto one central console. Essential information is displayed on a screen in the instrument panel.
Passive safety	Safety features that protect the occupants in the event of an accident.
Payload	The load that a vehicle can carry, excluding passengers and fuel.
Power steering	A steering system using hydraulic or electrical assistance to make steering effort lighter.
Propeller shaft	Also known as drive shaft. The shaft that transmits power from the transmission to the differential in a rear-drive vehicle.
Rear Parking sensor and rear view camera	Sensors in the bumper that detect obstacles within 1,5 metres behind the vehicle and emit an intermittent signal to alert the driver how much space is left. The signal becomes continuous if the obstacle is closer than 30 cm. The rear view camera provides a view of what’s behind the vehicle.
Suspension	The portion of a vehicle that connects the wheels to the frame and controls ride quality and handling. Most suspensions feature coil springs or

	leaf springs, shock absorbers, anti-roll bars and a system of linkages.
Torque	Turning power produced by the engine. The acceleration the driver feels is a result of the torque.
Transfer case	A drivetrain component found on 4-wheel-drive vehicles. When the vehicle is shifted into 4-wheel-drive mode, the transfer case sends power to the front wheels.
Turbo	Short for turbocharger, a rotary compressor or pump that is powered by exhaust gases. The turbo forces more air into the engine's cylinders, allowing it to burn more fuel and produce more power.
Wheelbase	The distance between the centre of the front wheel and back wheel. A long wheelbase vehicle typically gives more cabin space.
Xenon lamps	Lamp bulb which generates light by an electric arc simulating a daylight environment. Its lighting power is greater than conventional halogen lamps to give better visibility, yet it consumes less energy.