

When you go through an automotive brochure or car and bike reviews, you would have come across various terminologies. Let's have a look at them.

RTR – Racing Throttle Response
AWD – All Wheel Drive
ASG – Automatic-Shift Gearbox
A/F – Air Fuel Ratio
ACM – Airbag Control Module
ACC – Automatic Climate Control or Adaptive Cruise Control
A/C – Air Conditioning
AAT – Ambient Air Temperature
ABS – Antilock Braking System
CVT – Continuous Variable Transmission
MPFI – Multi Point Fuel Injection
CRDi – Common Rail Direct Injection
CRDe – Common Rail Diesel Engine
DDIS – Direct Diesel Injection System
DICOR – Direct Injection Common Rail
TDI – Turbocharged Direct Injection
TCDI – Turbocharged Common Rail Direct Fuel Injection
TDCI – Turbo Diesel Common Rail Injection
FGT – Fixed Geometry Turbocharger
WGT – Waste Gas Turbocharger
VGT – Variable Geometry Turbocharger
VNT – Variable Nozzle Turbine
GDI – Gasoline Direct Injection
DTS-i – Digital Twin Spark Ignition
DTS-Si – Digital Twin Spark Swirl Induction
DTS-Fi – Digital Twin Spark Fuel Injection
DTS-I – Digital Triple Spark Ignition
BHP – Brake Horse Power
HP – Horse Power
VTVT –Variable Timing Valve Train
VVT/VTEC – Variable Valve Timing
VVTi – Variable Valve Timing with intelligence
SOHC – Single OverHead Camshaft
DOHC – Double OverHead Camshaft
SUV – Sport Utility Vehicle
TSI – Turbocharged Stratified Injection
MUV – Multi Utility vehicle
SAE – Society of Automotive Engineers
HCV – Heavy Commercial Vehicle
LCV – Light Commercial Vehicle
CVTi – Charged motion Variable Time Ignition

CCVTi – Controlled Combustion Variable Timing Ignition
EBD – Electronic Brakeforce Distribution
BMEP – Brake Mean Effective Pressure
BSFC – Brake Specific Fuel Consumption
CC – Cubic Capacity
CDI – Capacitor Discharge Ignition
C.I. Engine – Compression Ignition Engine
CNG – Compressed Natural Gas
DFI – Digital Fuel Injection
DI Engine – Direct Injection Engine
EC Engine – External Combustion Engine
FHP – Frictional Horse Power
GVW – Gross Vehicle Weight
HVAC – Heating ventilating and Air Conditioning
I.C. Engine – Internal Combustion Engine
IHP – Indicated Horse Power
IMEP – Indicated Mean Effective Pressure
ISFC – Indicated Specific Fuel Consumption
KPH – Kilometer Per Hour
KPL – Kilometer Per Liter
OHV – Over Head Valve
SFC – Specific Fuel Consumption
S.I. Engine – Spark Ignition Engine
VDB – Ventilated Disc Brake
4WD – Four Wheel Drive
FWD – Front Wheel Drive
RWD – Rear Wheel Drive
2WD – Two Wheel Drive
TC – Traction Control
ESC – Electronic Stability Control
ARAI – Automotive Research Association of India
EGR – Exhaust Gas Recirculation
EVRV – Electronic Vacuum Regulator Valve
SRS Airbag – Supplemental Restraint System
LSPV – Load Sensing Proportioning valve
DGS – Direct Shift Gearbox

Acronyms with usage:

ABC - Active Body Control The suspension alters its characteristics to keep body roll to a minimum under hard cornering.

ABS - Antilock Braking System Prevents the wheels of a car locking up and skidding under heavy braking so control and steering is maintained.

AC - Acceleration Control for A/T This system curbs sudden acceleration when the driver steps on the accelerator by mistake, by unintentional pedal operation. The system comes into effect if the driver presses the accelerator pedal more than a prescribed amount when the vehicle is stopped and the laser sensor detects an obstacle in front. It checks sudden acceleration by curbing engine output while alerting the driver with an alarm and a warning light displayed on the meter display.(Mazda)

ACC - Active Cruise Control Using a front-mounted RADAR, ACC detects slower vehicles ahead and will maintain a relative speed to ensure a safe following distance. Also known as Adaptive Cruise Control.

AFS - Adaptive Front-lighting System The Adaptive Front-lighting System (AFS) optimizes distribution of light from the headlights according to driving circumstances. Depending on vehicle speed and steering input, the system points the low-beams headlights in the direction the driver intends to travel.

AFM - Active Fuel Management During light operation the engine can shut off cylinders so less fuel is used. Also known as MDS (Multi Displacement System), VCM(Variable Cylinder Management),or COD(Cylinder On Demand)

A Pillar Vehicle Body Structure The steel body panel on the side of the windscreen going from the bonnet line to the roof.

B Pillar Vehicle Body Structure The steel body panel running from the floor to the roof between the front and rear doors.

C Pillar Vehicle Body Structure The steel body panel next to the rear window, running from the boot line to the roof.

ANCAP Australasian New Car Assessment Program Organisation set up to provide new car buyers with independent and information on the level of occupant protection provided by vehicles in serious front and side crashes.

ANC - Active Noise Cancellation (ANC) is designed to dramatically reduce low frequency noise in the interior.

ASR - Anti-Slip Regulation Traction Control.

Function of Electronic Stability Control (ESC) designed to prevent loss of traction of the driven road wheels.

ASS - Auto Start Stop or Auto Stop Start System that automatically shuts down and restarts the internal combustion engine to reduce the amount of time the engine spends idling, thereby reducing fuel consumption and emissions.

ATC - Active Traction Control Used primarily in off road 4×4 applications ATC brakes spinning wheels and diverts torque to other wheels to gain traction in slippery surfaces. Also often referred to as A-Trac.

ATS - Active Torque Split The ATS All-Wheel-Drive system uses real-time input data on steering angle, yaw rate, lateral G-force and engine status to determine road surface and driving conditions. The electronic differentials are adjusted accordingly.

AUC Active Understeer Control The Active Understeer Control system utilizes intelligent control logic and high-response brake actuators to brake the inside front wheels during cornering (as required) to increase yaw-moment using the Vehicle Dynamic Control (VDC)/Traction Control System (TCS) as its base.

AVM - Around View Monitor AVM enables you to have a bird's-eye view of your vehicle while you park, ensuring that you're aware of all of your surroundings. (Nissan)

AWD - All Wheel Drive Popular terminology for permanent four-wheel drive systems. Vehicle can distribute power to all four wheels rather than just to the front or rear wheels only. Also 4wd, 4×4.

BAS - Brake Assist System (Kia)BAS (brake assist system) instantly increases braking power in an emergency situation to shorten the braking distance.

BLIS BLW Blind Spot Information System System using radar to inform driver of vehicles in the proximity of the rear of the car. Handy when changing lanes. Or BSW Blind Spot Warning (Nissan).

BSM - Blind Spot Monitoring A blind spot monitor is a vehicle-based sensor device that detects other vehicles located to the driver's side and rear. Warnings can be visual, audible, vibrating or tactile. However, blind spot monitors are an option that may include more than monitoring the sides of the vehicle. It can include "Cross Traffic Alert," "which alerts drivers backing out of a parking space when traffic is approaching from the sides" CBA City Brake Assist or City-Brake Active System Gives audio and visual warnings to the driver when the system recognises a high risk of collision. If no action taken, will automatically apply the brakes to avoid collision.

CBC - Cornering Brake Control The CBC (Cornering Brake Control) system is activated when the car goes round a bend while braking. In this case, the braking pressure is discharged individually onto each wheel in order to maintain vehicle stability, minimising any understeer or oversteer.

CRD - Common Rail Diesel A single, highly pressurised fuel line supplies diesel to all cylinders allowing for finer control over fuel use. Vastly reduces diesel engine's noise and improves fuel economy.

CV - Joint Constant Velocity Joint A mechanical coupling that allows drive shafts not in the same plane, to spin at the same speeds.

CVT - Continuously Variable Transmission A continuously variable transmission is an automatic transmission that can vary drive ratios seamlessly using an internal belt and cone arrangement.

DAC - Downhill Assist Control A safety feature intended for off-road use. The vehicle's ABS and throttle control systems to maintain a gradual, more controlled decent on steep or slippery off-road surfaces.

DOHC - Double Overhead Camshaft A now very common engine design that places two camshafts (one to operate inlet valves, one to operate exhaust valves) mounted above the cylinder head.

DRL - Daytime Running Lamps Vehicle front lamps used to increase visibility for daytime driving.

DST - Dynamic Steering Torque This function integrates the electric steering into the operation of VDC. This active electronic steering system improves both driving safety and handling performance. In all driving conditions, the electronic steering suggests the correct manoeuvres for the driver to perform, allowing excellent grip performance and providing a great sense of safety.

DSG - Direct Shift Gearbox A computer controlled manual gearbox that pre selects additional gears to the current driven gear. No clutch pedal is required and the next gear can be engaged very rapidly.

DPF - Diesel Particulate Filter A devise designed to remove diesel particulate matter or soot from the exhaust gas of a diesel engine.

DSC - Dynamic Stability Control DSC helps prevent understeer or oversteer by managing the braking force and engine torque delivered to individual wheels, maximising traction on the road surface.

DTC - Diagnostic Trouble Code A code retrieved from a vehicle self diagnostic system. Obtained by a manufacture special scan tool. Alerting the vehicle operator by way of warning light or display.

EBA - Emergency Brake Assist Brake-assist monitors brake pedal force and input speed to determine when emergency braking is occurring. When detected, it automatically applies maximum braking force to all wheels.

EBD - Electronic Brake Distribution Electronically controls and distributes appropriate brake pressure to all brakes dependant on load and braking force. Replaces traditional mechanical brake proportioning valve.

ECU - Electronic Control Unit An ECU is an electronic “brain” which controls a system in a car, such as the engine management system, transmission or body electrics.

ECT - Engine Coolant Temperature Used to monitor engine coolant temperature, giving an indication of engine temperature. Via gauge or light.

ECTS - Electronic Control Throttle System Provides an all-electronic system able to detect throttle pedal position by means of a series of sensors. It then relays that information to a computer which instantaneously activates the throttle by means of a DC motor. Also known as FLY BY WIRE/DRIVE BY WIRE.

ECM - Electronic Control Module An ECM is an electronic “brain” which controls a system in a car, such as the engine management system, transmission or body electrics.

EDC - Electronic Damper Control An EDU-controlled wheel suspension system that adjusts the shock absorbers and regulates damper forces electronically adapting to changing road, load or driving conditions.

EDL - Electronic Diff Lock Electronically brakes a spinning wheel, transferring torque across the axle to the opposite wheel.

EFI - Electronic Fuel Injection EFI systems replace carburettors as fitted to older vehicles. The electronically controlled fuel injectors deliver fuel more efficiently, improving economy, emissions and drivability.

EGR - Exhaust Gas Recirculation A proportion of exhaust gasses are redirected back into the engine to help burn fuel more efficiently and significantly reduce harmful emissions.

EGT - Exhaust Gas Temperature Used to monitor the exhaust gas temperature of an internal combustion engine.

ELR - Emergency Locking Retractor Seatbelts which are always unlocked except in emergency situations such as rapid deceleration, rapid acceleration or hard cornering manoeuvres.

EPS - Electric Power Steering Uses an electric motor to provide directional control to the driver, without any hydraulic systems.

ESP - Electronic Stability Programme Dramitically helps in correcting vehicle instability during uncontrollable under or over steer situations by measuring lateral acceleration at the car's centre of gravity. And applying the brakes to individual wheels to keep the vehicle heading in the right direction. Also known as VSA, DSC, ESC.

ESS - Emergency Signal System The Emergency Signal System (ESS) causes the hazard lights to flash at high speed if the driver suddenly brakes when traveling at high speed.

FCM - Forward Collision Mitigation Radar is used to identify obstructions ahead and warn of a potential collision. If the risk remains, this system applies the brakes to mitigate a collision.

FOW - Forward Obstruction Warning Forward Obstruction Warning (FOW) detects vehicles or obstacles in front of the car using a millimeter-wave radar. The system calculates the distance to the object in front and, if the car gets close enough that there is a risk of collision, sounds an alarm and displays a visual alert, prompting the driver to apply the brake.

FSI - Fuel Stratified Injection Petrol is injected at high pressure directly into the combustion chamber; the air fuel mixture can run far leaner than conventional EFI systems so is more efficient.
Also known as DI (Direct Injection) or GDI (Gasoline Direct Injection).

FWD - Front Wheel Drive Engine power is delivered through the front wheels. More common today than Rear Wheel Drive. Also 2wd, 2x4

GVW - Gross Vehicle Weight The maximum recommended weight for a vehicle, including: the weight of the vehicle itself, fuel and other fluids, passengers, and all cargo.

GDI - Gasoline Direct Injection Very high pressure fuel injection directly into the engine combustion chamber. Enabling increased efficiency of engine operation. Also known as DI,FSI.

i-ELOOP - Intelligent Energy Loop A brake energy regeneration system. Mazda uses this to power to relieve the engine from the need to produce this electricity for your in-car stereo, navigation system, lights, and anything else electrical.

IPAS - Intelligent Parking Assist System APGS Advanced Parking Guidance, Automatic Parking. Assists drivers parking their vehicles, with little input from the user.

HAC - Hill Assist Control A safety feature intended for off-road use. Helps prevent the vehicle from rolling backward or slipping sideways when performing hill start on steep or slippery gradients.

HBC - High Beam Control High Beam Control (HBC) detects oncoming and preceding vehicles and automatically switches between high and low beams during night driving, making it easier for the driver to recognize hazards.

HDC - Hill Decent Control Allows a smooth and controlled hill descent in rough terrain without the driver needing to touch the brake pedal. When on, the vehicle will descend using the ABS brake system to control each wheel's speed. If the vehicle accelerates without driver input, the system will automatically apply the brakes to slow down to the desired vehicle speed.

HSA - Hill Start Assist Keeps the brakes applied even when the driver has taken their foot off the brake pedal. Brake releases when the vehicle starts moving.

HEV - Hybrid-Electric Vehicle Vehicle which combines a conventional internal combustion engine propulsion system with an electric propulsion system.

HID - High Intensity Discharge High Intensity Discharge lighting technology uses electric inducers to provide an arc inside a gas-filled bulb, enhancing night driving. Only trained technicians should maintain the system.

HDI/TDI - High-pressure Direct Injection Diesel direct injection engine. Also referred as TDI. Injecting high pressure fuel directly into the engine combustion chamber. Improving engine efficiency.

IMA - Integrated Motor Assist. The IMA uses an electric motor mounted between the internal combustion engine and transmission to act as a starter motor, battery charger, and assist the internal combustion engine with extra power and torque.

ISOFIX International Standards Organisation Method to fit child seats into cars easily as well as safely, in America this standard is called LATCH (Lower Anchor and Thethers for Children).

LDW - Lane Departure Warning The system recognizes the lane in which the car is traveling. When the driver unintentionally drifts out of the travelling lane, the system alerts the driver with a visual warning on the display and an audible signal.

LED - Light Emitting Diodes Semiconductors that emit light when an electric current is applied. Increasingly popular in vehicle lighting as they have a much quicker response time and last longer.

LEV - Low-Emission Vehicle Vehicle which emits low levels of exhaust emissions, anti pollution.

LKAS - Lane Keep Assist System Lane Keep Assist System is designed to keep you from drifting out of your lane. Only available when travelling above 72kph – the system uses a camera to detect lane markings.If activated and you move out of your lane

without indicating, you'll get visual and audible alerts. If you don't react, the steering will be automatically adjusted to get you back on track.(Honda)

LPG - Liquid Petroleum Gas LPG is a popular alternative fuel to petrol or diesel. The cost per litre is less than petrol but it is less fuel efficient.

LSD - Limited Slip Differential A Limited Slip Differential allows two driving wheels to operate in unison when one breaks traction. It provides improved control and traction in slippery conditions.

LWB - Long Wheel Base Front and rear axles are further apart therefore the body or cargo deck of a commercial vehicle will be longer than other model variations.

MIL - Malfunction Indicator Lamp Also known as a check engine light, is a tell-tail to indicate malfunction of a computerized engine management system.

MMI - Multimedia Interface MMI consists of a single integrated interface, which controls a variety of devices and functions of the car. The system consists of the MMI terminal and the MMI display screen.

MOD - Moving Object Detection By detecting moving objects around the car and alerting the driver, this technology enhances safety when pulling out of a parking space, helping give drivers better awareness of their surroundings and increased peace of mind.

MRCC - Mazda Radar Cruise Control Uses a millimeter wave radar to judge the relative speed and distance to the car ahead and automatically controls vehicle speed.

MSR - Motor Slip Regulation MSR is a system to prevent the engine locking during over-run that gradually adapts engine braking action to the driving situation.

NCAP - New Car Assessment Programme The New Car Assessment Programme is an independent assessment of the safety performance of a motor vehicle. Vehicles are crash tested and awarded a number of stars for their safety performance. Known as ANCAP (Australasian New Car Assessment Programme).

OEM - Original Equipment Manufacturer Manufacturer/supplier of components fitted to a new car at the time of manufacture.

PAS - Power Assisted Steering A system designed to reduce the effort required to steer the vehicle, particularly at low parking speeds. Can be hydraulic, electric or a combination of both.

PDC - Park Distance Control An audible warning device that alerts the driver when their car is getting close to other cars or objects when parking.

RPM - Revolutions Per Minute How fast the engine is turning i.e. how many times the crankshaft rotates in one minute.

RSC - Roll Stability Control Control system to prevent the vehicle from rolling over.

RVM - Rear Vehicle Monitoring System The Rear Vehicle Monitoring System (RVM) uses a rear bumper-mounted quasi-milliwave radar to measure the distance to cars approaching from behind or in neighboring lanes. It warns the driver by alarm and warning lamp if there is a danger of collision when changing lanes.

RWD - Rear Wheel Drive Engine power is delivered through the rear wheels. Less common today than FWD.

SAT-NAV Satellite Navigation System GPS technology interfaces with mapping software either built to provide spoken, turn by turn instructions to drivers. Also known as GPS (Global Positioning System).

SBS - Smart Brake Support Using a millimeter-wave radar (SBS) is capable of detecting vehicles and obstacles as far as 200 m ahead. When a risk of collision is detected, the system slows the car via a two-stage brake operation. SBS aims to help the driver avoid or reduce the severity of collisions, particularly when driving at mid- to high speeds (between 15 km/h and 145 km/h), by automatically applying the brake if there is a danger of collision.(Mazda)

SCBC - Smart City Brake Support (SCBS) helps the driver avoid frontal collisions while driving at the slow speeds common in urban areas or congested traffic. When driving at low speeds (approximately 4 – 30 km/h) a laser sensor mounted on the windshield senses the car in front. If the system detects a risk of collision, it prepares the brake system to be ready to deliver maximum stopping power when the driver brakes. If the driver does not take evasive action such as braking or steering, the system simultaneously applies the brakes and reduces engine output.(Mazda)

SIDI - Spark Ignition Direct Injection Very high pressure fuel injection directly into the engine combustion chamber. Enabling increased efficiency of engine operation.

SUV - Sport Utility Vehicle Mid size vehicle used for on or off road. Can be two or four wheel drive.

SWB - Short Wheel Base Front and rear axles are closer together therefore the body or cargo deck of a commercial vehicle will be shorter.

SRS - Supplementary Restraint System Designed to be used in conjunction with seatbelts, SRS refers to a vehicle's airbag system. Airbags are designed to reduce occupant injury in the event of a crash and are deployed when the SRS sensors detect a predetermined level of impact force.

TCS - Traction Control System Function of Electronic Stability Control (ESC) designed to prevent loss of traction of the driven road wheels. TCS control actuates torque reduction through electronic throttle control, fuel cut and ignition timing control, as well as using brake control to control traction.

TCT - Twin Clutch Transmission A semi-automatic transmission system with double dry clutch, consisting of two gearboxes in parallel that allow the next gear to engage while the previous one is still engaged.

TDI - Turbo Diesel Injection Most modern diesel engines are now fitted with turbochargers to maximise performance.

TFSI - Turbo Fuel Stratified Injection Volkswagen group (VW, Audi, Porsche) terminology for their combination of turbocharged, fuel stratified injection engines.

VDC - Vehicle Dynamic Control VDC (Vehicle Dynamic Control) is a system that intervenes in conditions approaching the limit, when vehicle stability is at risk, and assists the driver in controlling the car.

TSI - Turbocharged Supercharged Injection Volkswagen group terminology for their small capacity, petrol engines that optimise fuel economy and performance by incorporating both a turbo and a supercharger system. Also Known as Turbo Stratified Injection

VGT - Variable Geometry Turbo This system varies airflow angle across an engine's turbo blades providing optimum power delivery across a broader rev range. Now commonplace in modern diesel engines.

VIN - Vehicle Identification Number A unique 17 digit number, for each individual car, that can identify date of manufacture, manufacturing plant and standards etc.

VSA/ECS - Vehicle Stability Assist (or Electronic Stability Control) Designed to anticipate when the car is being driven either deliberately or inadvertently in such a way that a loss of front or rear tyre grip is about to occur. Function of Traction Control.

VTEC - Valve Timing Electronic Control A system developed by Honda to improve the volumetric efficiency of a four-stroke internal combustion engine. The VTEC system uses two camshaft profiles and hydraulically selects between profiles.

VVT - Variable Valve Timing VVT systems advance or retard camshaft timing to optimising engine efficiency, performance and exhaust emissions. Also known as, vvti, vvtl-i, vvt-ie, dual vvt.

ZEV - Zero Emission Vehicle Vehicle that emits zero exhaust emissions. Full electric vehicle.

4Motion VW four wheel drive Volkswagen terminology for some of their four wheel drive models