
MITSUBISHI
MOTORS
LANCER EVOLUTION

Mitsubishi Lancer Evolution

Leader of the Lancer family

Leader in technology

MITSUBISHI MOTORS

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Mitsubishi Lancer Evolution

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4B11 TC/IC engine

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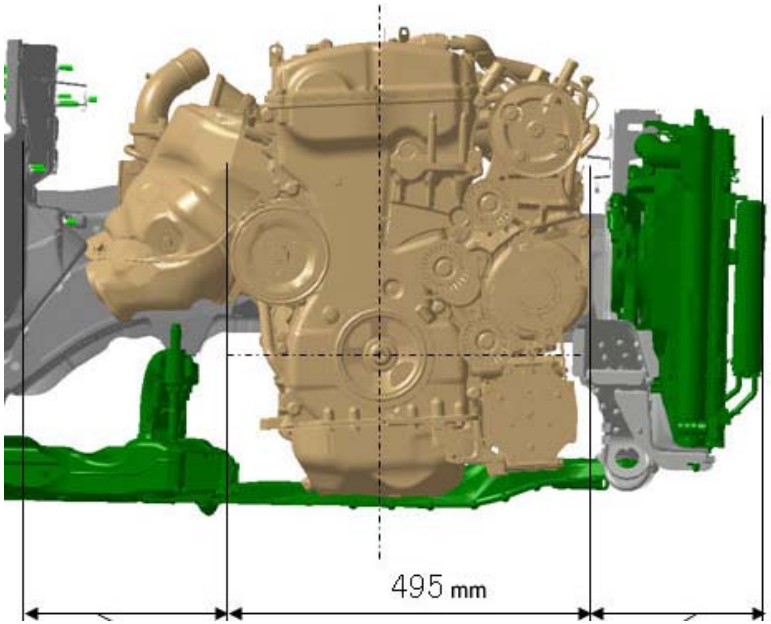
Engine

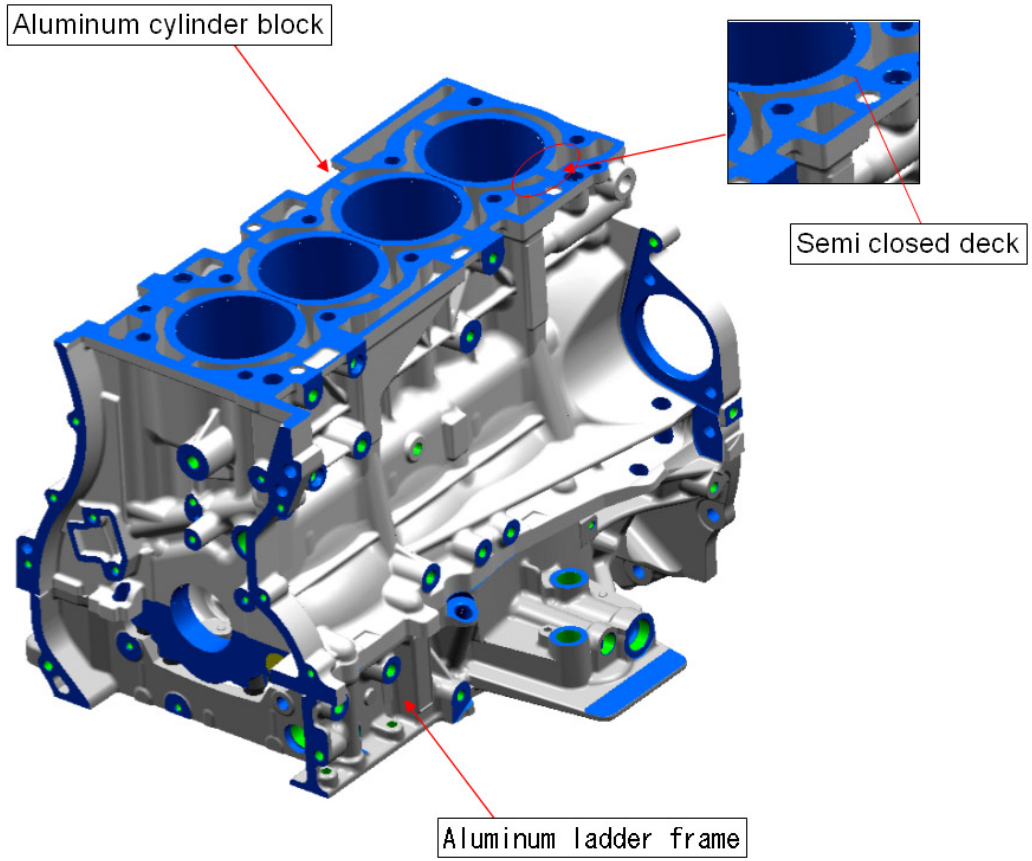
- Strongest engine from 4B1

  “World Engine” family

- Front side intake manifold rear side exhaust manifold

- Full aluminum reinforced cylinder block, Cast iron cylinder liners





4B11 TC/IC engine

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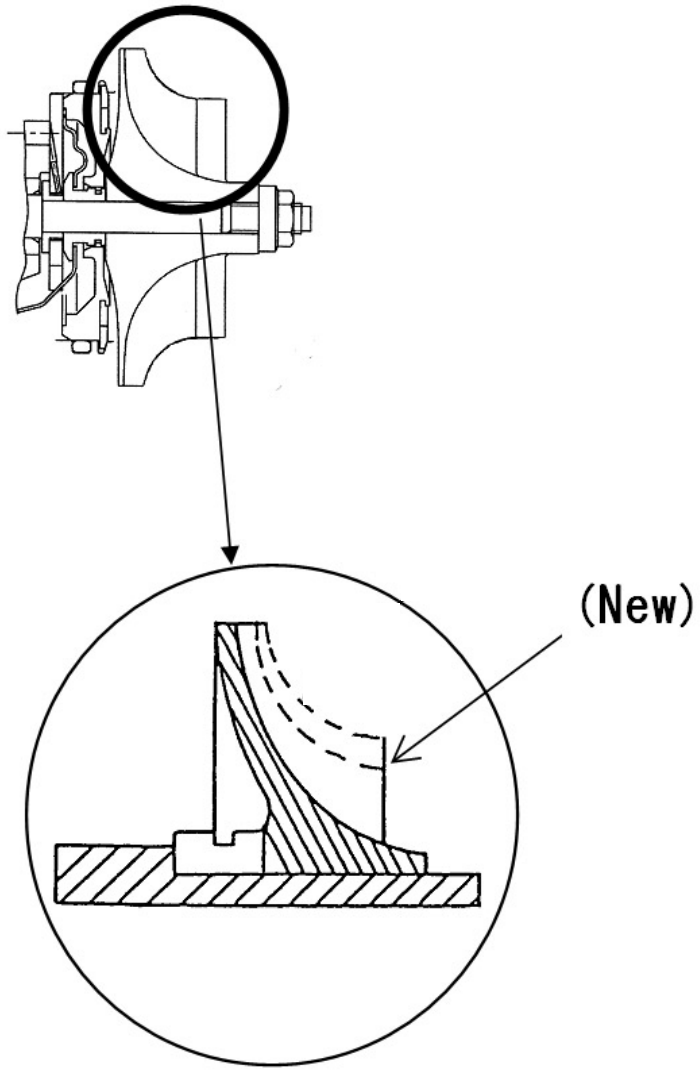
Engine

- Twin scroll turbo charger with INCONEL turbine wheel
- Increased turbine nozzle surface area to improve engine performance
- Optimized compressor wheel shape



4B11 TC/IC engine

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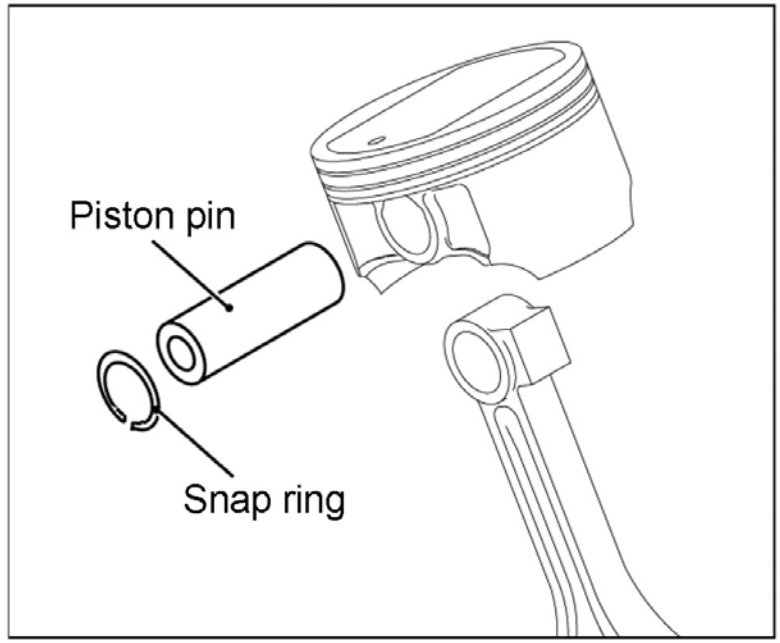
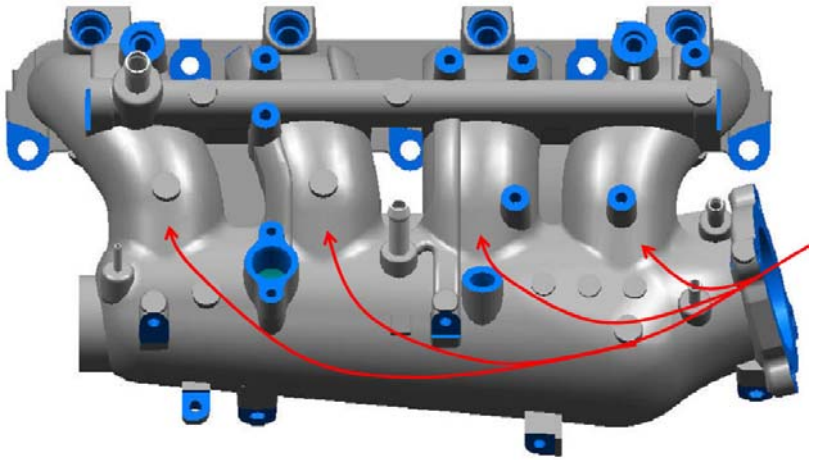
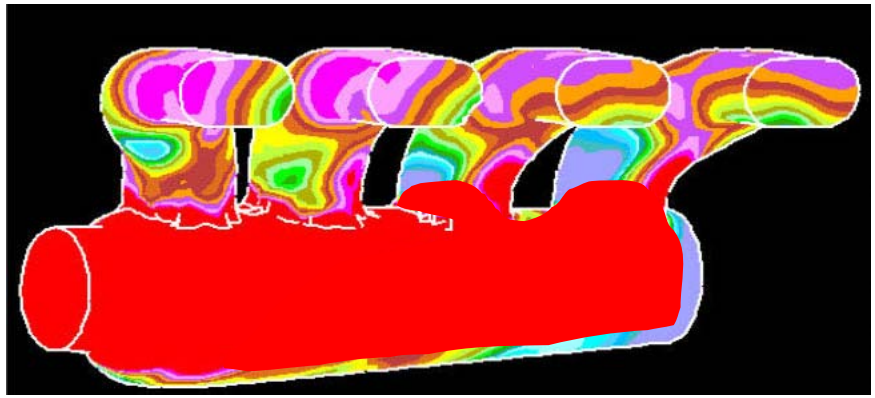
Engine

- Full floating type piston pin to reduce friction
- Pistons produced by Mahle
- Specially shaped aluminum intake manifold to improve airflow and distribution







4B11 TC/IC engine

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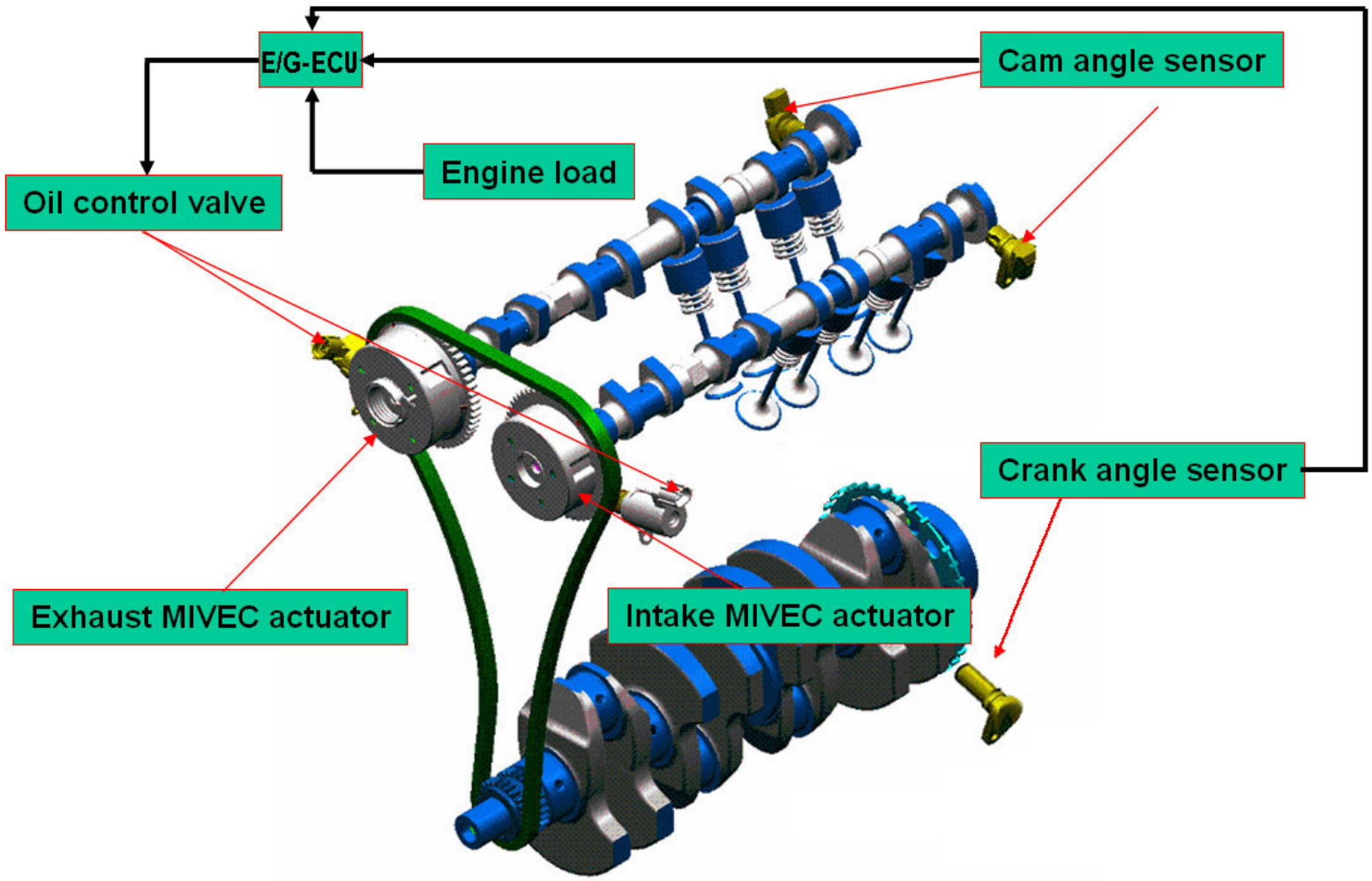
Mitsubishi Innovative Valve timing Electronic Control



4B11 TC/IC engine

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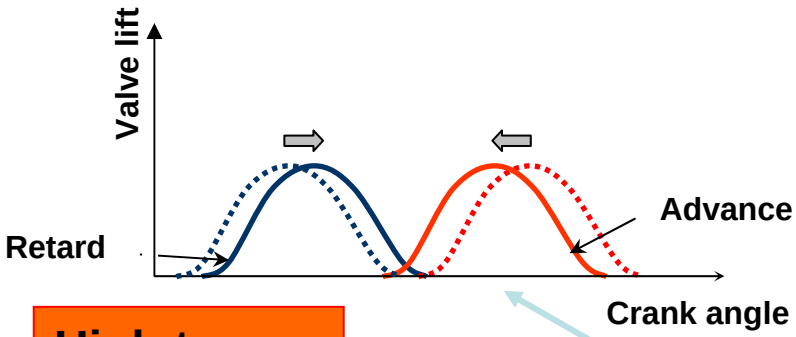
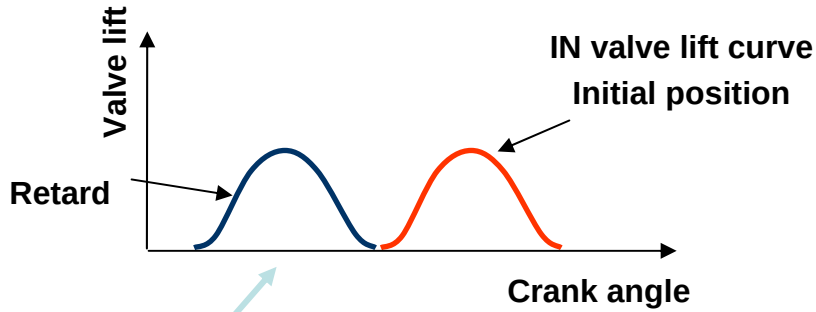


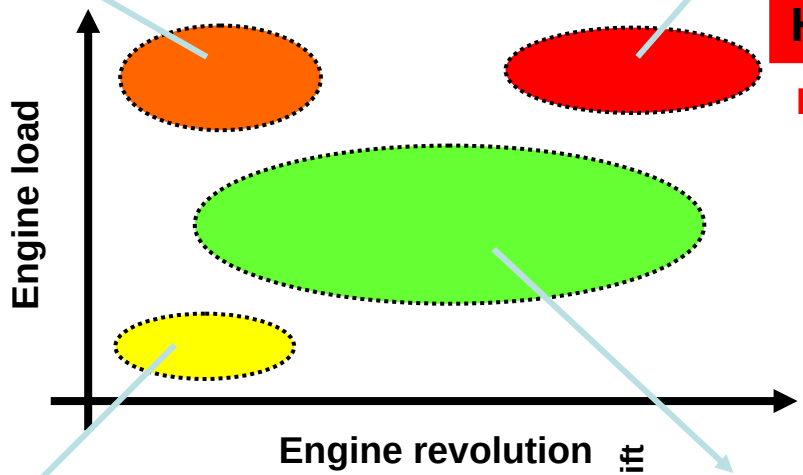
High torque

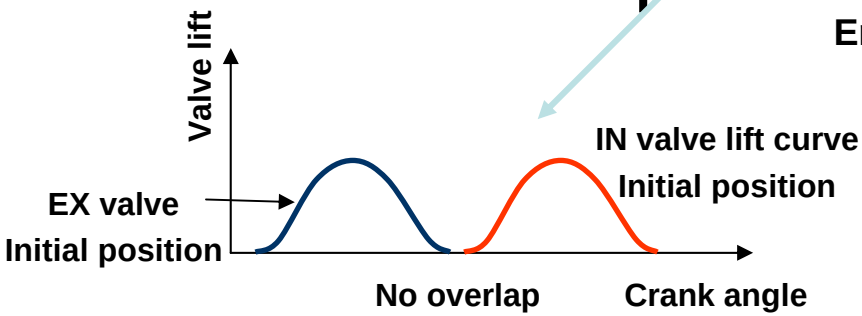
Improve combustion



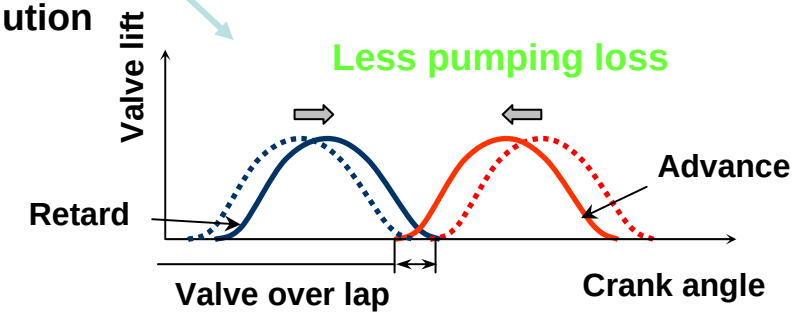
High power

Improve air induction





High fuel economy



High fuel economy

Twin Clutch-Sport Shift Transmission

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TC-SST

- 6 Speed automated manual transmission
- Fun and easy to drive
- Mode switch for NORMAL, SPORT and S-SPORT
- Auto mode
- Manual mode via manual shift gate and magnesium shift paddles

Twin Clutch-Sport Shift Transmission

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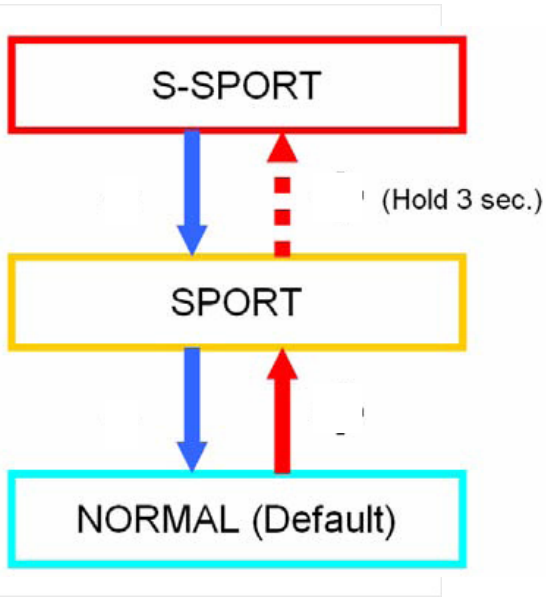
TC-SST

- 4 Position lever with manual shift gate
- Paddle shift
- Mode switch



Twin Clutch-Sport Shift Transmission

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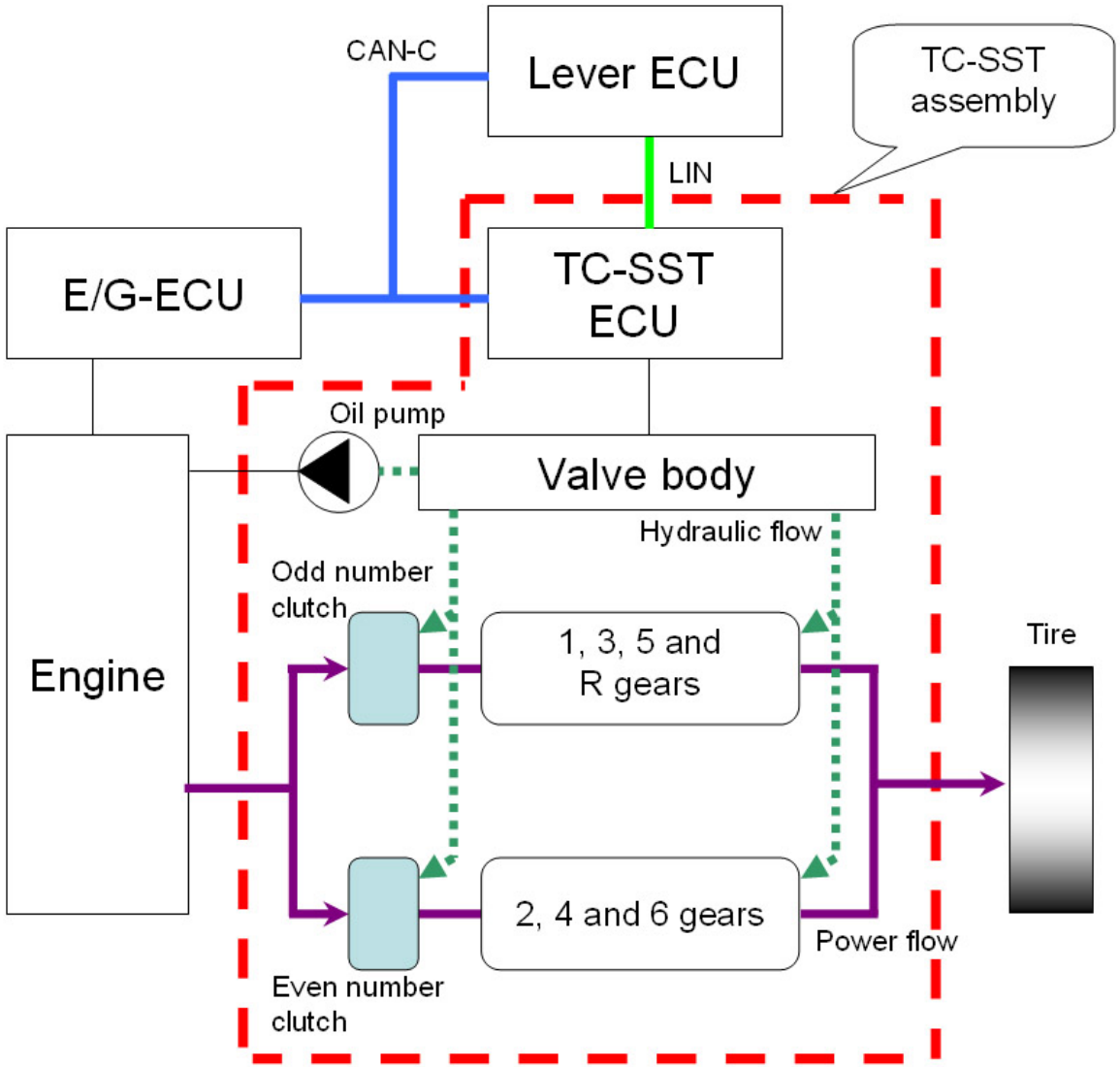
TC-SST

- TC-SST ECU , all sensors and actuators integrated in transmission housing
- Lever ECU communicates via CAN bus and uses LIN bus as backup
- The Hydraulic valve body controls the shifting of gears and clutches



Twin Clutch-Sport Shift Transmission

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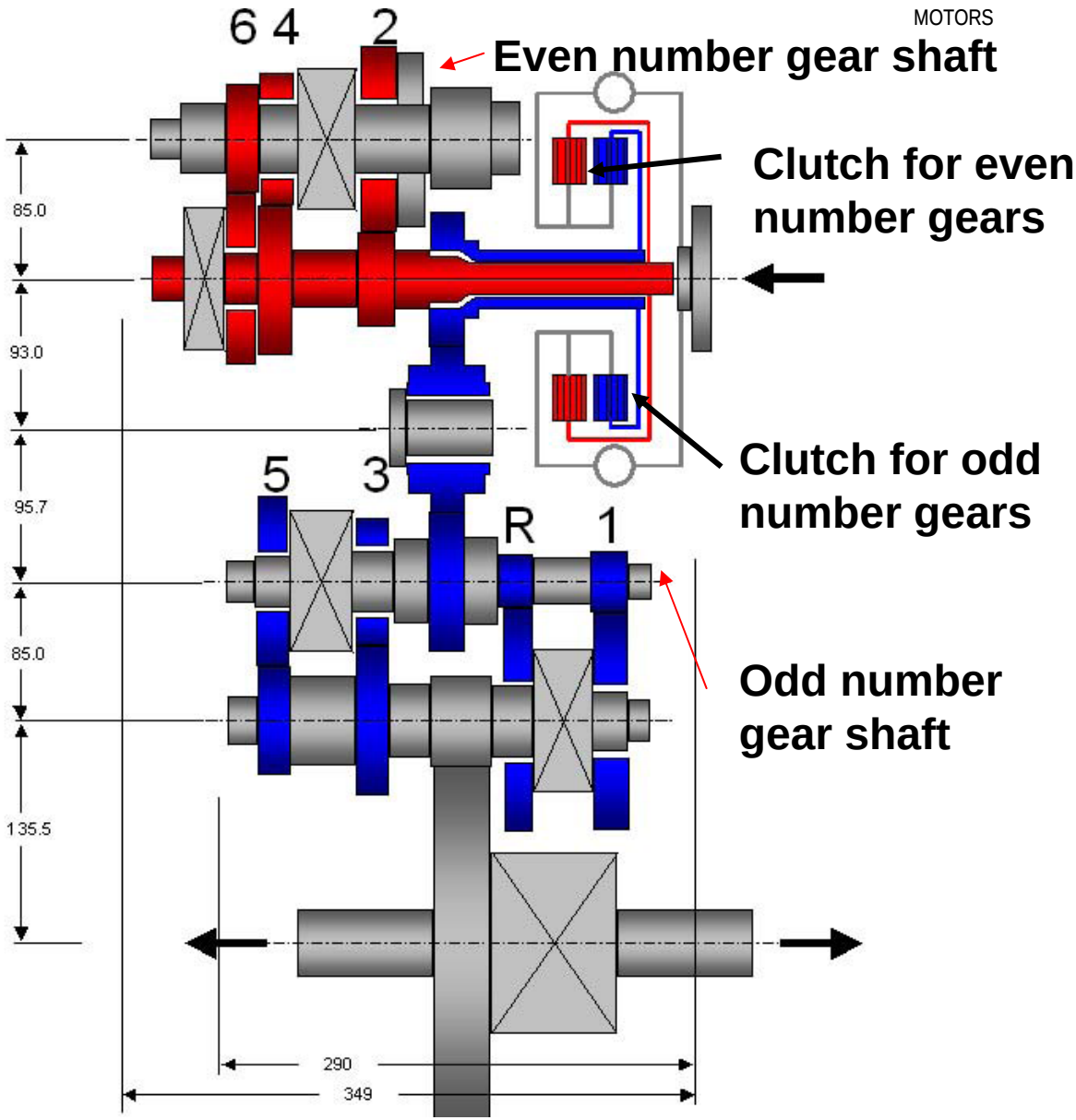
TC-SST

- In P and N range 1st and 2nd gear are pre-selected, both clutches have the free status
- During driving the suitable gear is pre-selected
- When the ign. is turned off the engine will run for 2 more seconds to disengage 1st and 2nd pre-selected gear



Twin Clutch-Sport Shift Transmission

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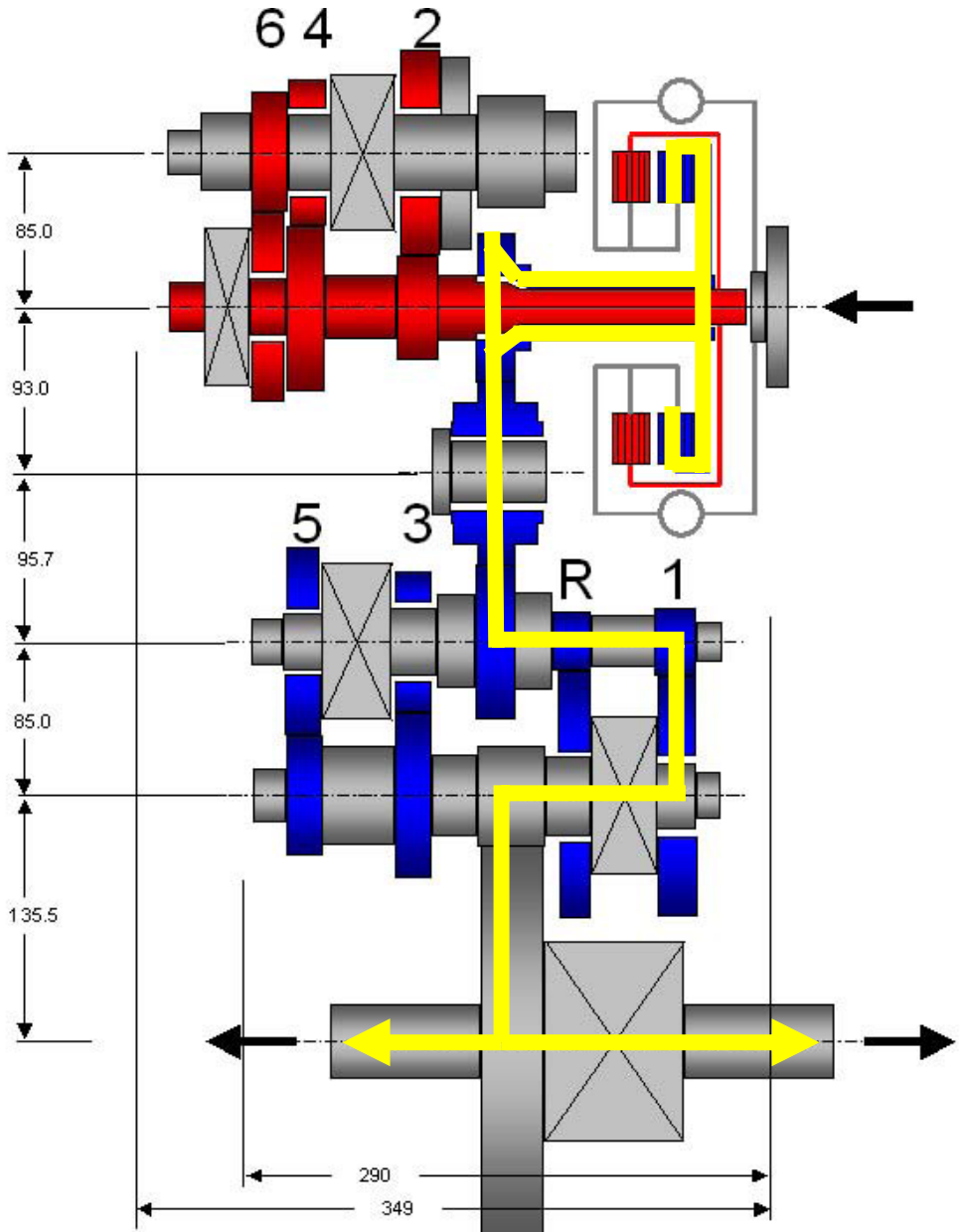
TC-SST

- Power flow in first gear



Twin Clutch-Sport Shift Transmission

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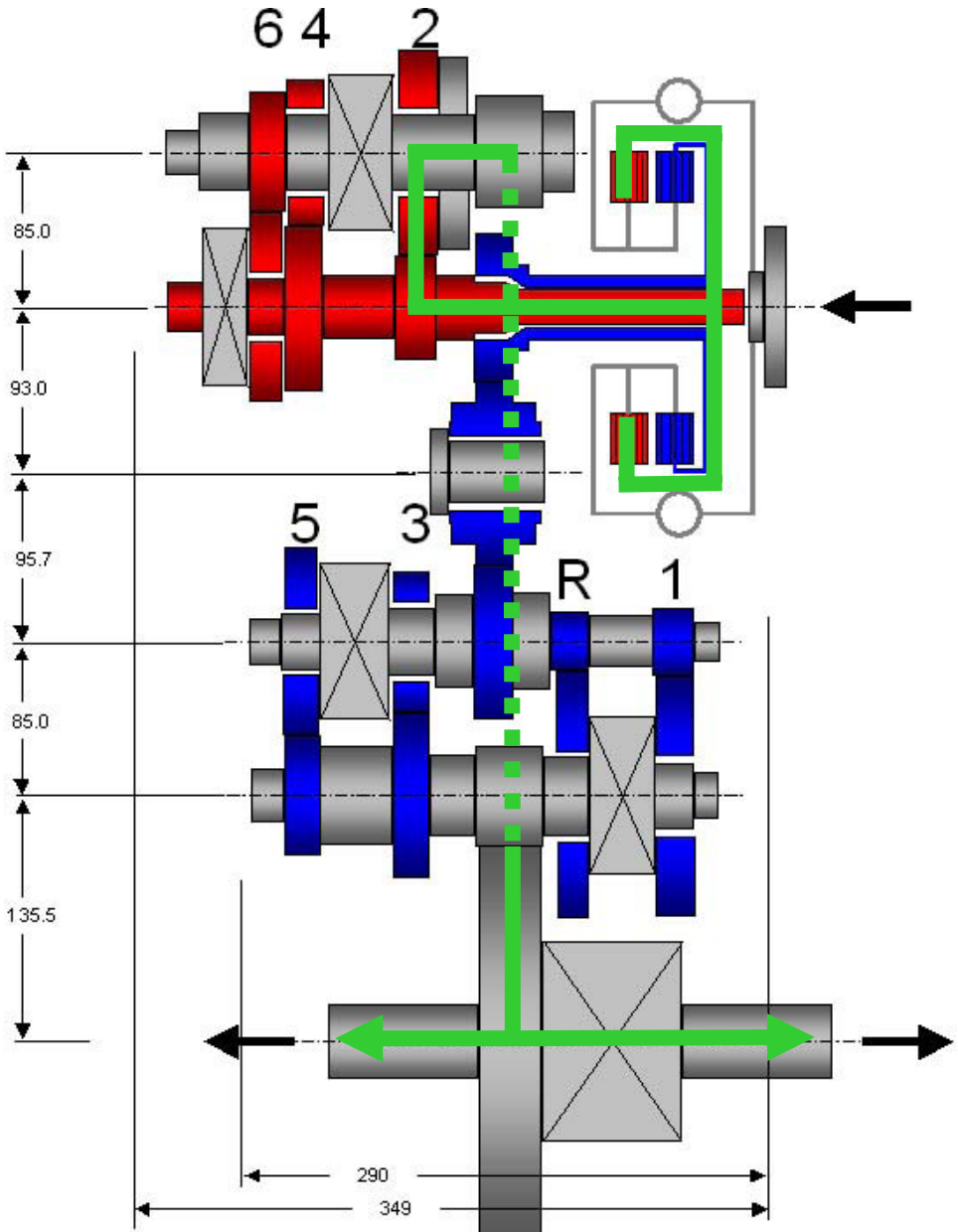
TC-SST

- Power flow in second gear



Twin Clutch-Sport Shift Transmission

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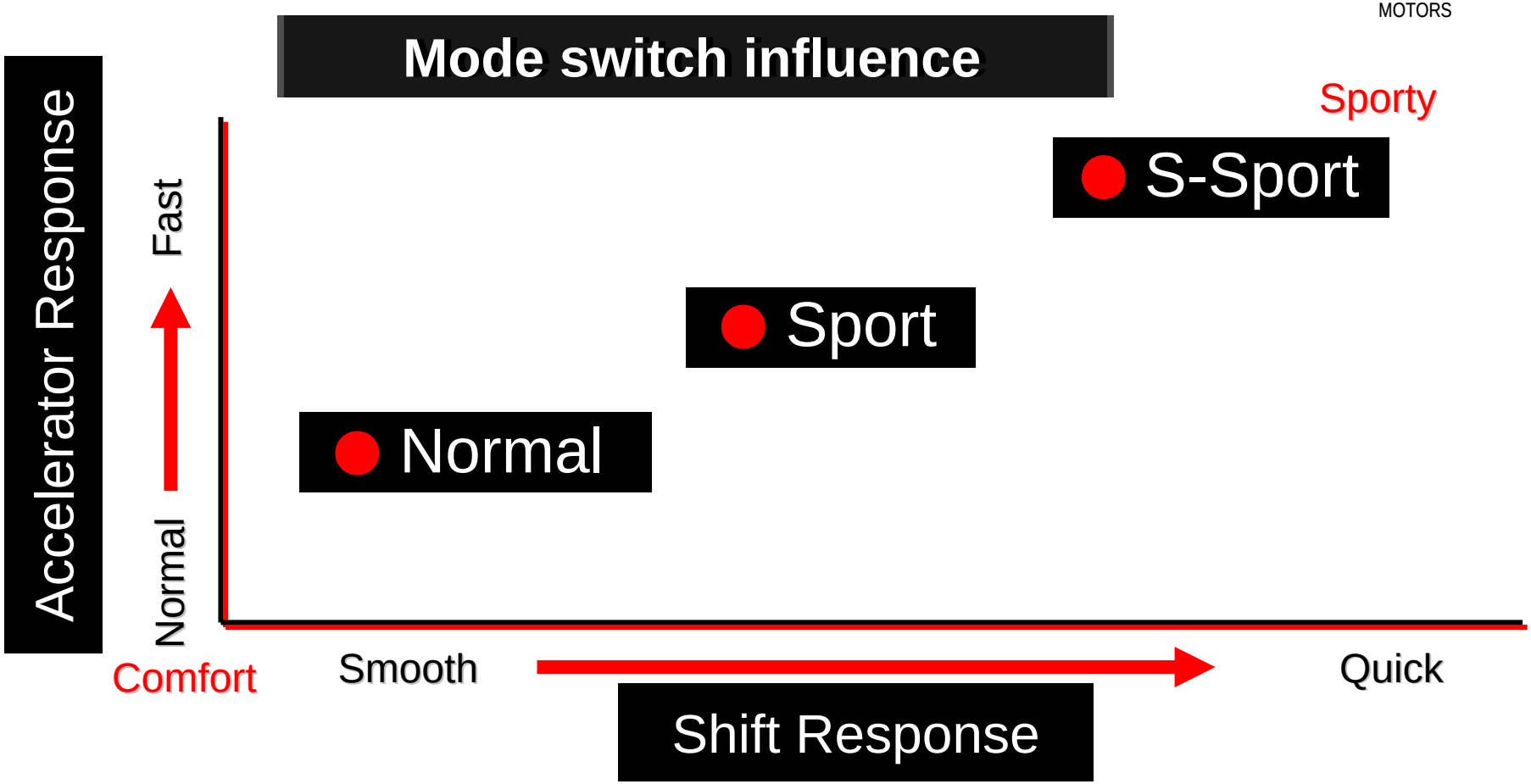

Engine RPM Tendency	Low (Normal)	2500-7000rpm	4500-7000rpm

5 Speed Manual Transmission

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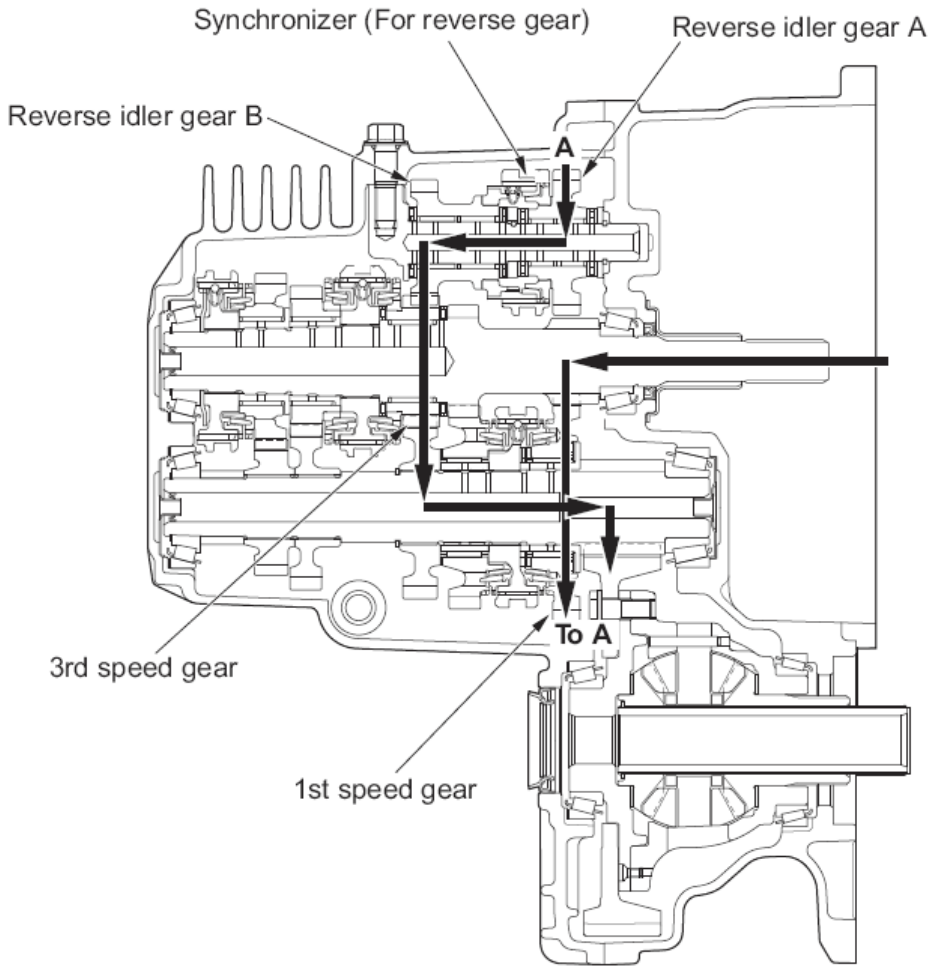
W5M6A 5-MT

- Torque capacity increased by increased gear width
- Reverse gear is eliminated to reduce case size
- 1st and 3rd are used to create reverse gear



Super-All Wheel Control (S-AWC)

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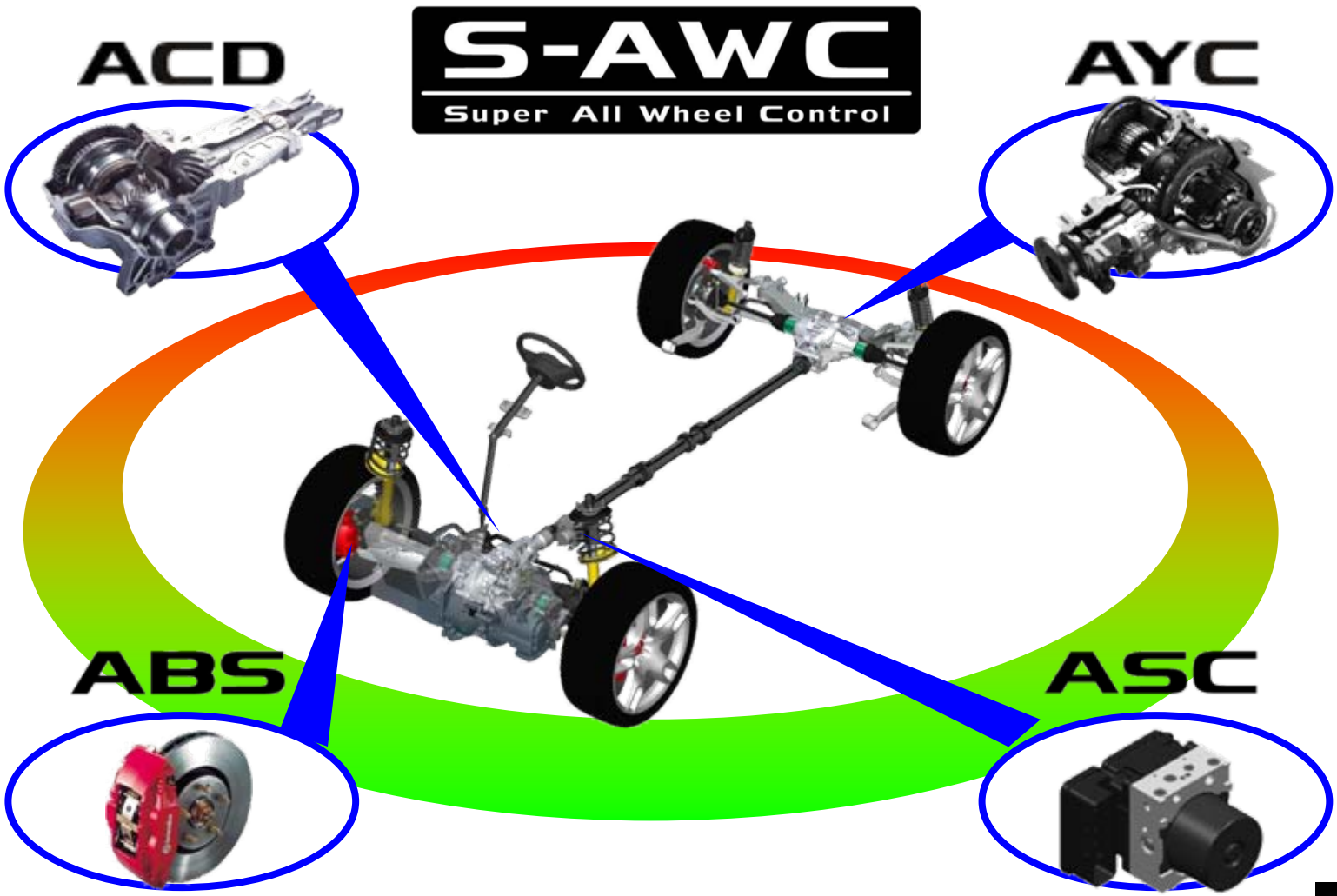

Super-All Wheel Control (S-AWC)

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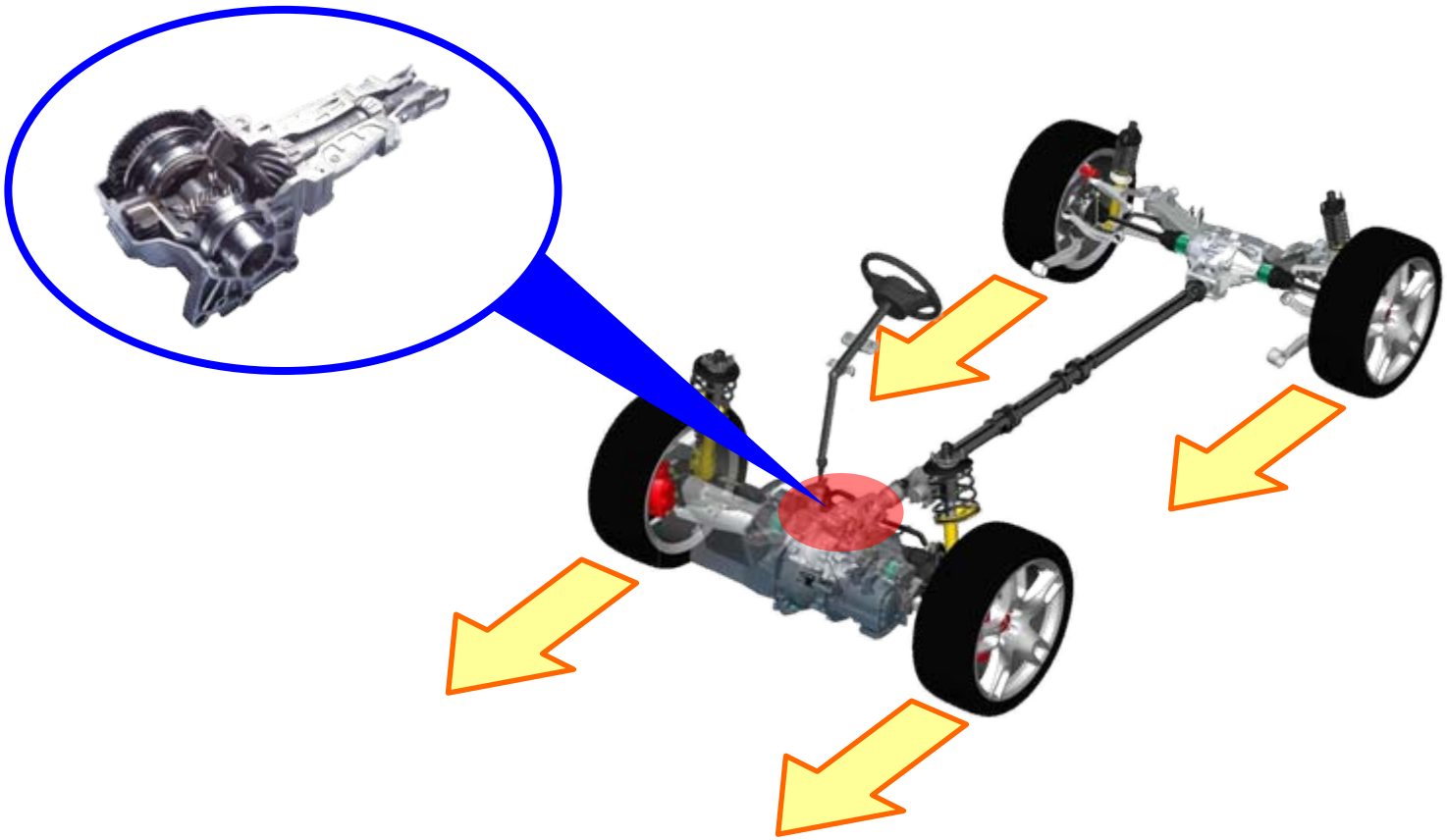
ACD

Active Center Differential

ACD improves Steering Response and Traction Performance by Controlling the Speed Difference between the Front and Rear axle



Super-All Wheel Control (S-AWC)

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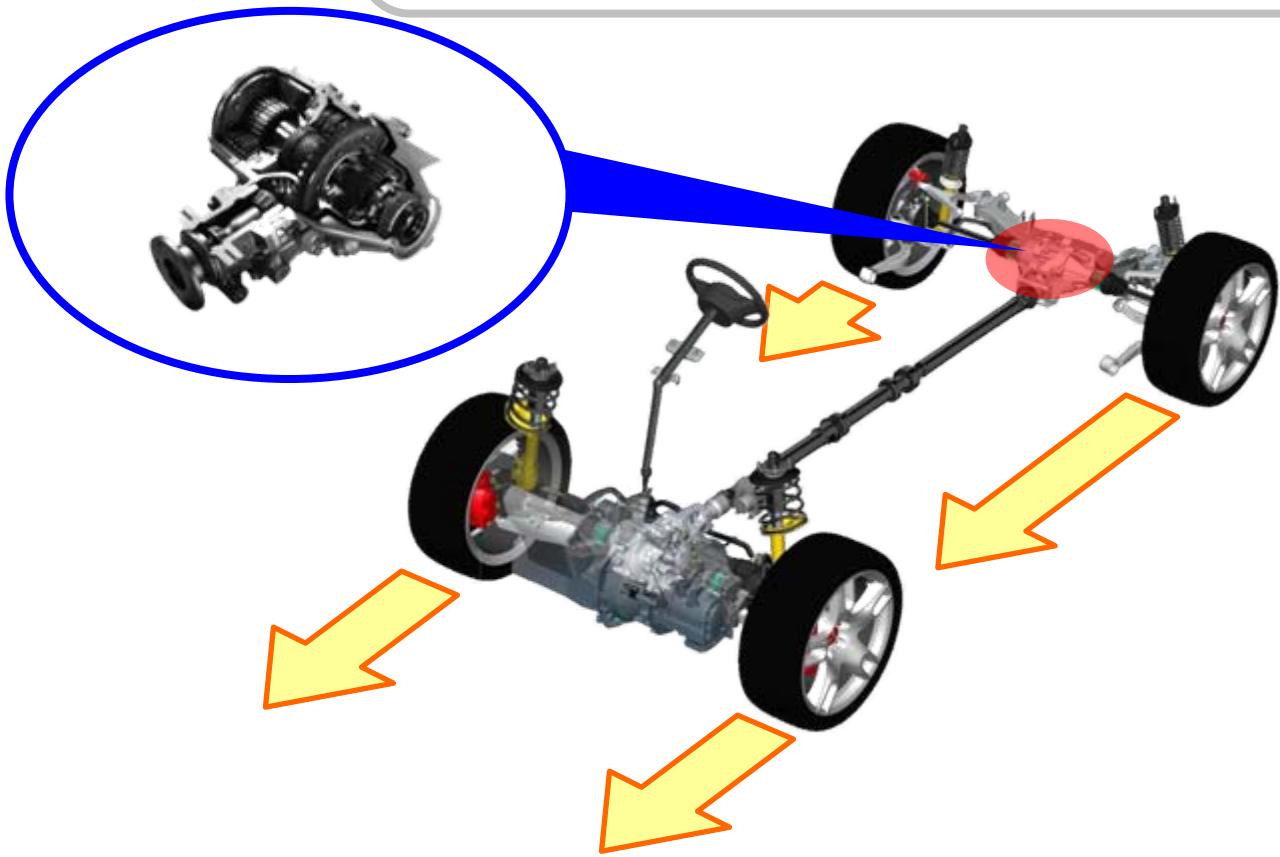
AYC

Active Yaw Control

AYC improves Cornering and Traction Performance by Controlling the Torque Difference between the Rear Wheels

AYC brake control is added



Super-All Wheel Control (S-AWC)

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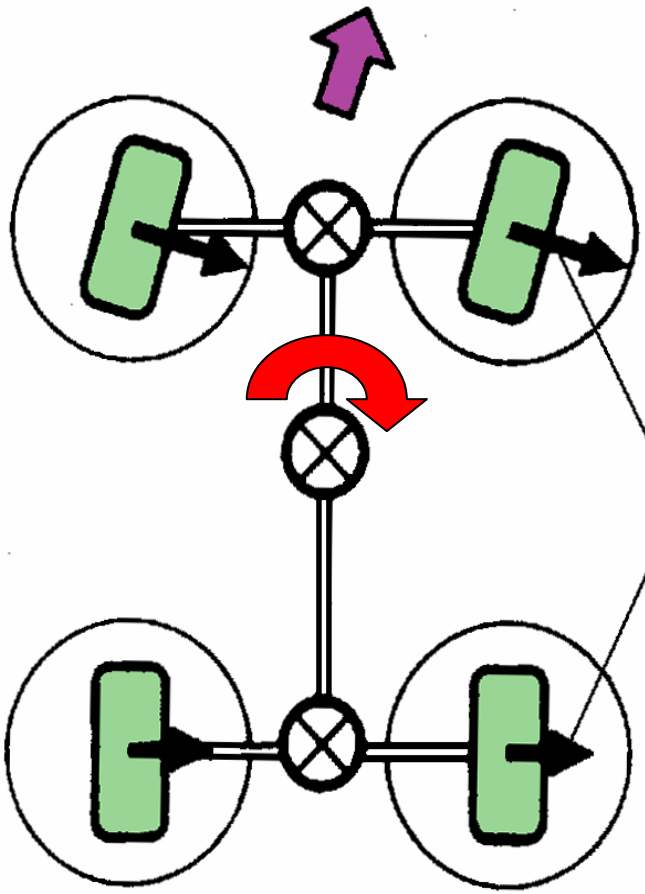
Direction of motion



Cornering force

A Yaw Moment is the turning force placed on a vehicle when cornering. By controlling the Yaw moment, the cornering is improved

Super-All Wheel Control (S-AWC)

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ASC

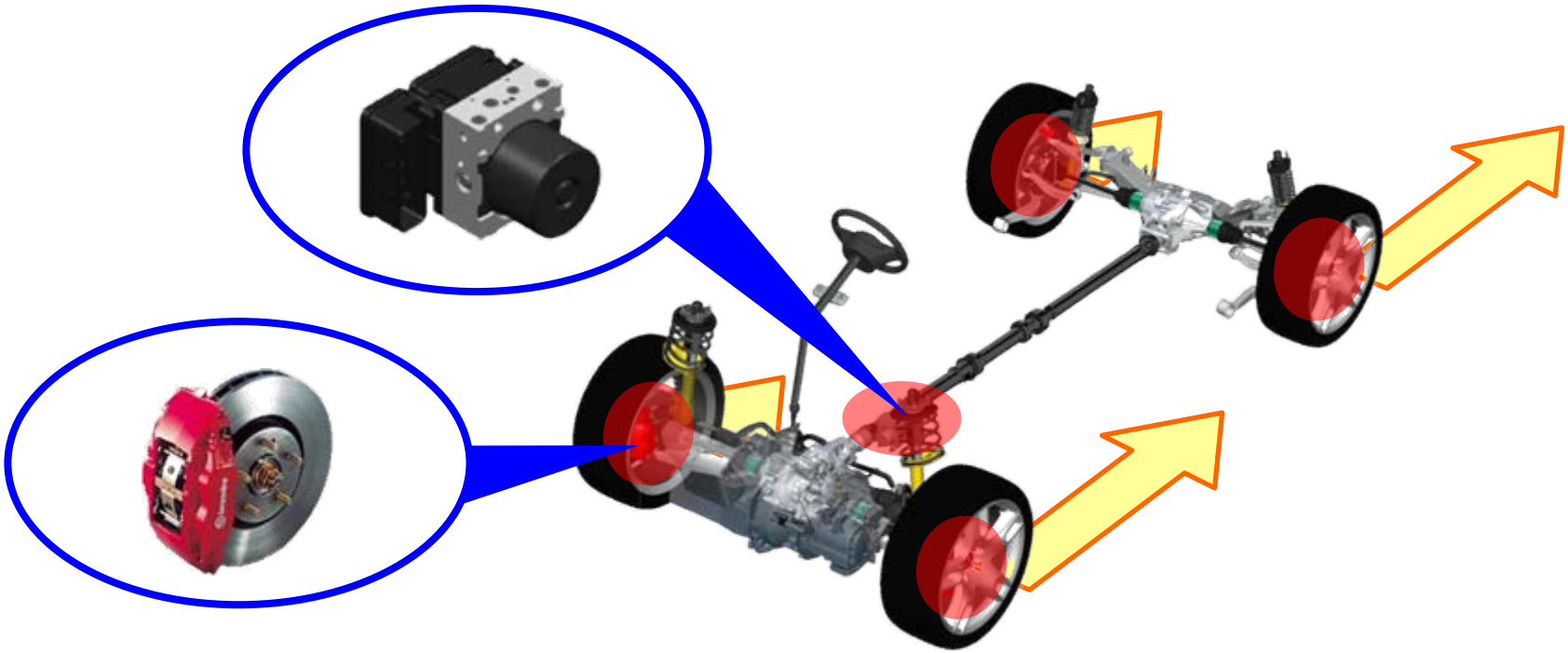
Active Stability Control

Improves Vehicle Stability by Controlling the Engine Torque and the Brake Forces at each wheel. 5 brake pressure sensors are used

ABS

Antilock Brake System

Sport ABS uses the steering angle sensor as input signal



Super-All Wheel Control (S-AWC)

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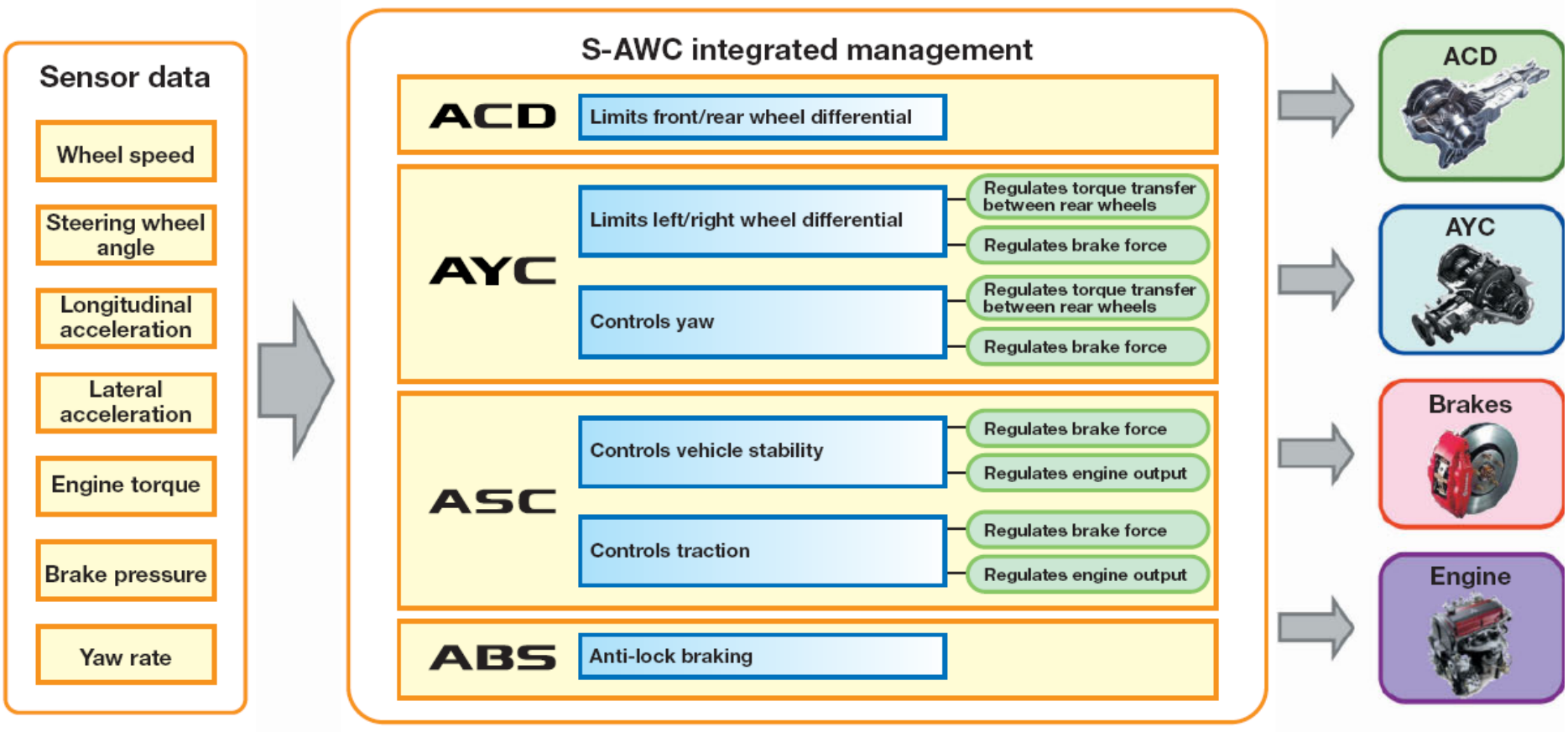

Super-All Wheel Control (S-AWC)

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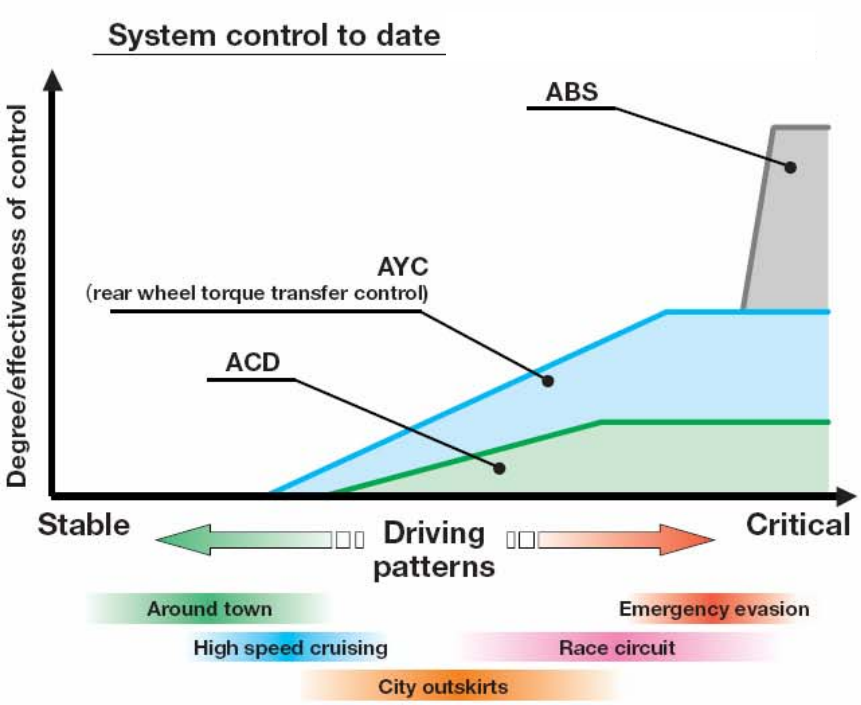
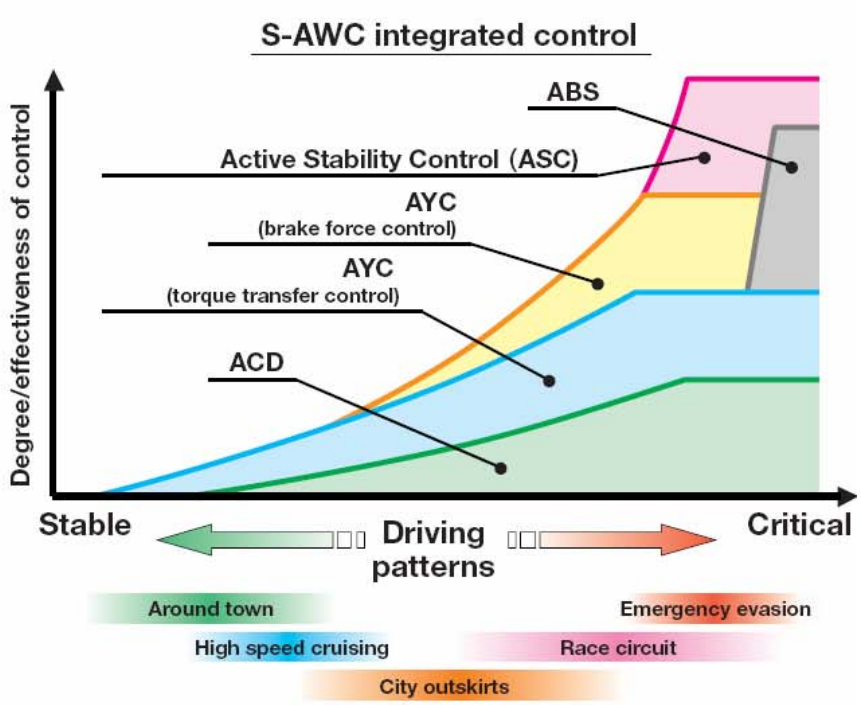
S-AWC area





Super-All Wheel Control (S-AWC)

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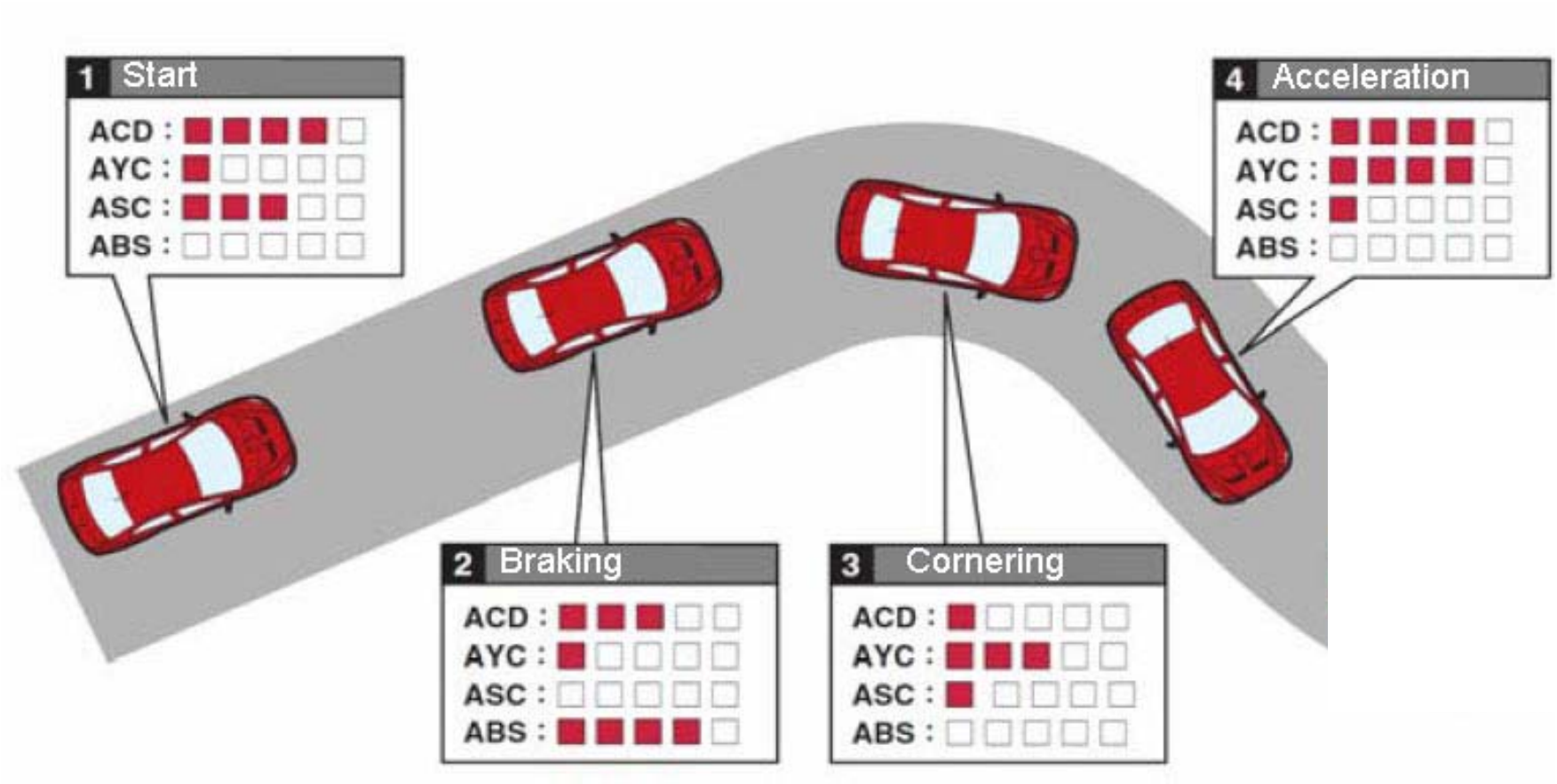
S-AWC on the road



Super-All Wheel Control (S-AWC)

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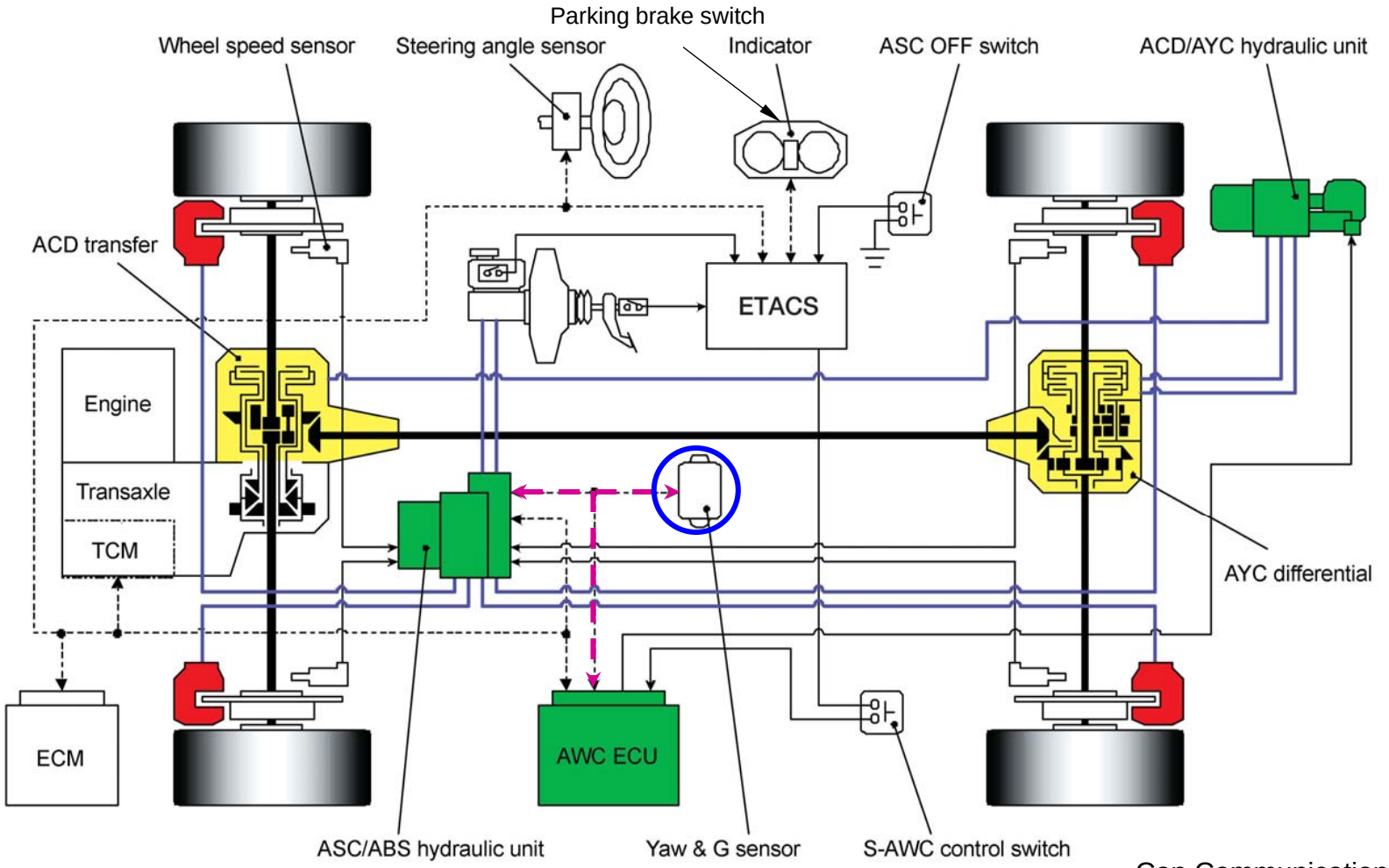

Super-All Wheel Control (S-AWC)

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S-AWC mode switch

- The S-AWC mode switch adapts the control to each road condition

S-AWC Mode	S-AWC Control
TARMAC	Suitable for driving on dry paved roads mainly. Delivers best cornering performance
GRAVEL	Suitable for driving on gravel and wet or sandy roads.
SNOW	Suitable for drive on snow covered roads mainly. Delivers best vehicle stability.

Super-All Wheel Control (S-AWC)

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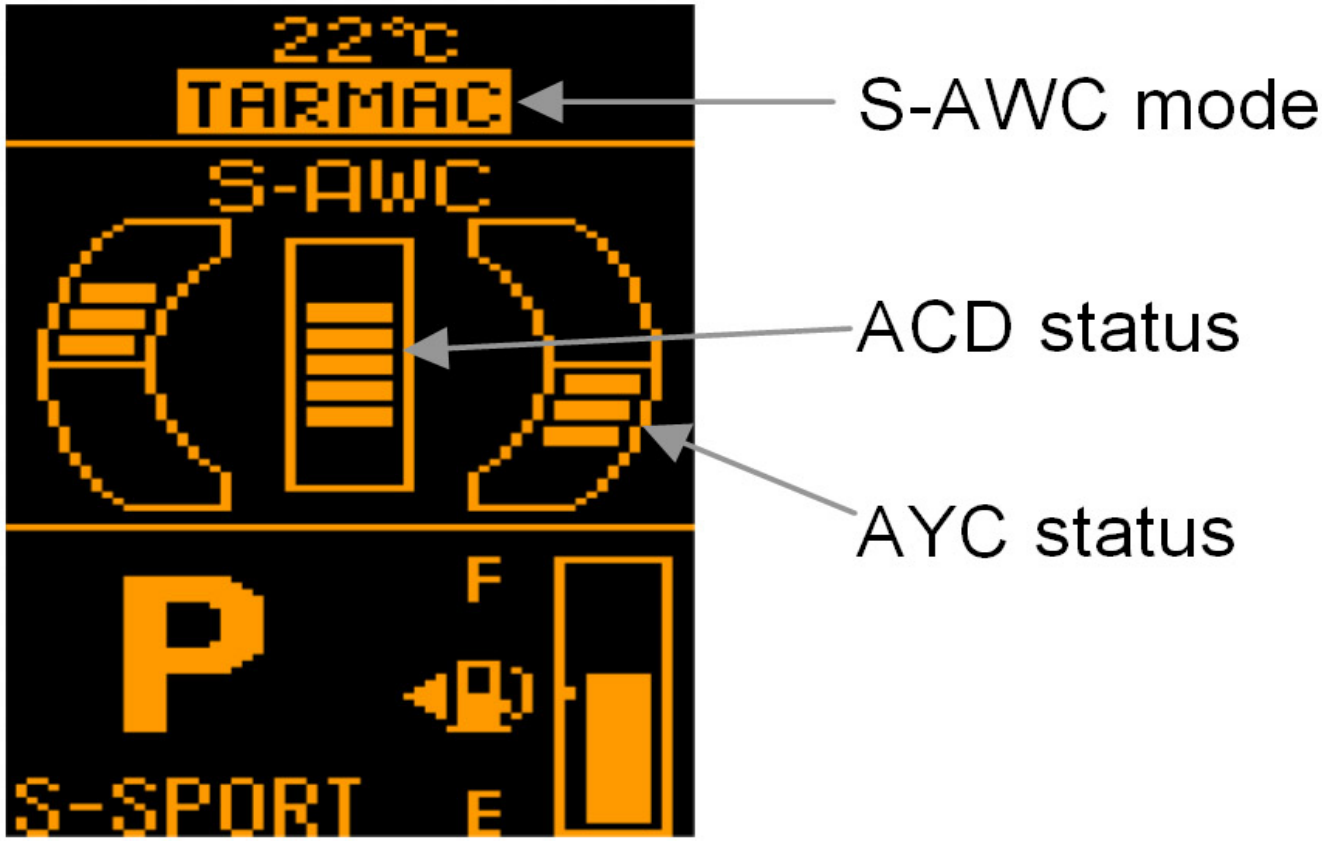
Multi Information display

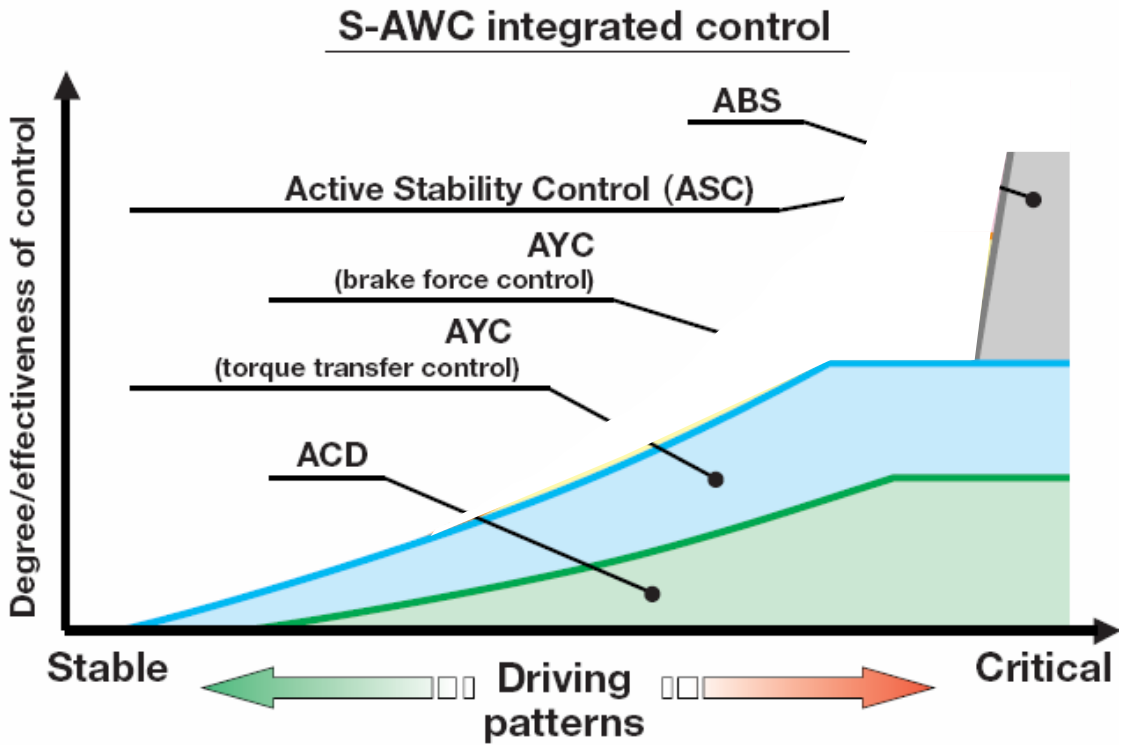
- Indicates the selected S-AWC mode (TARMAC, GRAVEL, SNOW)
- Shows the AYC and ACD control status in bar graph



Super-All Wheel Control (S-AWC)

ASC OFF switch

- If ASC is on the vehicle stability is controlled by ASC
- When ASC is off, traction and vehicle stability is not longer controlled by ASC, AYC brake control still supports cornering performance
- When ASC button is pressed for 3 seconds ASC and AYC brake control are off. AYC torque transfer and ACD still support



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Thank you for your attention!

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