VF Commodore National Media Launch
May 2013

PRODUCT INFORMATION

OVERVIEW

The 2013 VF model line-up heralds the biggest update to Holden's enduring Commodore sedan, Sportwagon, Ute and Caprice range since VE and WM were introduced in 2006.

Holden has redefined Australia's favourite home-grown family car with cutting-edge technology across all models, new levels of luxury and refinement, fresh exterior styling and completely revised interior design. Every model in the VF Commodore and WN Caprice range benefits from improved fuel economy thanks to a combination of significant mass reduction, multiple aerodynamic enhancements, updated powertrain calibrations and new electric power steering system.

Holden's entry level Evoke sedan with frugal 3.0 litre SIDI V6 now achieves fuel economy of 8.3 litres per 100 kilometres, a 6.7 per cent improvement over the model it replaces. But perhaps the most significant fuel economy improvements are reserved for models powered by Holden's 3.6 litre SIDI V6, which are now up to 8.2 per cent more efficient. Meanwhile, all VF luxury and performance models powered by Holden's Gen IV V8 now achieve fuel economy under 12.0 litres per 100 km in the official ADR81/02 test.

Commodore is also safer than ever before. Every safety metric across the VF range has been analysed and upgraded. Already boasting world-class safety credentials, VF focuses on further progressing occupant protection, particularly in the areas of child passenger safety and side impact performance, and the introduction of pedestrian protection measures.

Also forming part of Commodore's innovative safety package are advanced technology features such as Auto Park Assist, Lane Departure Warning, Forward Collision Alert, Blind Spot Alert, Reverse Traffic Alert and colour Head-up Display. A reverse camera and front and rear parking sensors are standard on every single VF model – even VF Ute.

New Global A electrical architecture also enables a world of new technology features making Commodore the most technically advanced vehicle ever designed, built and engineered in Australia. VF introduces the innovative MyLink entertainment system on every model, complete with eight-inch colour touch screen, embedded technology including voice recognition and Siri Eyes Free integration*, full iPod integration with Gracenote® technology and built-in apps like Pandora® and Stitcher SmartRadio™.

Commodore's ground-breaking technology extends to other technical innovations that enhance the way Commodore drives, such as electric park brake, Hill Start Assist, Hill Hold and Trailer Sway Control. Backed up with a lighter, more agile chassis for confident and predictable handling, VF elevates Commodore's traditional fun-to-drive characteristics to sophisticated new levels.

Cutting edge technology is applied to the way Commodore is constructed, with Holden and local suppliers pioneering sophisticated new hot metal stamping techniques and GM's first mainstream application of aluminium body panels, representing a genuine first for the Australia automotive

manufacturing industry. Commodore's new aluminium bonnet, boot lid, suspension components and instrument panel beam contribute to impressive mass reductions and underpin VF overall quality and refinement.

VF Commodore and WN Model Line-up and Feature Highlights

Sedan and Sportwagon

Evoke highlights:

- 3.0L SIDI V6 engine
- 6 airbags
- ECS, ABS & TCS
- 16" alloy wheels (4)
- Dual-zone climate control
- Electric Power Steering (EPS)
- Auto Park Assist
- Rear view camera
- Front and Rear Park Assist
- Automatic release electric park brake
- Hill Hold Control and Hill Start Assist
- Trailer Sway Control
- ISOFIX child seat anchorage system
- Projector headlamps (halogen)
- Remote vehicle start (automatic transmission only)
- Enhanced multi-function display (one colour) with:
  - Vehicle information menu
  - Trip information menu
  - Fuel economy menu
  - Warning/messages
- Holden MyLink Infotainment System with 8" high-resolution colour touch-screen display
- Embedded Apps including Pandora® and Stitcher SmartRadio™
- Single CD player with MP3 capability
- Full iPod® intergration including Siri Eyes Free***** and touch screen access for playlists, artist, albums, songs and genres
- Enhanced voice recognition: phone calls, radio, navigation, smartphone/iPod®/MP3 or USB audio control
- Bluetooth® audio streaming and auxiliary input jack

SV6 and SS highlights over Evoke:

- 3.6L SIDI V6 engine (SV6) and 6.0-litre Gen IV V8 engine (SS)
- Front & rear sports fascia
- 18" alloy wheels (4)
- LED daylight running lamps
- Sportec/cloth sports seats
- Lip spoiler (sedan only)
- Blind Spot Alert (option on Evoke)
- Reverse Traffic Alert (option on Evoke)
- Sports styling: front and rear sports fascia, side skirts
- Chrome exhaust tip

SS V highlights over SS:

- 6.0-litre Gen IV V8 engine
- Leather appointed seats
- 19” alloy wheels
- Sensor key technology with push button start
- Front fog lamps
- Colour digital instrument display: vehicle information menu, trip information menu, fuel economy menu, warning/messages
- Satellite Navigation with full colour mapping with live traffic updates, traffic management control and points of interest
- Footwell lamps
- Eight speaker stereo system with rear subwoofers
- DVD (playable when stationary)

SS V Redline highlights over SS V:

- Brembo® brakes
- Forged 19” alloy wheels (4)
- Ultra High Performance 245/40 R19 (front) and 275/35 R19 (rear) tyres
- Colour Head-up Display
- Forward Collision Alert
- Lane Departure Warning
- Updated FE3 sports tuned suspension
- 9-speaker Bose® premium audio (sedan only) (option package on SS V with sunroof)
- Sunroof (sedan only)

Calais highlights over Evoke:

- 3.6L V6 SIDI engine
- Leather appointed seats
- 18” alloy wheels (4)
- Chrome highlights
- Sensor key technology with push button start
- Colour digital instrument display
- LED daylight running lamps
- Blind Spot Alert (option on Evoke)
- Reverse Traffic Alert (option on Evoke)
- Premium styling: front and rear premium fascia, chrome side door accent

Calais V highlights over Calais:

- 6.0L Gen IV V8 engine (option)
- 8-way power driver seat
- 19” alloy wheels (4)
- Lane Departure Warning
- Forward Collision Alert
- Colour Head-up Display
- 9-speaker Bose® premium audio (sedan only)
- Satellite navigation with full colour mapping with live traffic updates, traffic management control and points of interest (option on Calais)
- Rain sensing wipers
- Heated front seats
- Sunroof (sedan only)
- DVD (playable stationary)

Ute

3.6L Ute highlights:

- 3.6L SIDI V6 engine
- 6 airbags (dual front driver and passenger, side impact thorax/pelvis and curtain airbags)
- ECS, ABS & TCS
- Dual-zone climate control
- Electric Power Steering (EPS)
- Auto Park Assist
- Rear view camera
- Front and Rear Park Assist
- Automatic release electric park brake
- Hill Start Assist
- Trailer Sway Control
- Remote vehicle start (automatic models only)
- Enhanced multi-function display (monochrome) with:
  - Vehicle information menu
  - Trip information menu
  - Fuel economy menu
  - Warning/messages
- Holden MyLink Infotainment System with 8" high-resolution colour touch-screen display
- Embedded Apps including Pandora® and Stitcher SmartRadio™
- Single CD player with MP3 capability
- Full iPod® integration including Siri Eyes Free***** and touch screen access for playlists, artist, albums, songs and genres
- Enhanced voice recognition: phone calls, radio, navigation, smartphone/iPod®/MP3 or USB audio control
- Bluetooth® audio streaming and auxiliary input jack

SV6 and SS Ute highlights over Ute:

- 3.6L SIDI V6 engine (SV6) and 6.0-litre Gen IV V8 engine and dual exhaust (SS)
- Front & rear sports fascia
- 18 inch alloy wheels (4)
- Projector headlamps and LED daylight running lamps
- Sportec/cloth sports seats
- Blind Spot Alert (option on Ute)
- Reverse Traffic Alert (option on Ute)
- Chrome exhaust tip
- Soft tonneau cover

SS V Series Ute highlights over SS:

- 6.0-litre Gen IV V8 engine standard
- Leather appointed seats
- 19 inch alloy wheels (4)
- Sensor key technology with push button start
- Front fog lamps
- Colour digital instrument display: vehicle information menu, trip information menu, fuel economy menu, warning/messages
- Satellite Navigation with full colour mapping with live traffic updates, traffic management control and points of interest
- Footwell lamps
- DVD playback (playable when stationary)

SS V Redline highlights over SS V:

- Brembo® brakes
- Forged 19 inch alloy wheels (4)
- Ultra High Performance 245/40 R19 (front) and 275/35 R19 (rear) tyres
-
- Colour Head-up Display
- Forward Collision Alert
- Lane Departure Warning
- Updated FE3 ultra sports tuned suspension

Caprice

Caprice highlights:

- Sensor key technology with passive entry and push button start
- Satellite navigation with full colour mapping and live traffic updates
- An eight-inch, high-resolution colour touch screen with Holden's MyLink app-embedded technology including enhanced voice recognition and Siri Eyes Free integration*
- Full iPod® integration and Pandora® and Stitcher SmartRadio™ built-in apps
- Auto Park Assist for parallel and right angle parking
- Reverse Traffic Alert
- Blind Spot Alert
- Front and rear parking sensors and a rear view camera
- Electric park brake with automatic release
- Hill Hold Control
- Hill Start Assist
- Trailer Sway Control
- Remote vehicle start

Caprice V highlights over Caprice:

- Forward Collision Alert
- Lane Departure Warning
- Colour Head-Up Display
- Deluxe leather front and rear bucket seats
- New 19 inch alloy wheels (4) and quad exhaust outlets
- Leather wrap sports profile steering wheel
- Bose® premium nine speaker audio system
- Electric sunroof

VALIDATION

- 3.29 million engineering development kilometres
- 282 engineering development and validation vehicles
- Engineering development began in July, 2009, with development activities carried out in a range of facilities around the world:
    - Holden Engineering Centre, Melbourne, Victoria, Australia
    - Holden Proving Ground, Lang Lang, Victoria, Australia
    - Desert Proving Ground, Yuma, Arizona – powertrain and altitude testing
    - Kapaskasing, Canada – cold weather durability testing
    - GM Proving Ground, Milford, Michigan
    - Computer Aided Engineering facility, Bangalore, India
    - Airbag test facility, Valladolid, Spain
    - Idiada, Spain – Fuel economy testing, vehicle coast down
    - Winter Test facility, Arjeplog, Sweden – winter testing, stability control development
    - Nurburgring, Germany

TECHNICAL DATA OVERVIEW

ENGINE

	3.0L HFV6	**3.6L LPG V6**	**3.6L SIDI HFV6**	**3.6L SIDI HFV6**	**6.0L V8 AFM**	**6.0L V8**
Engine type	60° V6 DOHC SIDI	60° V6 DOHC	60° V6 DOHC SIDI	60° V6 DOHC SIDI	90° V8 OHV	90° V8 OHV
Transmission	6-speed AT	6-speed AT	6-speed AT	6-speed MT	6-speed AT	6-speed MT
Transmission type	GMPT 6L45E	GMPT 6L45E	GMPT 6L45E	Aisin Warner AY6	GMPT 6L80E	Tremec TR6060
Capacity (cc)	2997	3564	3564	3564	5967	5967
Compression ratio	11.7	12.2	11.5	11.5	10.4	10.4
Maximum power (kW)	185	180	210	210	260	270
Maximum torque (Nm)	290	320	350	350	517	530
Bore x stroke	89.0 x 80.3mm	94.0 x 85.6mm	94.0 x 85.6mm	94.0 x 85.6mm	101.6 x 92 mm	101.6 x 92 mm
Fuel management system	Direct Injection	PFI returnless	Direct Injection	Direct Injection	Sequential Fuel Injection	Sequential Fuel Injection
Fuel requirement	91 RON, up to E85	LPG	91 RON, up to E85	91 RON, up to E85	91 RON, up to E85	91 RON, up to E85
Fuel tank capacity (L)	71	84.4	71	71	71	71

TRANSMISSION

	3.0L SIDI HFV6	3.6L LPG V6	3.6L SIDI HFV6	3.6L SIDI HFV6	6.0L V8 with AFM	6.0L V8
	6-speed AT	6-speed AT	6-speed AT	6-speed MT	6-speed AT	6-speed MT
1st	4.06	4.06	4.06	4.48	4.03	3.01
2nd	2.37	2.37	2.37	2.58	2.36	2.07
3rd	1.55	1.55	1.55	1.68	1.53	1.43
4th	1.16	1.16	1.16	1.19	1.15	1
5th	0.85	0.85	0.85	1	0.85	0.71
6th	0.67	0.67	0.67	0.75	0.67	0.57
Reverse	3.2	3.2	3.2	3.96	3.06	3.28
Final drive ratios	3.27				2.92	3.45

CHASSIS

	Evoke	Calais Calais V	SV6	SS SSV	Redline	Caprice Caprice V
Front suspension	MacPherson Strut	MacPherson Strut	MacPherson Strut	MacPherson Strut	MacPherson Strut	MacPherson Strut
Rear suspension	Independent Multilink	Independent Multilink	Independent Multilink	Independent Multilink	Independent Multilink	Independent Multilink
Suspension Setting	FE1 Touring	FE1 Touring	FE2 Sport	FE2 Sport	FE3 Ultra Sport	FE1 Touring
Steering	EPS Variable assist	EPS Variable assist	EPS Variable assist	EPS Variable assist	EPS Variable assist	EPS Variable Assist
Steering Tune	Touring	Touring	Sports	Sports	Sports and Competitive	Touring
Brakes (mm) Ft **Rr**	298 302	298 (321 – V8) 302 (324 – V8)	298 302	321 324	355 324 Brembo	321 (298 – LPG) 324 (302 – LPG)
Track Sedan (mm)						
Front	1602	1593	1592	1592 1593 SSV	1593	1593
Rear	1618	1609 Calais 1608 CalaisV	1608	1608	1590	1608
Track Sportwagon (mm)						
Front	1602	1593	1592	1592 1593 SSV	1593	
Rear	1617	1608	1607	1607 1608 SS V	1590	
Track Ute (mm)						
Front	1600		1592	1592 1593 SSV	1593	
Rear	1614		1606	1606	1588	
Wheels and Tyres						
Sedan and Sportwagon	16x7 Alloy 225/60 R16 Comfort LRR	Calais 18x8 Alloy 235/50 R18 Comfort LRR Calais V 19x8 Alloy 245/40 R19 Comfort LRR	18x8 Alloy 245/45 R18 Sports	SS 18x8 Alloy 245/45 R18 Sports SSV 19x8.5 Alloy 245/40 R19 Performance	Front 19x8.5 Alloy 245/40 R19 UHP Rear 19 x 9 Alloy 275/35 R19 UHP	Caprice 18x8 Alloy 235/50 R18 Comfort LRR Caprice V 19x8 Alloy 245/40 R19 Comfort LRR
Ute	16x7 Steel 225/60 R16 Comfort LRR		18x8 Alloy 245/45 R18 Sports	SS 18x8 Alloy 245/45 R18 Sports SSV 19x8.5 Alloy 245/40 R19 Performance	Front 19x8.5 Alloy 245/40 R19 Performance Rear 19x9 Alloy 275/35 R19 Performance	

KERB WEIGHT

Kerb Weight is the weight of the vehicle with standard equipment when it is unoccupied, unladen and full fuel tank and all other fluids.

Optional accessories and cargo-carrying devices are excluded from the Kerb Weight calculation.

Sedan (kg)

Evoke		Calais	Calais V		Caprice	Caprice V
3.0L SIDI	3.6L LPG	3.6L SIDI	3.6L SIDI	6.0L V8	3.6L LPG	6.0L V8
AT	AT	AT	AT	AT	AT	AT
1622	1704	1702	1730	1778	1816	1851
Max braked towing (kg)						
1200	2100	2100	2100	2100	2100	2100

SV6			SS		SSV		Redline	
3.6L SIDI	3.6L SIDI	3.6L LPG	6.0L V8	6.0L V8	6.0L V8	6.0L V8	6.0L V8	6.0L V8
MT	AT	AT	MT	AT	MT	AT	MT	AT
1688	1685	1737	1729	1744	1745	1754	1766	1780
Max braked towing (kg)								
1600	2100	2100	1600	2100	1600	2100	1600	2100

Sportwagon (kg)

Evoke		Calais	Calais V		SV6		SS	SSV	Redline
3.0L SIDI	3.6L LPG	3.6L SIDI	3.6L SIDI	6.0L V8	3.6L SIDI	3.6L LPG	6.0L V8	6.0L V8	6.0L V8
AT	AT	AT	AT	AT	AT	AT	AT	AT	AT
1717	1800	1798	1808	1866	1776	1828	1836	1849	1851
Max braked towing (kg)									
1200	2100	2100	2100	2100	2100	2100	2100	2100	2100

Ute

Ute	SV6		SS		SSV		Redline	
3.6L SIDI	3.6L SIDI	3.6L SIDI	6.0L V8	6.0L V8	6.0L V8	6.0L V8	6.0L V8	6.0L V8
AT	MT	AT	MT	AT	MT	AT	MT	AT
1656	1680	1681	1720	1733	1736	1749	1739	1753
Max braked towing (kg)								
1600	1600	1600	1600	1600	1600	1600	1600	1600

FUEL ECONOMY

Improving fuel efficiency was central to Holden's engineering development of the new VF Commodore.

As a result, every VF Commodore and WN Caprice model performs better than its predecessor – some models by up to 8.2 per cent – based on the official ADR81/02 test.

This has been achieved through efforts to significantly reduce mass and improve aerodynamic performance, new engine calibrations, 500 RPM idle speed and the addition of Electric Power Steering. Evoke also gains a high efficiency differential.

			Combined Fuel Consumption (L/100km)		
VEHICLE DESCRIPTION	**ENGINE**	**TRANS**	**MY12**	**MY14**	**Improvement**
SEDAN					
Evoke	3.0L SIDI V6	6-SPD AT	8.9	8.3	6.7%
Calais	3.6L SIDI V6	6-SPD AT	9.5	9.0	5.3%
Calais V					
SV6					
SV6	3.6L SIDI V6	6-SPD MT	9.7	9.0	7.2%
SS	6.0L V8	6-SPD AT	12.3	11.5	6.5%
SSV					
Calais V				11.7	4.9%
SSV Redline				11.8	4.1%
SS	6.0L V8	6-SPD MT	12.2	11.5	5.7%
SSV					
SSV Redline				11.8	3.3%
Evoke	3.6L V6 LPG	6-SPD AT	11.8	11.5	2.1%
SV6			12.3	11.9	3.5%
LWB					
Caprice V	6.0L V8	6-SPD AT	12.3	11.7	4.9%
Caprice	3.6L V6 LPG	6-SPD AT	12.3	12.1	2.0%
UTE					
MY12 Omega	3.0L SIDI V6	6-SPD AT	9.6	NA	
MY14 Ute	3.6L SIDI V6	6-SPD AT	NA	9.0	6.3%
SV6			9.8		
SV6	3.6L SIDI V6	6-SPD MT	9.8	9.0	8.2%
SS	6.0L V8	6-SPD AT	12.4	11.5	7.3%
SSV					
SSV Redline				11.8	4.8%
SS	6.0L V8	6-SPD MT	12.3	11.5	6.5%
SSV					
SSV Redline				11.8	4.1%
SPORTWAGON					
Evoke	3.0L SIDI V6	6-SPD AT	8.9	8.6	3.4%
SV6	3.6L SIDI V6	6-SPD AT	9.8	9.3	5.1%
Calais					
Calais V					
SS	6.0L V8	6-SPD AT	12.3	11.7	4.9%
SS V					
SS V Redline				11.8	4.1%
Calais V			12.4	11.7	5.6%
Evoke	3.6L V6 LPG	6-SPD AT	12.3	11.8	4.5%
SV6				12.1	2.0%

CO2 EMISSIONS

- Engines comply with Euro IV emissions standards
- Green Vehicle Guide rating: 2.5 stars

			CO2 Emissions (g/km)		
VEHICLE DESCRIPTION	**ENGINE**	**TRANS**	**MY12**	**MY14**	**Improvement**
SEDAN					
Evoke	3.0L SIDI V6	6-SPD AT	210	198	5.9%
Calais	3.6L SIDI V6	6-SPD AT	228	216	5.4%
Calais V					
SV6					
SV6	3.6L SIDI V6	6-SPD MT	230	215	6.1%
SS	6.0L V8	6-SPD AT	292	274	6.1%
SS V					
Calais V				278	4.9%
SSV Redline				282	3.5%
SS	6.0L V8	6-SPD MT	288	274	5%
SS V					
SS V Redline				281	2.4%
Evoke	3.6L V6 LPG	6-SPD AT	189	185	2.0%
SV6			198	191	3.5%
LWB					
Caprice V	6.0L V8	6-SPD AT	292	278	4.9%
Caprice	3.6L V6 LPG	6-SPD AT	198	194	2.0%
UTE					
MY12 Omega	3.0L SIDI V6	6-SPD AT	229	NA	
MY14 Ute	3.6L SIDI V6	6-SPD AT	NA	216	7.3%
SV6			233		
SV6	3.6L SIDI V6	6-SPD MT	231	215	7.0%
SS	6.0L V8	6-SPD AT	296	274	7.4%
SS V					
SS V Redline				282	4.8%
SS	6.0L V8	6-SPD MT	291	274	5.8%
SS V					
SS V Redline				281	3.5%
SPORTWAGON					
Evoke	3.0L SIDI V6	6-SPD AT	210	206	2.0%
SV6	3.6L SIDI V6	6-SPD AT	233	222	4.8%
Calais					
Calais V					
SS	6.0L V8	6-SPD AT	292	278	4.9%
SS V					
SS V Redline				282	3.4%
Calais V			297	278	6.5%
Evoke	3.6L V6 LPG	6-SPD AT	198	189	4.5%
SV6				194	2.0%

DIMENSIONS

EXTERIOR

	WIDTH (exl mirrors)	LENGTH	HEIGHT	WHEELBASE	GROUND CLEARANCE (kerb)	CARGO VOLUME (L)	LIFTOVER HEIGHT (from ground)
SEDAN							
Evoke	1898	4947	1471	2915	137	495	750
SV6		4966					
SS/SS V							
Calais/V		4950					
Caprice/V		5160	1470	3009		531	749
SPORTWAGON							
Evoke	1898	4919	1474	2915	137	895 (2000 behind ft seats)	646
SV6		4939					
SS/SS V							
Calais/V		4924					
UTE							
Ute	1898	5062	1494	3009	137	2064 (Cargo length)	642
SV6		5083					
SS/SS V							

INTERIOR

	FRONT				REAR		
	HEAD ROOM	LEG ROOM Accelerator	SHOULDER ROOM	ENTRANCE HEIGHT	LEG ROOM	SHOULDER ROOM	ENTRANCE HEIGHT
Sedan	985	1074	1502	775	1009	1498	810
Sportwagon							
Ute							
Caprice/V					1097	1497	

CHASSIS

Holden engineers approached VF chassis development with a strong focus on mass reduction to achieve fuel economy gains, balanced against objectives such as drive quality, noise and vibration refinement, ride, handling and vehicle control. As a result, Holden has updated more than 60 per cent of VF chassis components.

VF is characterised by a lighter, more agile chassis for confident and predictable handling that is also fun-to-drive. VF also marks the introduction of new electronic power steering system, lightweight aluminium suspension components and electric park brake.

FE1 highlights (Evoke, Calais):

- Ride and handling optimised to deliver a refined, secure, and responsive driving experience
- Increased body motion and roll control with tighter damper tune and larger stabilizer bars
- Sharper vehicle response with faster steering ratio and speed variable steering efforts from the new EPS system
- Larger stabilizer bars front and rear
- New damper tuning
- New 235/50 R18 Bridgestone T001 comfort tyre for Calais with optimised construction and tread pattern to deliver a refined ride and reduced noise
- Touring steering calibration optimized for everyday comfort
- Faster on-centre steering ratio for sharp and nimble vehicle response

FE1 highlights (Calais V, Caprice, Caprice V)

- Ride and handling optimized to deliver a refined, secure, and responsive driving experience
- Addition of larger bore struts with internal rebound springs enable smoother ride comfort whilst maintaining ride and roll control
- New 245/40R19 comfort tyre Bridgestone T001 for optimized construction and tread pattern to deliver a refined ride and reduced noise
- Sharper response with faster steering ratio and speed variable steering efforts from the new EPS system
- Touring steering calibration optimised for everyday comfort
- Faster on-centre steering ratio for sharp and nimble vehicle response

FE2 highlights (SV6, SS, SS V)

- Ride and handling optimized to deliver a rewarding sports driving experience
- New damper tune
- 18-inch and 19-inch sports tyres
- Sharper response with faster steering ratio and speed variable steering efforts from the new EPS system
- Sport steering calibration optimized for increased vehicle feedback
- Faster on-centre steering ratio for sharp and nimble vehicle response

FE3 (SS V Redline)

- Ride and handling performance tuned for track capable handling performance to optimize spirited driving
- Super sharp vehicle response, significantly reduced roll angle, firm and responsive ride control to ensure optimum feedback
- Larger bore struts with rebound springs and new damper tuning to deliver sharper vehicle response and significantly reduce roll angle
- Larger front and rear stabilizer bars enables significant reduction in roll angle
- Ultra High Performance tyres 245/40 R19 front, 275/35 R19 rear Bridgestone RE050A provide significantly higher cornering and braking grip
- Wider rear tyre optimizes corner exit traction
- Sharper response with faster steering ratio and speed variable steering efforts from the new EPS system
- Sport steering calibration optimized for increased vehicle feedback
- Competitive steering calibration when Competition Mode ESP selected provides the ultimate steering feel for spirited driving.
- Competitive Mode in ESP enables spirited driving with less intervention whilst maintaining the security delivered by the stability control system
- Launch control available when Competitive Mode selected to optimize vehicle acceleration (manual transmission only)
- Faster on-centre steering ratio for sharp and nimble vehicle response

Electric Power Steering

VF Commodore's new EPS system has speed sensitive steering to enable low speed agility and high speed stability, while the on centre steering ratio is increased for crisper steering response. It also contributes to VF Commodore's improved fuel economy.

Holden has developed three unique steering calibrations for VF Commodore:

- Touring – FE1 (Evoke, Calais, Calais V, Caprice)
- Sport – FE2 & FE3 (SV6, SS, SS V)
- Sport and Competitive – FE3 (SS V Redline)

Electric Park Brake

Holden has introduced a new Electronic Park Brake to increase interior space and improve interior ergonomics. Located in the centre console before the gearshift, the EPB is applied by lifting up the switch. The EPB is released by pushing the EPB button down.

The electric park brake will automatically release if the vehicle is running, placed into gear and an attempt is made to drive away.

NOISE AND VIBRATION HIGHLIGHTS

VF Commodore's acoustic environment has been fine-tuned to a new level of quietness and refinement. The driving experience it delivers is characterised by exceptionally quiet cabin surrounds.

Quiet zone technology and tactics designed to block or absorb sound and diminish or eliminate vibrations have been applied to all facets of vehicle design.

For Holden engineers, the goal of quiet zone tuning was to isolate vehicle occupants from as much unwanted noise as possible - while transmitting desirable sound such as engine note character on sports models.

In taking extra measures to dampen vibration and harshness, the team also had to ensure that drivers received the suspension and steering feedback considered essential to the maintenance of Commodore ride and handling character.

Advanced acoustic measurement and analytical technologies were utilised to combat powertrain, road and wind noise intrusion across several fronts.

The process involved virtual and physical testing to validate aerodynamic, structural and body sealing measures, engine bay isolation and noise path reduction among a multitude of soundproofing initiatives, large and small.

Reduced powertrain noise

- New light weight, dissipative cabin side dash matt insulator, which is thicker and has a greater area of coverage
- New engine bay steel plenum replaces the plastic plenum on VE Commodore for greater noise reduction
- New light weight acoustic instrument panel close-out hush panels
- Improved isolation of auto shifter linkage to transmission
- Retuned engine bay acoustic insulators

Reduced steering wheel vibration

Holden has reduced steering wheel vibration through a new, stiffer steering column and lighter and stiffer aluminium instrument panel beam.

Electric Power Steering

The adoption of a new electric power steering system has eliminated a number of N&V factors synonymous with traditional hydraulic steering systems, including:

- Power steering hiss
- Power steering pump moan
- Steering pump moan at full lock

Wet splash and dirt road noise reduction

Holden has adopted new light weight acoustic wheel house liners to reduce high frequency wet splash and dirt road noise.

Road noise and ride comfort

A new tyre selection has aided improved road noise and ride comfort, including:

- new 18-inch comfort tyre on Evoke, Calais and Caprice
- new 19-inch comfort tyre on Calais V, Caprice V

Torsional stiffness
Despite significant Body In White mass reductions, the VF Commodore maintains world class body torsional rigidity.

ELECTRICAL ARCHITECTURE AND FEATURES

The Global-A Serial Data Electrical Architecture applied to the VF Commodore range is one of the most advanced automotive systems of its kind. Its high-and low-speed data network connects system modules around the vehicle and ensures that data is accurately communicated and shared between them.

The Global-A electrical interface employs re-usable, replaceable, modular-type software and controllers. It forms the technological nucleus of all GM's latest product offerings, including the Holden Volt long-range electric vehicle and MY14 Cruze.

The high-speed GM LAN (Local Area Network) data bus can communicate virtually instantaneously. It handles critical control systems such as the modules responsible for anti-lock braking, engine and transmission control and electronic stability control.

The low-speed GM LAN data bus controls modules affiliated with personalised settings, such as instrument panel controls, entertainment and information applications, comfort and convenience applications and occupant protection functions.

Switches for doors, windows, and mirrors operation operate on separate buses using serial communication protocol.

VF models can be equipped with multiple control modules depending upon equipment specification. Each module reviews information sent via the GM LAN Serial Data Network, deciphers it and sends the appropriate command/s for its functional area.

Apart from allowing greater flexibility in technology applications, Global-A electrical architecture also facilitates fast problem diagnosis and more efficient servicing.

Body Control Module

The body control module (BCM) forms the heart of the electrical system, acting as a gateway between the high-speed and low-speed data buses on the GM Global-A architecture. As such, it performs multiple functions, including:
Converting signals from high-speed to low-speed and relaying information/requests between the two data buses, for example: remote start requests, engine oil life resets, airbag status, and outside air temperature.

The BCM also controls many of the vehicle functions operating on the low-speed bus, often interfacing with other modules on the system. Some of these functions include:

- Remote vehicle start – all automatic vehicles
- Vehicle access, including passive entry/passive start
- Interior lighting, including ambient lighting for door handles, centre console
- Automatic rear wiper on reverse gear (Sportwagon)
- Exterior lighting control, including Daytime Running Lamps, stop lamps, flashing emergency braking feature, reversing lamps, park lamps and turn signals
- Forward-looking light sensor (tunnel recognition) – rain sensor equipped models
- Heated seat function
- Power windows
- Window wiper/washer control

- Electrical power management and control
- Battery run-down protection
- Vehicle immobiliser
- Content theft deterrent

Customisable features

- Remote Start Heated Seats
- Auto Wipe In Reverse Gear
- Passive Door Unlock
- Passive Door Lock
- Exit and Entry lighting
- Remote lock/unlock feedback
- Priority keys
- Auto door lock/unlock

Holden MyLink

MyLink is Holden's next generation infotainment system and allows drivers to integrate their compatible smartphone and stored media with their car.

Available in VF Commodore, Model Year 2014 Holden Cruze, Barina CDX and upcoming Holden Malibu, the system connects to compatible devices via Bluetooth, auxilliary outlet or USB and a large colour touch screen allows the driver to control selected functions including music, radio and telephone and vehicle controls.

The driver is able to access stored songs from their phone or MP3 player and their favourite FM/AM stations via car radio. When a mobile device is connected to the MyLink system, the driver will also be able to stream digital content from apps including Pandora Internet Radio and Stitcher SmartRadio.

Key Features of MyLink in VF Commodore:

High-resolution, full-colour eight-inch touch screen display

MyLink's large eight-inch full-colour graphic interface is located in the Integrated Centre Stack. It is designed to minimise the number of steps required to navigate the system.

The MyLink home page can be customised with favourite features, and among other functions the screen displays time; radio digital signalling (RDS); graphic text; heating ventilation and air-conditioning functions; exterior ambient temperature; band selection and frequency; rear camera video; Navigation mapping where fitted; front and rear park assist symbols.

Embedded Apps – playing Pandora® and Stitcher SmartRadio™

When a mobile device with 3G data connection is hooked up to the MyLink system, Pandora® Internet Radio and Stitcher SmartRadio™ can be streamed through the Holden MyLink system.

Drivers can access their Pandora application through the MyLink touch screen, streaming favourite radio stations as well as using the familiar "thumbs up" and "thumbs down" buttons to tune their station preferences. They can also select the next track via a steering wheel button or the touch-screen controls.

Via the Stitcher embedded app, drivers will be able to select from over 15,000 news, comedy, sports and talk radio shows and podcasts from global broadcasters including NPR, CNN, Fox and the BBC.

Using voice commands, it's enough to say "Tune Pandora" or "Tune Stitcher" for the station to start playing in a few seconds.

Enhanced Voice Recognition

Powered by Nuance,® a leader in voice recognition technology, Holden MyLink delivers high-accuracy speech recognition that allows the use of simple voice commands to initiate phone calls, select radio stations or play music from a smartphone, iPod®/iPhone®, MP3 player or USB device and internet radio stations Pandora® and Stitcher Smart Radio.

Voice controls for Bluetooth® functions include dial, redial, save and adding a voice tag. Control over certain radio, audio system and navigation functions includes selecting radio stations, audio tracks, navigation settings and pre-set destinations.

Some sample commands include: "Call Amanda" .. "Play [artist name]" .. "Search Folder [name]".

MyLink's voice activation capability also benefits from Commodore's super-quiet new interiors. Quiet zone tuning systems and processes effectively block or absorb sound and dampen or eliminate vibrations.

Bluetooth® communication

Holden MyLink improves paired mobile phone connectivity via voice recognition technology.

To activate voice control, the driver simply taps the Push to Talk button on the steering wheel and says, for example: "Call (name of contact) at home". The system will access the phone book, find the number and dial it. To dial by number, the driver presses the Push to Talk button, and says "dial .. (number)".

Calls can also be made by navigating contact listings on MyLink's touch-screen interface, or by using the touch-screen keypad. Calls are taken by pressing the steering wheel control or touch-screen icon.

Holden MyLink will also receive an SMS and offer the driver the opportunity to listen to the SMS or ignore. Once an SMS is received, the driver can choose from a variety of preset replies or set their own (while stationary).

Simply selecting their choice via the touch screen and pressing send will send the reply.

Bluetooth Audio Streaming

- Using the touch screen, audio files can be wirelessly transferred for playback from a compatible paired mobile phone or Bluetooth device. Supported devices are phones and music players.

AM/FM Radio

- Capacity to set a Favourites List display of AM and FM stations, 4 separate favourite pages (6 favourites per page). 24 in total, grouped together in any order.

- Radio Data System (RDS) display functions. When tuned to a station with RDS broadcast capability, screen text can:
  - display the station name (e.g. The Fox; Triple M)
  - broadcast text – such as song titles
  - display playlist categories – Rock, Classical, Pop, Easy Listening... etc

Single CD player (DVD where fitted)

The colour touch-screen displays CD track, artist name and album details (if supported by the CD).

The system also supports DVD playback via the touch screen (high series models) when the vehicle is stationary.

Navigation with live traffic updates
(Standard on V-Series and optional on all other models)

New features include
- split screen intersection views
- split screen zoom view with moving vehicle indicator - enables simple guidance through complex intersections

The high-feature navigation system delivers high-clarity full colour mapping system, intuitive controls, handy traffic management and point of interest functions. Voice guidance integrated into vehicle audio system.
- Touch screen keyboard facilitates easy text entry
- Isometric and 3D map views – map appearance can be customised to suit (2D North, 2D Direction or 3D Direction)
- On-screen turn-by-turn and audio route guidance (with an Australian accent)
- Add/Edit and Detour stages allow addition of intermediate stages and detours to a trip
- Simulate Trip feature – replicates a journey in high speed

Traffic Management Control (TMC)
- This feature (transmitted by FM radio frequency) allows users to receive real-time traffic information and warnings of congestion due to accidents, roadworks, etc – which show up as black spots/triangles on the colour map
- Navigation can be set (automatically or manually) to re-route and avoid congested areas.
- A list of all TMC traffic events can be accessed via the touch screen
- TMC data can also display on audio screen settings
- Speed limit indication (in the form of a speed sign) can also be set to appear on the navigation map.

Point of Interest
Holden MyLink navigation will also identify nearest points of interest, categorised and sub-categorised under topics including: Food. Accommodation. Services. Shopping. Automobile. Sports Facilities. Medical. Tourism and Entertainment.

Speaker system
Modifications to speaker specification, placement and in-vehicle integration complement VF's acoustically improved cabin environment and result in a fuller, more natural sound.

Tweeters are now mounted in the A-pillar to raise and widen the 'sound stage'. Front door speakers, now true low-range woofers, are mounted down low and forward to further promote realistic sound distribution.

Full-range rear door speakers provide clarity and definition for back seat passengers. All door speakers feature better integration with door trim and sheet metal surrounds to deliver improved bass response.

Bose® premium audio
A 220 Watt Bose® audio system [optional on Calais V-Series and SS V-Series sedans] employs nine speakers, including sub-woofers, to produce a pure, neutral tone balance from one end of the sonic spectrum to the other.

Colour Head-Up Display (HUD)

A standard feature on Calais V and SS V Redline, Head-Up Display projects important cluster information on the windscreen, allowing the driver to view it without looking away from the road.

The transparent, coloured display features four screens, selectable by the driver, which show such information as digital speedometer, tachometer, infotainment and turn by turn navigation.

HUD uses a series of mirrors to display the information on a specific high-technology windscreen. The HUD-enabled windscreen incorporates wedge lamination to provide excellent optic focus for the delivery of clear, sharp images.

Drivers can adjust the brightness and location of the image, or turn it off via a switch located next to the headlamp control.

Head-Up Display is based on technology originally developed in the US for military fighter jets. It enabled pilots to view vital information with the head positioned 'up' and looking forward, instead of looking down at lower instrument readouts.

Information displayed by HUD can be selected to display combinations of the following features:

- Vehicle speed
- Tachometer
- Turn signal indicators
- High beam indicator
- Selected gear
- Forward Collision Alert indicator
- Front park assist indicator
- Turn by turn navigation display
- Audio functions
- Outside air temperature
- Phone information
- Vehicle messages
- Lateral Acceleration
- Racing shift lights

Multi Function Display
The Multi Function Display (MFD) – a 3-inch LCD screen positioned in the centre of the instrument cluster graphically communicates menus for vehicle and trip information as well as a myriad of warnings and messages, including a warning to show whether or not rear seat passengers have seatbelts buckled.

The MFD communicates through a combination of icons, text messages, or both.
It provides the following:

<u>Vehicle Information Menu</u>
- Battery Voltage
- Speed Warning

<u>Trip Information Menu</u>
- Trip 1
- Fuel Range
- Average Fuel Economy
- Instant Fuel Economy
- Average Vehicle Speed
- Digital Speed
- Turn by Turn Navigation where fitted

<u>Fuel Economy Menu</u>

- Average fuel economy over last selected distance (25/100/500km); best score for that distance
- Average fuel economy for last 50 km

Warnings/Messages

- Service ESC
- Automatic Light Control On, Automatic Light Control Off
- Ice Possible, Drive With Care
- Passenger Door Open, Driver Door Open, Bonnet Open
- Boot Open
- Theft Attempted
- Replace Battery In Remote Key
- Park Assist Off
- Service Parking Assist
- Service Airbag
- Cruise Set To (selected km/h)
- Battery Saver Active
- Fuel Level Low
- Service Battery Charging System
- Engine Power Is Reduced
- Engine Oil Low – Add Oil, or Oil Pressure Low – Stop Engine
- Engine Hot – Stop Engine, or Engine Hot – Idle Engine
- Engine Power Is Reduced
- Transmission Hot – Idle Engine
- Left Rear Turn Indicator Failure
- Right Front Turn Indicator Failure
- Low Brake Fluid
- Low Battery

Sensor Key with Push Button Start
This super-convenient 'keyless' feature allows drivers to unlock, start and lock the car simply by carrying the sensor key with them.

On approach, integrated antennas in the vehicle body identify a radio pulse generated by the key fob. When the button on the door handle is pressed, the door will automatically unlock to allow access.

When the ignition button (located to the left of the instrument cluster) is pushed, the driver's key is authenticated. The vehicle immobiliser and electronic steering column lock are automatically released so that the engine can start.

Once enabled in the vehicle setting menu in the radio, the vehicle will lock after eight seconds when the driver exits the vehicle with the sensor key and walks away. If the driver presses the button on the door handle after exiting the vehicle, the vehicle will lock immediately. The system also electronically locks the steering column.

All sensor key -equipped vehicles have an override system – a key insertion point located inside the centre console – in the rare event that a problem with the key signal may occur.

An alert will 'chirp' if the driver has closed a door with the key left in the vehicle.

Sensor key with push button start is a standard feature on Calais, Calais V, SS V, SS V Redline, Caprice and Caprice V.

Smart Remote Start System
A remote vehicle start feature is available on all VF models with automatic transmission.

It seamlessly integrates with anti-theft and passive entry systems.

Smart Remote Start operates via key fob activation from as far away as 100 metres.
It not only starts the vehicle but also activates the heating, ventilation and air conditioning system, which will operate at the 'last known' fan and temperature setting.

Remote Start will also activate the heated front seats feature, providing that inside vehicle and outside temperatures are below a certain threshold.

Power, Heated Seats
Eight-way powered and heated driver and front passenger seats are standard on Calais V. Front heated seats offer three comfort levels: low, medium and high.

The system is designed for quick warm-up and uses an electronically controlled heat pad integrated into the seat cushion and back.

Heated seats are actuated via a control located on the centre console and the selected setting is identified in the colour touch-screen display. For optimal comfort and support, the seat can be adjusted via independent front and rear tilt, seat fore and aft position and seat back tilt.

Memory Features
The memory feature can save and recall three separate memory settings for driver seat and exterior mirror positions.

The vehicle will automatically save these positions to the current driver's remote keyless entry transmitter/key fob. When the unlock action is commanded, the powered seat and both exterior mirrors will manoeuvre to previously stored positions as required.

The memory buttons located on the driver door above the armrest can also be used to manually save and recall memory settings for the same functions.

Reverse Tilt Exterior Mirrors (Calais V, Caprice V)
When reverse gear is selected, the exterior passenger rear view mirror will tilt down automatically to give the driver a better view of the kerb when parking and show any obstructions. After shifting back into park or drive, the mirror returns to the previously adjusted position. Exterior mirrors are also heated, to provide optimal clarity in cold conditions.

Automatic Headlamp System with Forward Light Sensor (Calais V, Caprice V)
A new forward-looking ambient light sensor on rain sensor-equipped vehicles enables tunnel detection for more rapid automatic headlamps-on activation.

MASS REDUCTION

Mass reduction was instrumental to Holden achieving VF Commodore's increased fuel efficiency and handling gains and was a major focus of the MY14 engineering program.

Myriad mass reduction and optimisation measures applied across the board reaped big rewards in real world fuel savings, while drive character, structural strength and safety performance all improved as a result.

Evoke benefited most from mass reduction courtesy of a range of modifications which include the fitment of a single exhaust system a lighter driveline, and smaller torque converter. Overall, Evoke sedan is 43 kilogram lighter compared to the Omega it replaces.

As a bonus, VF Commodore's lighter weight also has a positive impact on handling and overall performance – more responsive, with a sharper, more European-style feel that's accentuated by its precision-tuned electric power steering system.

Aluminium components
The switch from steel to an aluminium bonnet and boot lid breaks new ground for Holden.

The new panels are equally as strong as their steel equivalents but are significantly lighter – a big mass saving which now sees the bonnet supported by a single gas strut.

The fitment of a lightweight aluminium instrument panel beam, stiffer and just as strong as the steel support it replaces, also brings noise and vibration benefits.

Other fuel-saving contributors include the utilisation of aluminium suspension components and the increased application of stronger, lighter advanced high strength steels in Commodore's world-standard rigid body structure.

Key areas of mass reduction:

- Body in White
- Aluminium bonnet and boot lid
- Single Exhaust (3.0 L SIDI)
- Aluminium Front Knuckles and Lower Control Arm
- 195mm Differential (3.0 L SIDI)
- Aluminium Instrument Panel Beam
- **Holden has achieved a net reduction of 43kg**

AERODYNAMICS

Holden designers and engineers worked in close collaboration to sculpt Commodore's slippery new shape, making extensive use of virtual modelling and wind tunnel test technology.

The team achieved remarkable efficiency improvements to produce a streamlined seven per cent reduction in Commodore's drag co-efficient (Cd) rating.

For aero advantage, frontal areas of the wheel arches have been modified to reduce turbulent airflow. At the rear, the re-designed boot lid sits higher in the airstream and proficiently controls air separation off the back via an integrated spoiler.

Every detail is precisely tuned; even the fine vertical crease that runs through the sedan tail lamps has a purpose beyond good looks. Other contributors include optimised grille openings, red-designed fog lamps, front air dam and rear valance profile.

Air deflectors on rear wheels and air intake modifications to reduce air bleed make a further contribution to Evoke's exceptional fuel economy performance.

VEHICLE PERFORMANCE

Powertrain
The VF Commodore range continues to offer 3.0-litre and 3.6-litre versions of the advanced and continuously improved Australian-built SIDI Direct Injection V6, the redoubtable 6.0 Generation IV Alloy V8 and a dedicated 3.6-litre Vapour Injected LPG V6.

Holden has improved the all-round drive quality from its proven SIDI Direct Injection V6 and Gen IV V8 powertrains, which deliver a refined and responsive drive experience.

New powertrain calibrations are applied to every engine in the range to enable fuel efficiency gains.

Powertrain highlights include:

- All powertrains optimised for fuel efficiency
- V6 and V8 drive quality smoother, more refined
- V6 manual transmission calibrated for improved launch control
- More-responsive V8 take-off feel
- New V6 and V8 clutch pedal systems – lighter operation, smoother, more consistent gearshifts
- Revised V8 pedal response for improved drive quality and fuel economy; better utilises engine torque
- New transmission shifters are significantly upgraded for improved aesthetics and quality of shift feel
- Single exhaust and lightweight 3.0L SIDI V6 driveline components facilitate fuel saving
- Driveline updates improve overall drive quality
- Flex Fuel technology across petrol range

FE1 Touring & FE2 Sport Suspension variants

- Re-tuned and optimised Ride & Handling performance to accommodate vehicle mass reduction
- 18 and 19 inch luxury tyres developed for supreme comfort and improved fuel economy (FE1 variants including Calais, Calais V and Caprice)

New ESC Controller (Bosch System 9)

- Mass reduction
- Volume reduction

Hill Start Assist

- Actively holds vehicle when brake pedal is released on an uphill incline
- Eliminates vehicle rollback and assists with uphill launch
- System also works downhill when reverse is selected

Trailer Sway Control

- Trailer oscillation algorithm detects trailer instability
- Applies brakes and reduces engine torque to dampen the trailer oscillations

Dynamic Electric Park Brake

- Decelerates vehicle via the ESC modulator when EPB button is engaged.
- Provides excellent stability and can decelerate vehicle up to 0.6 gs

No Vacuum Brake Assist

- Detects a very low brake booster vacuum condition
- The ESC modulator then supplements brake pressure to decelerate vehicle

Redline

FE3 Redline

- Re-tuned for track capable handling performance
- Reduced vehicle roll angle via stiffer roll bars
- Ultra High Performance tyres for better handling and braking
- Competitive steering calibration when Competitive Mode ESP selected

Competitive Mode (Redline only)

- Performance ESC calibration tuned for race track conditions
- Optimises lap times for varying driver capability

Launch Control (Redline manual transmission only)
- Available only when Competitive Mode has been selected
- Calibrated to improve take-off performance
- Optimises 0-100 km/h times to accommodate variation in driver capability

Brembo Brakes
- Redline features high-performance Brembo front brakes
- Equipped with four-piston, two-piece aluminium front calipers and 355mm front rotors.
- The two-piece aluminium front calipers are finished in silver gloss and provide increased stiffness to reduce fluid displacement and caliper deformation without adding weight
- Enhanced braking feel and overall vehicle dynamics
- A patented pillar-vented rotor design improves cooling and durability

SAFETY

Holden has built upon VE Commodore's world class safety credentials with a focus on increased passenger safety, particularly child passenger safety, side impact protection and pedestrian protection.

Holden has thoroughly safety-tested the VF Commodore, with every key safety metric improved across the range. In addition, all cars are now fitted with a rear safety camera, Auto Park Assist and front and rear parking sensors.

VF Commodore introduces a comprehensive array of new safety features and driver aids, including:

- Reverse camera with front and rear parking sensors, Auto Park Assist on every VF Commodore model
- New electronic driver aids, including Lane Departure Warning, Side Blind Zone Alert, Forward Collision Alert, Reverse Traffic Alert and colour Head-up Display
- New ISOFIX child restraint systems on all Sportwagon, sedan models – one of the few vehicles sold in Australia able to accommodate three ISOFIX seats across the back row
- Rear seat belt alert that warns the driver when rear seatbelts are unbuckled in transit
- Boosted side impact protection with latest pelvis/thorax airbags
- Improved safety cage, rollover protection with increased use of advanced strength steels
- Increased pedestrian protection
- Daytime running lamps to increase daylight and night-time visibility (all models except Evoke)
- Emergency brake flashers on rear lamps and centre high-mounted stop lamp active during an emergency braking event

Active Safety Features

Lane Departure Warning
A digital camera is mounted on the windscreen ahead of the rear view mirror helps to combat driver error, distraction and drowsiness by providing lane departure warnings.

This practical active safety feature helps to reduce the risk of collision that arise when drivers stray over lane markings unintentionally, or depart a lane without signalling first.

The Lane Departure System is activated by a control on the steering wheel. It may be deactivated by the driver, according to preference and circumstance.

Forward Collision Alert (FCA)
This advanced and all-new active safety system is standard on Calais V and SS V models. It employs a digital camera to help drivers avoid front-end collisions.

Like Lane Departure Warning, FCA is designed to help minimise the risk of collisions commonly caused by driver error, distraction and drowsiness.

The system looks for vehicles ahead and uses the vehicle's Head-Up Display (HUD) to warn drivers if they are approaching another vehicle too rapidly and a collision appears to be imminent.

If the HUD function is turned off, the collision warning system will override this setting.

Forward Collision Alert operates at speeds above 40 km/h.

Blind Spot Alert
This clever collision-avoidance technology operates via radar sensors located on both sides of the vehicle's rear fascia/bumper.

The system's first purpose is to caution drivers when a vehicle enters a specified 'blind spot' zone in an adjacent lane. The second imperative is to alert drivers to the danger if an attempt is made to change lanes.

The system 'looks' for other vehicles in both rear side blind spots and alerts the driver to their presence via cautionary visual alert in outside rear view mirrors, depending on which side the object is detected.

If the driver indicates to move into that blind zone, the visual alert in the left or right side external mirror will flash.

Reverse Traffic Alert
This technology utilises the same set of radar sensors that operate the Side Blind Zone Alert feature.

It warns the driver of vehicles approaching behind the vehicle when reversing out of a parking space (including angled parking) or a driveway.

Reverse Traffic Alert senses moving cross traffic – up to 25 metres away – that may not be visible to the driver.

The driver is alerted via warning chimes from a speaker on the affected side of the vehicle and by a warning symbol and red directional arrow displayed on the centre stack rear vision camera screen.

Rear Seat Belt Reminder
VF Commodore sedan and Sportwagon are equipped with a rear seat belt indicator feature that notifies the driver, via the Multifunction Display in the instrument cluster, about the status of the rear seat belts.

The system allows the driver to check that rear seat occupants are buckled in before departure. It will also alert the driver if a belt is unbuckled in transit.

Daytime Running Lamps (DRL) (not available on Evoke)
Apart from their obvious good looks, Commodore's LED Daytime Running Lamps are designed to

improve road safety by making the vehicle more conspicuous to other vehicles and to pedestrians.

Daytime Running Lamps function when Auto lighting is selected during daytime ambient light. They illuminate when engine is turned on.

Reversing Camera
Available across the VF range, the rear view camera is a practical aid for reversing in tight spots and a great preventative safety feature.

When the driver selects reverse gear, colour video of objects in the area directly behind the car is displayed on the large colour touch-screen in the centre console. The rear vision camera overrides all other screen displays until transmission is moved out of reverse.

Front and Rear Ultrasonic Park Assist
Every VF model, including the Holden Ute, is equipped with this popular parking aid, which uses eight sensors integrated into front and rear fascias that sequentially send out ultrasonic waves when the vehicle is driven at low speeds.

Emergency brake flashers on rear lamps and centre high-mounted stop lamp
During an emergency braking event, the rear brake lamps and the centre high-mounted stop lamp will flash to warn the drivers of following vehicles.

The system senses rapid deceleration and will trigger the flash signal at a pre-determined point – ABS stop from greater than 50 km/h.

Passive safety features

Airbags
In addition to front drive and passenger and side curtain airbags, VF Commodore and WN Caprice models benefit from larger volume seat-mounted airbags that increase side impact protection by extending the area of body coverage.

The thorax/pelvis airbags incorporate an additional cell that inflates to a higher pressure to better distribute crash energy loads across the occupant's pelvic area as well as the chest. The concept takes advantage of the pelvis' ability to take higher loads while limiting pressure on more sensitive thorax and abdominal areas. The thorax/pelvis airbag is located within the backrest frame of the vehicle's front seats and will deploy within milliseconds of a detected side collision contact.

ISOFIX

VF Commodore's new ISOFIX child seat anchorage system successfully addresses common problems associated with the incorrect fitment of conventional child seats.

ISOFIX provides dedicated attachment points for 'plug in' universal ISOFIX child seats and creates a rock-solid connection between the child seat and the vehicle body structure. Holden's implementation of this easy-to-use system responds to surveys which show that a high proportion – up to three quarters – of child seats installed using the vehicle's lap/sash seat belts and a top tether strap are not fitted securely enough to provide optimal collision injury protection.

Where conventional child seats and infant capsules employ the vehicle's seat belt and a top tether strap, ISOFIX child seats plug into two rigid lower attachment points and are further secured by a top tether.

Advanced Steel Safety Structure
The VF Commodore passenger safety cage is protected by the strategic use of high strength, advanced high strength and ultra-high strength steels and multiple load paths which help to

dissipate crash energy. Advanced high strength steel comprises 49 per cent of VF Commodore's body structure.

The use of ultra-high strength (UHSS) press-hardened Boron steel to reinforce vital areas now extends to the A-pillars and the cross-car front roof header that joins them. This, combined with the advanced high-strength dual-phase steel centre roof bow, provides dual rollover protection far in excess of Australian regulatory requirements. The UHSS B-pillars combine with UHSS door intrusion beams to form the essential elements of side impact protection.

Engine compartment rails, designed for 'softer' crash pulse performance, are now constructed from stronger, lighter advanced dual-phase steel. These employ tailor-welded blanks, which allow tuning of steel gauges to match strength requirements and reduce weight.

TOWING

Across the VF range, maximum towing capacities are:

- All manual transmission vehicles: 1600 kg
- All Utes: 1600 kg
- All 3.6L V6 and V8 auto sedan and Sportwagon: 2100kg
- Evoke 3.0L V6 auto sedan and Sportwagon: 1600kg (may be increased with the fitment of a 1600kg-rated towbar and the removal of aero grille blockers)

SERVICING

Complimentary inspection at 3000km or 3 months, whichever occur first. Then at 15,000 km or 9 months, whichever occurs first; then every 15,000 km or 9 months.

Capped Price Servicing is also available. This covers the first four standard scheduled log book services for the first three years or 60,000 km, whichever comes first.

PLACE OF MANUFACTURE

Vehicles are manufactured at Holden's Vehicle Operations in Elizabeth in the northern suburbs of Adelaide, South Australia. The 3.0L SIDI V6 (LFI) and 3.6L SIDI V6 (LLT) engines are assembled at the GM Holden Global V6 plant in Port Melbourne.