



HOLDEN

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GM Holden Corporate Affairs
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PRODUCT INFORMATION TM Barina RS

Model

- Barina 5-door Hatchback

Dimensions

Length (mm)	4039
Width (mm) – no mirrors	1735
Height (mm) – no roof rails	1511
Wheelbase (mm)	2525
Front/Rear Track (mm)	1493/1490
Front/Rear Leg room (mm)	1061/881
Front/Rear Shoulder room (mm)	1358/1347
Front/Rear Head room (mm)	995/978
Cargo Volume (litres)	
- Rear seats upright	290
- Rear seats folded (60/40 split)	653

Engine

- 1.4 litre DOHC 16-valve 4-cylinder turbo petrol
 - Power: 103kW @ 4900rpm
 - Torque: 200Nm @ 1850rpm

Transmissions

- 6-speed manual transmission
- 6-speed automatic transmission with Active Select

Fuel Economy (ECE tested on 95 RON)

Vehicle	Engine	Transmission	Combined Fuel Consumption (l/100km)
Barina Hatch	1.4 L 4-CYL	Manual	6.5
Barina Hatch	1.4 L 4-CYL	Auto	6.5

CO2 Emissions

Vehicle	Engine	Transmission	CO2 Emissions (g/km)
Barina Hatch	1.4 L 4-CYL	Manual	153
Barina Hatch	1.4 L 4-CYL	Auto	154

Green Vehicle Guide Score

- 1.4L petrol manual/automatic: 4.5 GVG rating

Technical Data Overview

Drive axle:	Front wheel drive
Turning circle:	10.06 metres
Fuel tank capacity:	46 litres
Front suspension:	McPherson strut
Rear suspension:	Torsion Beam
Steering:	Electrically assisted Rack and Pinion (2.3 turns lock to lock)
Brakes:	Diagonal dual circuit Front ventilated discs - 276mm dia Rear solid discs - 268mm dia
Chassis Controls:	ESC, ABS, TCS, BAS, EBD
Kerb weight (kg)	Manual - 1249 Automatic - 1275

1.4 litre DOHC 16-valve 4-cylinder turbo petrol (sourced from Aspern, Austria)

The 1.4 iTi turbo features premium design elements that give it world-class smoothness and durability, including:

- Low-mass hollow-frame cast iron block
- Dual overhead camshafts with variable valve timing
- Chain-driven cams
- Roller-finger camshaft followers
- Piston-cooling oil jets and integrated oil cooler
- Variable-flow oil pump
- Electronically controlled thermostat

The turbocharger is integrated within the exhaust manifold for reduced weight and greater packaging flexibility. A reinforced crankshaft and stronger connecting rods deliver additional strength to support pressurised power and torque over a wide rpm band. Numerous mass-reducing features include a cast iron block with a hollow frame structure, hollow-cast camshafts and a plastic intake manifold.

Compression Ratio:

- 1.4 litre petrol - 9.5:1

6-Speed Manual Transmission

The new Barina RS comes standard with the M32 six-speed manual transmission.

Transmission Highlights:

- Synchromesh System incorporates triple cone synchronizers for first and second gears resulting in enhanced low-gear engagement for smooth and easy launch/shift characteristics
- Needle bearings for all gears ensure low friction gear meshing for better shift quality
- One-piece housing enables a compact, lightweight design
- Revised gear and final drive ratios for RS

M32 Manual Transmission Specifications

Type:	Fully synchronized 6-speed manual
Gear Ratios (:1):	
First	4.273
Second	2.353
Third	1.475
Fourth	1.067
Fifth	0.875
Sixth	0.744
Final drive ratio	4.180
Place of manufacture:	GMK Bupyeong plant, South Korea

6-Speed Automatic Transmission

The optional six-speed automatic front drive transmission, the Hydra-Matic 6T30 enables compact packaging with gear and final drive ratios revised for RS. The gearsets are on the same axis as the engine crankshaft centreline, which makes the entire powertrain unit much shorter fore-to-aft. This provides the ability to enhance crush zones, to increase interior space and lower powertrain height.

Adaptive shift controls include automatic grade braking, which commands the transmission to remain in a lower gear if the vehicle is decelerating or coasting on a downgrade.

Active Select feature via thumb operated controls on the shift lever.

The wide overall ratio spread allows a “short” first gear for maximised acceleration as well as a “tall” overdrive top gear (6th) for low-rpm and engine noise levels when highway cruising.

To save space compared to “freewheeling” gear change mechanisms, the shifts are accomplished by applying and disengaging clutches simultaneously during each gear change. Sophisticated electronics help enable the precision needed to time the clutches for each shift. The first-to-second gear shift uses a freewheeling mechanism, however, which tends to be smoother during shifts between gears with large ratio differences, such as first and second gears.

The torque converter in 6T30 uses a single plate lockup clutch (which enables a purely mechanical coupling with no slippage, and virtually no power loss) and features an oval cross-section shape, called “hyper-elliptical”. This shape reduces the thickness of the torque converter, reducing the space it needs and keeping the overall width of the engine and transmission as narrow as possible for packaging advantages. The single-plate lockup clutch makes use of GM’s electronic controlled capacity clutch (ECCC) technology to help dampen engine vibrations and ensure smooth operation.

6T30 Automatic Transmission Specifications

Type:	Hydra-Matic. Six-speed transverse, electronically controlled, automatic overdrive transmission
Gear Ratios (:1):	
First	4.584
Second	2.964
Third	1.912
Fourth	1.446
Fifth	1.00
Sixth	0.746
Final drive ratio	3.530
Case material:	Die-cast aluminium
Shift pattern:	6 variable bleed solenoids
Torque Converter Clutch:	Electronic Controlled Capacity Clutch (ECCC)
Converter Size (mm):	220
Place of manufacture:	GMK Boryeong plant, South Korea

Vehicle Dynamics

The Barina RS derives much of its confident road feel and driving comfort from its solid, stable foundation. It features:

- A body-integral structure with main underbody rails running continuously from front to rear, providing exceptional strength
- A long, *six-mount engine cradle* which contributes to the exceptional noise and vibration performance, and ride/handling dynamics. Specifically tuned engine mounts with hydraulic mount are tailored to the engine’s inherent torque axis, effectively damping transfer of vibration and noise in the process
- Enhanced chassis-to-body structure interface (i.e. suspension brackets/cradle attachments) design to ensure high stiffness at those points, thus retarding low frequency noise into the cabin. Additional body bracing has been added to RS, along with increased spring rates and stiffer shock absorbers. The result is excellent chassis tuning capability, isolation, durability and vibration/noise suppression
- A stable footprint with a wheelbase of 2525 mm combined with a wide stance (front and rear track 1493/1490 mm) enables an inherently balanced steering and handling feel
- The front stabiliser bar is a 21mm diameter hollow unit. The “non-slide” type light-weight bar is mounted to the front section of the engine cradle with each end of the bar connected to the front strut via a direct acting link rod to maximise its effectiveness

Electric Power Steering

Compared to the constant power demand of a hydraulic power steering pump, electric power steering only demands power from the electrical system when steering input is required. Resultant fuel economy savings are due to a lower ancillary power draw from the engine.

The electric power steering system also allows for greater flexibility with tuning, easily enabling varied steering efforts according to vehicle speed.

The electric power steering has been locally retuned, with a quicker ratio of 2.3 turns lock to lock and unique calibration ensuring a more reactive and sportier drive.

Electronic Stability Control

The ESC system uses electronic brake and traction control capabilities to provide more precise, controlled anti-lock braking performance as well as exceptional traction and yaw stability. The system also provides driver's support during emergency braking and emergency handling.

The ESC incorporates a number of safety functions that include:

- Four channel Anti-lock Braking System (ABS)
- Traction Control System (TCS)
- Electronic Brakeforce Distribution (EBD)
- Brake Assist System (BAS) - This system automatically applies rapid brake line pressure when emergency braking is detected.

Safety

The Barina RS 5-door Hatchback has a five star ANCAP safety rating and offers an impressive level of standard features that include:

- Six airbags (dual front, front side and side curtain)
- Electronic Stability Control (ESC)
- Traction Control System (TCS)
- Anti-lock Braking System (ABS)
- Electronic Brakeforce Distribution (EBD)
- Brake Assist System (BAS)
- Pedal release system
- Seatbelt pretensioners (driver and front passenger)
- Rear seat child restraint anchor points (3)

Wheels and Tyres

- 17 x 6.5 inch alloy wheels and 205/50R17 tyres
- Spare - Tyre inflator kit. No cost option, 15 x 6 inch full size steel wheel and 195/65 R15 tyre

MyLink – Infotainment system

Barina RS features Holden's premium MyLink Infotainment system as standard.

Holden MyLink is app-enabled in-car technology and is available in a range of models including Barina CDX, Trax, Malibu, MY2014 Cruze, VF Commodore/WN Caprice and MY2014 Holden Colorado and Colorado 7 (ex DX)

In the Holden Barina RS, MyLink features:

- 7" full colour touch screen
- AM/FM radio with RDS display
- Audio and phone streaming via Bluetooth (compatible devices)
- View images, movies while vehicle is parked
- Phone integration
- Phone book support
- Pandora, TuneIn, BringGo navigation and Stitcher apps (compatible with iOS and Android devices, data streams via the phone's 3G connection)
- USB and auxiliary input
- Voice control via Siri eyes free integration

Servicing

As with all Holden models, Barina RS benefits from capped price servicing up to four standard scheduled services (as specified in the Service Warranty Booklet) for the first three years or 60,000kms, whichever comes first.

1.4L iTi petrol - \$185

Place of Manufacture

GM Korea, Bupyeong, South Korea