

In November 2002, Mitsubishi Motors Corporation (MMC) entered the rapidly growing subcompact segment with the launch of the New COLT, a next-generation subcompact car in which a superior balance of performance, fuel economy, and environmental compatibility is complemented by a class-eclipsing level of refinement.

## 1. Targets

When choosing an automobile or any other product, today's discerning consumers look for the added touch of refinement that elevates one particular brand or model above the rest of the class. The New COLT was developed accordingly; it meets the needs of discerning car-buyers by combining three vital attributes: class-eclipsing quality that's reflected in every aspect of the New COLT's look and feel; a superior balance of on-road performance characteristics; and great freedom of choice with regard to trim and equipment.

## 2. Features

- Quality

### (1) Exterior

A 'one-motion form' that flows smoothly from the front bumper to the end of trailing edge of the roof maximizes occupant space within modest exterior dimensions (a particularly important accomplishment in a subcompact car) and helps to give the New COLT a fresh, dynamic, and truly distinctive look. Four-bulb headlamps with deeply contoured reflectors behind clear lenses contribute to a front mask that embodies real refinement and functional aesthetics.

The overall front-end architecture embodies MMC's new design identity, which reflects MMC's confidence in the future. The New COLT is offered with a wide range of 10 body colours, six of which were newly created for this car.

### (2) Interior

Since the cabin is the part of the New COLT that users will most often see and touch, it was developed with an unrelenting focus on quality and comfort.



Consequently, the interior design combines contours and textures in a way that creates a refined, relaxing environment with a clean, contemporary look. Major instrumentation takes the form of a distinctive, easy-to-read three-dial meter cluster. The center panel has flush surfaces that give it a highly evolved look and feel, and it positions the audio, air-conditioning, and other controls where they are easiest to use. On each side of the cabin, the smooth lines of the instrument panel flow seamlessly into those of the door trim, creating a strong sense of continuity. There is a choice of two interior colour schemes: 'cool', which uses a blueish-grey key colour to evoke a high-tech, sporty image, and 'warm', which uses two-tone brown and beige to convey a sense of chic elegance.

### (3) Packaging

The New COLT offers plenty of interior space; a long wheelbase of 2,500 mm permits a cabin length of 1,705 mm (one of the greatest in the subcompact category), and shoulder room is ample at 1,340 mm. A column-mounted shift lever and a foot-operated parking brake further enhance legroom for front-seat occupants and permit easy movement from one side of the cabin to the other.

### (4) Handy storage spaces

In terms of convenience and ease of use, the New COLT eclipses the class. Two types of front seat – bench and separate – are available. In models with the bench seat, the passenger-side squab of the seat conceals a locker that has a capacity of 6.1 liters (sufficient for five 500 ml beverage bottles) and is ideal for storing handbags and other personal items out of sight. The squab automatically locks in the raised position, and its underside is fitted with hooks that can be used to secure luggage. In models with separate front seats, the space between the driver's seat and passenger seat is occupied by a multi-purpose tray, which incorporates movable, detachable cup holders and can be fitted with a choice of genuine Mitsubishi accessories including a center console and MiniDisc holders.

- Performance

(1) Newly developed MIVEC\* engines

For an optimal combination of high output, low fuel consumption, and low exhaust emissions, New COLT models are equipped with newly developed 1.3- and 1.5-liter MIVEC engines. Each new engine combines a short-stroke design, optimally shaped intake ports, and the variable intake-valve timing made possible by the MIVEC to achieve capable performance with minimal fuel consumption throughout the rev range.

\*Mitsubishi Innovative Valve timing Electronic Control system

(2) CVT\* control for smooth running

Each engine is mated to a CVT in which a minimal pulley-piston diameter, minimal oil-pump delivery, and optimal tuning of torque-converter lockup control ensure efficient transmission of engine power for enjoyable smooth running.

\*continuously variable transmission

(3) Class-topping performance

Integral control of the newly developed MIVEC engines and CVT helps to realize off-the-line acceleration and passing acceleration that are among the best in the class.

(4) Superior fuel consumption and emissions performance

The inherent efficiency of the MIVEC engines and CVT and the integral engine and CVT control are complemented by a high-efficiency air-conditioner unit and other measures aimed at maximizing fuel consumption during day-to-day urban driving. Also, measures to minimize the MIVEC engines' hydrocarbon emissions are complemented by a dual manifold catalytic converter employing a trimetal catalyst for further enhanced emission-reduction performance. As a result, all New COLT models comply with Ultra Low Emission Vehicle standards.

(5) Newly developed platform

A new platform with straight side rails was jointly developed by MMC and DaimlerChrysler for shared use. Minimal offsets in the frame layout enhance body rigidity and strength and contribute to superior collision safety. Also, the front side members each have an octagon section at the front end and figure-of-eight section at the rear end for efficient impact-energy absorption and an optimal frame-distortion mode. These frame-related measures are complemented by high-rigidity pressed doors and other strength-enhancing

measures. Consequently, the results of in-house tests with a 64 km/h offset frontal impact, a 55 km/h full-width frontal impact, and a 55 km/h side impact correspond to a Japan New Car Assessment Program rating of five stars.

(6) Newly developed suspension system

A newly developed MacPherson-strut suspension arrangement is employed at the front. A completely flat front crossmember maximizes mounting rigidity, thus helping to realize nimble handling. Plus, optimized spring positioning and strut damping characteristics, input-splitting upper insulators, and other measures ensure a smooth ride. An H-type torsion-beam suspension arrangement is employed at the rear. The space it occupies is minimized by location of the coil springs under the rear floor side members and by location of the shock absorbers as close as possible to the periphery of the body. The cabin is concomitantly spacious.

- Freedom of choice

With the New COLT, MMC has introduced a Customer Free Choice system that enables customers to select interior and exterior appearance and equipment as desired. Three basic packages are offered as a starting point for selections, and customers can modify them by combining exterior and interior colors, seat types, and equipment specifications while deleting items they do not require. As a result, customers can each have a New Colt that's exactly tailored to their individual tastes and lifestyles.

### 3. Major specifications

The major specifications of the New COLT are shown in the following table.

Specifications	Model	2WD	
		Mitsubishi UA-25A	Mitsubishi UA-27A
Overall length	(mm)	3,870	
Overall width	(mm)	1,680	
Overall height	(mm)	1,550	
Vehicle weight	(kg)	1,010	1,020
Minimum turning radius	(m)	4.7	
10-15-mode fuel consumption	(km/L)	20.0	18.0
Engine model		4G19 1.3 L MIVEC	4G15 1.5 L MIVEC
Valve mechanism and number of cylinders		DOHC; 16-valve; four cylinders	
Maximum output	(kW (PS)/min <sup>-1</sup> )	66 (90) /5,600	72 (98) /6,000
Maximum torque	(Nm (kg-m)/min <sup>-1</sup> )	121 (12.3) /4,250	132 (13.5) /4,250
Transmission		INVECS-III CVT (continuously variable transmission)	
Suspension	Front	MacPherson struts (with stabilizer)	
	Rear	Torsion beam (with stabilizer)	
Tires		175/65R14 · 185/55R15	

([A&B Product Dev. Project], Car Research & Dev. Office, MMC: T. Tanaka, M. Tanaka, Ishiwata)