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For Immediate Release

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### **2012 MAZDA CX-7**

*- Redefining the Crossover SUV Segment -*

The 2012 CX-7 is a highly-styled crossover SUV with the decided soul of a sports car. Produced entirely on a Mazda-derived platform architecture, the five-passenger CX-7 embodies an astute blend of sports car verve and SUV practicality, resulting in a fun-to-drive SUV that represents everything a Mazda should be, and running counter to what most people think a SUV should be capable of.

Along with many exterior and interior design enhancements for 2010, the five-passenger CX-7 received an all-new, naturally aspirated DOHC 16-valve MZR 2.5-liter four-cylinder engine. Available on *i* SV, *i* Sport and *i* Touring models, the inline four delivers 161 horsepower at 6,000 rpm and a maximum torque of 161 lb-ft at 3,500 rpm. It drives the front wheels through a lightweight, highly efficient five-speed sport-shift automatic transmission that provides exceptional performance while returning excellent fuel economy, EPA-rated at 20 city/28 highway. Also offered is Mazda's outstanding MZR 2.3L DISI turbocharged engine, producing 244 horsepower and 258 lb-ft torque, and transmission, which powers the upper trim levels. Tuning of this engine has focused on a unique blend of power, efficiency and drivability, all on regular unleaded fuel.

Highlights of the CX-7 include five-speed sport automatic transmission (*i* models) and six-speed Sport AT automatic transmission (*s* models), 17-, 18- and 19-inch alloy wheels, Multi-information Display (MID) with available rearview camera (standard on *i* Touring and *s* Grand Touring, and available on *s* Touring and *i* Sport), Mazda Advanced Keyless Entry and Start System, driver's seat-position memory, four-way power front passenger's seat, Bluetooth® hands-free phone and audio connectivity, Blind Spot Monitoring (BSM) system, a compact navigation system and rain-sensing windshield wipers.



## Two Dynamic Powerplants

Mazda's MZR 2.5-liter four-cylinder engine, which also can be found in the Mazda3 and Mazda6, is known for its excellent fuel economy and drivability. The 2.5-liter DOHC I4 delivers 161 horsepower at 6,000 rpm and offers a maximum torque of 161 lb-ft at 3,500 rpm. By coupling this engine to a light-weight, efficient, five-speed automatic transmission and utilizing a front-wheel-drive layout, this powertrain combination returns an EPA-rated fuel economy of 20 city/28 highway. This drivetrain combination is available on the *i* SV, *i* Sport and *i* Touring models, and only in front-wheel-drive configurations.

Advanced features utilized in the MZR-series engines include chain-driven dual overhead camshafts and four valves per cylinder for deep breathing at high revs and efficient torque delivery at lower ones. Counter-rotating balance shafts located in the oil pan provide a dramatic reduction in the vibration and harshness often found in large-displacement four-cylinder engines, and a forged steel crankshaft ensures excellent long-term durability.

Fuel is delivered to the intake ports by an electronically controlled sequential injection system, where the modular ignition coils are positioned directly above the spark plugs for increased efficiency and reduced maintenance and under-hood complexity.

Other lightweight items of note are an aluminum block and head, forged powder-metal connecting rods (to reduce reciprocating weight), and an injection-molded, nylon-reinforced-plastic intake manifold, which also provides smooth internal passages for more efficient air flow. Overall, the normally aspirated MZR 2.5-liter engine delivers excellent off-the-line and overtaking characteristics, and is a strong match for the CX-7's dynamics.

Carried over from the previous model years, the CX-7 also is powered by an award-winning MZR 2.3-liter DISI (Direct Injection Spark Ignition) turbo engine. Engineered to deliver high performance at all engine and road speeds, along with low exhaust emissions and good fuel economy, the MZR 2.3-liter DISI turbo-charged engine produces up to an enthusiastic 244 horsepower at 5,000 rpm and 258 lb-ft of torque at only 2,500 rpm. From 2,000 to 5,000 rpm, more than 90 percent of the engine's maximum torque is available, which makes for a smooth and comfortable driving experience. Unlike other high-performance turbo-charged engines, CX-7's turbo engine is tuned to run on regular fuel.



The MZR DISI engine uses its own specific aluminum block and head construction, including a specific forged crankshaft and connecting rods for long-lasting durability. A large air-to-air intercooler and direct fuel injection cools temperatures inside the cylinders and allows use of a relatively high compression ratio without fear of knocking or pinging – “detonation” in industry terms – that reduces durability.

Utilizing extremely high pressure in the fuel injection system – up to 3,000 psi – allows the fuel to be atomized as it is delivered to the cylinders. This shift in the gasoline’s state from liquid to vapor in the intake manifold as it is injected into the cylinder provides the substantial cooling effect. The low charge temperature permits the application of a 9.5:1 compression ratio, boosting low- and mid-range torque by approximately 10 percent over conventional turbo engines.

Low exhaust emissions are achieved by connecting the catalytic converter directly to the turbocharger to shorten the time required for the catalyst to reach its effective operating temperature. The 2012 CX-7 meets stringent federal Tier 2 Bin 5 and California LEV-II emissions standards.

A six-speed Sport AT automatic transmission also provides full manual control demanded by assertive drivers. Shifts remain crisp in keeping with CX-7’s sports car character.

Two drivelines are offered with the DISI turbo engine: Front-Wheel Drive or Mazda’s Active Torque-Split All-Wheel-Drive. The latter system uses a computer-controlled coupling integrated with the rear differential to deliver up to half the available torque to the rear wheels on demand. Sensors monitor engine information, individual wheel speeds, Anti-lock Brake System (ABS) operation and the CX-7’s standard Dynamic Stability Control (DSC) system to optimize torque distribution. Whether the driving conditions are dry and fast or slippery and moderately paced, exceptional stability is assured.

### **Refined Chassis for Enhanced Handling, Ride Quality**

A light, stiff unibody provides the sound foundation for CX-7’s smooth ride and agile handling. Computer-Aided-Engineering analysis was used to optimize this structure, delivering high torsional and bending rigidity with minimal weight.



CX-7's cabin is designed to provide a quiet, vibration-free environment. Thicker materials, reinforcements and weld bonds (spot welds supplemented by adhesives) in key areas all contribute to high torsional rigidity. Thick density insulation in both the engine compartment and interior cabin provide a quiet passenger environment. A-pillars fitted with large moldings reflect an effort to suppress cabin noise generated by side winds blowing across the exterior of the A-pillars.

In front, a perimeter frame mounted to the unibody through six rubber isolators supports the powertrain, the engine-speed-sensitive rack-and-pinion power steering and a low-friction MacPherson strut suspension system. The rear multi-link suspension is similarly mounted in its own subframe and consists of one trailing arm and two lateral locating members per side.

Front and rear dampers with large oil-flow openings are located between the wheel hub and the unibody to provide excellent motion control with minimal friction. Coil springs and anti-roll bars are an integral part of both suspension systems

All of these refinements assist in greater ride comfort, handling and stability, and combined with lower NVH throughout the vehicle mean CX-7 is nimble and agile.

The four-wheel ventilated disc brake system of the CX-7 integrates the Anti-lock Brake System (ABS), Traction Control System (TCS) and Dynamic Stability Control (DSC) functions. It also collaborates with the Active Torque Split All-Wheel Drive to prevent wheel spin on slippery surfaces.

### **Sleek Surface Expression**

The CX-7 displays an athletic style, with a stance that pronounces its performance capabilities. The exterior design features a larger five-point grille similar in appearance to those adopted recently on the MX-5 Miata and Mazda3. The front fascia clearly communicates the Mazda brand, and harmonizes it with the latest models in the line-up. Grand Touring models feature front fog lamp bezels on either side of the grille, emphasizing the strong visual flow. In addition, Grand Touring models feature distinctive details to the front grille, mirror housings and door handles to provide premium identity.

Wheel sizes include 17-inch, 18-inch and 19-inch aluminum alloys, depending on trim level.



The 66-degree windshield angle is sleeker than many sports cars, let-alone SUVs. Distinct character lines run through the A-pillars and along the edges of the hood to the front fascia. Prominent front fenders reveal a clear Mazda family identity.

The side profile sports an aggressively rising belt line, curved roof and prominent fender arches, producing Mazda's unique signature. A tapered cabin rests securely on the lower body's broad shoulders. From the rear, the detailed round motif tail lamp and large dual exhaust outlets (available on 2.3-liter DISI turbo models only; normally aspirated models incorporate a large single outlet) also emphasize the Zoom-Zoom sports car feature.

This distinctive overall exterior design is well balanced with the aerodynamics of the vehicle. While it provides outstanding aerodynamic performance, this exterior design does not compromise craftsmanship. Panel and component part-gaps are flush and tight. Wiper arms are configured to match the surrounding cowl design and minimize wind noise. Attention to detail makes this car what it is.

### **Interior Design, Quality Detailing**

The premium look on CX-7's exterior is continued on the inside of the vehicle with quality detailing that delivers a sporty yet highly refined cabin. The CX-7 interior features opulent materials placed at various locations around the cabin to give a premium look and feel. The rings on the side air conditioner vents are specially plated with anti-glare chrome. Front and rear door armrests incorporate soft pads for enhanced quality feel and add a high level of comfort. Piano black or metallic edges are added to the center panel to convey a sense of refinement.

A Multi-information Display (MID) is positioned in the center and to the right of the driver for easy reading. The MID offers navigation (standard on Grand Touring trim), trip computer functions, a rear-view camera (available on s Touring and i Sport, standard on i Touring and Grand Touring) and maintenance information. It is placed clearly in the driver's line of sight, requiring only a slight refocus from the road ahead to see directional instructions or check the radio station readout. There are two types of LCD screens available for the MID – a 3.5-inch monochrome dot matrix screen or a bright, high-resolution 4.1-inch color screen, which is standard on i Touring and i Grand Touring models, and available as an option on i Sport and s Touring models.



Advanced equipment is available on the 2012 CX-7 that provides even more functionality to the driver and passengers. CX-7 features Bluetooth® compatibility (all models except *i SV*), which provides a wireless connection for compatible mobile phones and portable audio devices. For non-compatible audio devices, an audio auxiliary jack also is available.

The front seats of Grand Touring models offer an available three-position memory function for the driver's seat and a four-way power adjustable passenger's seat.

A Blind Spot Monitoring (BSM) system is available to help the driver avoid collisions with other vehicles when changing lanes or merging with traffic. At 20 mph or more, radar sensors monitor an area that extends on each side of the vehicle. When a vehicle or other object enters the detection area, a warning lamp in the door mirror on the relevant side comes on to alert the driver. If the driver should then switch on the turn signal, the system will emit a warning sound and flash the lamp.

### **Standard Safety**

All CX-7 models are afforded the highest standards in safety, including six airbags (advanced dual front, front-seat mounted and full-length side curtain), anti-lock brakes (ABS), Electronic Brakeforce Distribution (EBD) with Brake Assist, Dynamic Stability Control (DSC) with a Traction Control System (TCS), tire pressure monitoring system (TPMS), "Triple-H" body construction, front and rear side-impact door beams, a foldaway brake pedal assembly, front and rear crumple zones, three-point safety belts for all seating positions, front seatbelt pretensioners with force limiters, as well as Lower Anchors and Tethers for Children (LATCH).

Also, all Mazda vehicles come with the Mazda Certified Roadside Assistance Program. Using either the toll-free number or free Mazda Assist app for iOS- and Android-operated mobile devices, owners and their family members can contact roadside assistance 24 hours a day, 365 days a year throughout the United States and Canada. In addition, the New Vehicle Limited Warranty includes a comprehensive three-year/36,000-mile warranty, which covers every part of the vehicle except those subject to normal wear, a five-year/60,000-mile powertrain warranty and a five-year/unlimited-mileage corrosion warranty.



Mazda North American Operations is headquartered in Irvine, Calif. and oversees the sales, marketing, parts and customer service support of [Mazda vehicles](#) in the United States, Canada and Mexico through nearly 900 dealers. Operations in Canada are managed by Mazda Canada, Inc., located in Ontario; and in Mexico by Mazda Motor de Mexico in Mexico City.

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