

# Advanced to the Core: Toyota Mirai Offers an Electrifying Ride

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**PLANO, Texas (Jan. 25, 2024)** – With its innovative engineering, sleek design and luxury interior loaded with advanced technology for an incredibly interactive drive, the 2024 Toyota Mirai consistently delivers an exciting ride. In its second generation, the Mirai provides an electrifying excitement, dynamic driving performance and has an EPA-estimated range rating of 402 miles on the XLE grade.

For 2024, the Toyota Mirai has added a few new upgrades that are sure to turn heads. A new Elemental Silver exterior color will now be available across grades. Mirai will also sport new Beyond Zero badging, highlighting Toyota’s commitment to reducing carbon emissions to move toward a carbon neutral future.

Designed to help protect drivers and their passengers, the Mirai will now come with Toyota Safety Sense 3.0.

### **FCEV: Making Electricity from Hydrogen**

In essence, the Mirai is a “plug-less” electric vehicle. Instead of having to charge a battery in a BEV which can take several hours, the Fuel Cell Electric Vehicle (FCEV) driver simply fills the tank with hydrogen, just as millions of drivers do every day with gas vehicles. With an FCEV, the fuel is non-toxic, compressed hydrogen gas rather than liquid gasoline.

An FCEV generates its own electricity onboard from hydrogen, with water as the only emission. A fuel cell system combines stored hydrogen with oxygen from the air, and a chemical reaction that produces electric current, and water, which drops out of a hidden vent pipe beneath the car.

Electricity generated by the Mirai’s fuel cell and the regenerative braking system is stored in a lithium-ion battery. Pressing the accelerator pedal yields immediate flow of electric power from the fuel cell and/or battery to the rear-mounted AC synchronous electric motor, which drives the rear wheels. An electric air compressor pressurizes the intake air, and a water-cooled intercooler reduces the temperature of the compressed air before it enters the fuel cell stack. A water-cooled oil cooler integrated with the air compressor helps maximize efficiency.

The intake system is designed to mitigate noise, which is virtually unnoticeable to occupants. By necessity, the intake air for the fuel cell must be purified. And so, an electrostatic air cleaner element captures ultra-fine particles (Particulate Matter 2.5), and a charcoal filter removes chemical substances.

The 2024 Toyota Mirai will include up to \$15,000 of complimentary hydrogen with a purchase or lease<sup>1</sup>.



### **Fuel Cells: Back to the Future**

Fuel cell technology pre-dates the automobile by half a century. In 1838, a Welsh physicist combined hydrogen and oxygen in the presence of an electrolyte and produced an electric current, though not enough to be useful. By the 1960s, the technology was being used in America's Gemini and Apollo spacecraft, where it provided crews with both electricity and water from stored hydrogen and oxygen.

Fuel cells had been studied for the automotive sector, but the technology only recently became practical and cost-effective. Toyota began its fuel cell development around the same time as the original Prius, and the Mirai shares technology from the company's hybrid program.

Toyota developed the solid-polymer electrolyte fuel cells used in the first- and second-generation Mirai models. To help foster FCEV proliferation, the company has released over 5,000 of its patents, royalty-free.

It is a scalable technology that can be made small enough to power a phone or large enough to power a building, or anything in between. For example, Toyota installed fuel cell powertrains in a fleet of class-8 semi-trucks that are rated for a maximum 80,000-pound load. These big rigs have been used for moving freight in and around the Ports of Los Angeles and Long Beach, California.

Hydrogen can be produced from a variety of domestic resources. The goal of the Hydrogen Council, for which Toyota is a founding member, is to use decarbonized hydrogen for transportation such as that produced from bio-resources or renewable electricity via electrolysis.



### **Luxury Car Chassis**

The Mirai is built on the premium Rear-Wheel Drive (RWD) GA-L platform, creating a mid-size luxury-sport sedan. The RWD configuration helps support an engaging driving experience that also allows for an additional hydrogen fuel tank over the first-generation car.

The high-strength GA-L platform with sophisticated multilink suspension provides the foundation for superb handling agility and an exceptionally smooth, quiet ride. Laser screw welding and adhesive structure bonding,

proven on many other Toyota and Lexus models, are among the construction techniques used to give the Mirai a truly premium feel on the road.

Active Cornering Assist engages the stability control to reduce understeer in certain cornering situations. Hill Start Assist Control, standard for both grades, allows smooth, safe takeoffs from stops on hills.

Electric power steering delivers quick response, with a tight 38.6-ft. turning circle for easy maneuverability. Both the XLE and Limited grades are equipped with 19 x 8-inch alloy wheels and 235/55R19 all-season tires. As an option, the XLE also offers optional 20-in. Super Chrome-finished metallic alloy wheels.

### **Electrifying Design, Slippery Aero**

The second-generation Mirai design conveys a sense of motion with a long-hood, sweeping roofline and short rear deck rendered in a practical four-door sedan package. The overall effect is that of a single metal form sculpted into a bold shape. The six exterior colors offered help the Mirai make a dramatic statement: Black, Oxygen White, Supersonic Red, Heavy Metal, Hydro Blue and Elemental Silver.

Wheelbase, height, length and width were all increased over the first-generation, front-wheel drive Mirai. Weight increased by just 176 lbs., yet weight distribution improved to nearly 50:50, and the center of gravity is lower to help enhance handling agility.

The second-generation Mirai introduced a new lighting signature for a Toyota sedan, with long, narrow headlights that sweep rearward into the fenders. Both Mirai models are equipped with auto-leveling bi-beam LED headlights, multi-LED front and rear turn signal indicators, Daytime Running Lights (DRL) and clearance lights. The LED side marker lamps are etched with the Mirai logo.

A thin LED taillight panel spans the car's width, tapered in the center, and creates a unique nighttime signature with three distinct gradation lines. Color-keyed heated power-folding outside mirrors feature turn signal indicators, defrosters, blind spot warning and puddle lights.

The Mirai's 0.29 coefficient of drag is the result not only of the body's shape, but a slew of bumper-to-bumper aero details, such as windshield wipers that retract to a lower position when not in use. The wipers show the kind of detail Toyota infused to raise comfort and convenience to a higher level in the Mirai: They feature direct-spray washer fluid arms, which, when in use, operate more quietly thanks to slower speed at the reversing point.



### **Tech and Comfort: Above and Beyond**

Both Mirai grades come equipped with a standard 12.3-inch multimedia touchscreen display that puts tech front and center for drivers and passengers alike.

The 12.3-inch display provides easy access for the driver or front passenger, and the multimedia, climate control and navigation content can be toggled from left and right. This display also relays imagery from the Panoramic View Monitor (standard on Limited and available for XLE), which provides an overhead 360-degree view in

drive and reverse.

Within the standard 12.3-inch gauge cluster, an ECO drive indicator helps the driver maximize fuel efficiency by providing acceleration guidance and assigning a score on economical driving. Hydrogen fuel level and remaining estimated range are always shown. For Limited grade drivers, a Color Head Up Display (HUD) with speedometer and navigation comes standard.

Powering devices also comes easy with a Qi-compatible smartphone wireless charging tray, one USB Media port, 3 USB Type C Charging ports, a 12V DC Socket in the center console.

The Mirai XLE grade features SoftTex®- trimmed and heated, power-adjustable front seats (8-way for driver, 4-way for passenger). The Limited steps up to perforated SoftTex®-trimmed heated and ventilated front and rear seats, including an 8-way power front passenger seat.

The Limited interior is available in dramatic two-tone color schemes: white and brown or black. LED ambient lighting includes eight driver-selectable colors and blue footwell illumination. The Limited grade's standard digital rear-view mirror with a HomeLink® transmitter can be switched from conventional to digital modes. The latter relays an expansive camera view from behind the vehicle and can also brighten the nighttime image.

Excellent craftsmanship and high tech give the Mirai comfort that's above the ordinary. The headliner, for example, integrates an infrared reflective layer on the roof-facing surface to block that part of the light spectrum, helping reduce heat buildup inside the cabin. That also reduces the electrical load on the air conditioning system. A layer of Thinsulate™ within the headliner also helps to block heat as well as provide additional sound damping. The side windows are UV-protected and water-repellent.

For rear seat passengers in the Limited, digital touch switches on the rear of the center console operate the audio and climate controls and the available panorama roof's power sunshade. The Limited features available manual sunshades for the side windows and a power shade for the rear window.

### **Toyota Audio Multimedia**

The 2024 Toyota Mirai is equipped with the Toyota Audio Multimedia system designed and engineered by Toyota's Texas-based Connected Technologies team. Mirai drivers will also have the opportunity to access a wide range of enhanced connectivity and convenience features, including Over-the-Air (OTA) updates.

Users can interact with the system through intuitive touch and voice activation controls. With the available Drive Connect\*, drivers and passengers have access to Intelligent Assistant, Cloud Navigation and Destination Assist (1-year trial included). With Intelligent Assistant, simple phrases like "Hey Toyota" awaken the system for voice-activated commands to search for directions, find Points of Interest (POI), adjust audio controls, change the cabin temperatures and more.

Cloud Navigation is also a feature of the latest Toyota Audio Multimedia system. This available onboard navigation solution utilizes the cloud to download the latest available map, traffic and routing information. To ensure users have the most up-to-date search capabilities, POI search is provided by Google Points-of-Interest data. Destination Assist also gives access to 24/7 live agent assistance to locate the next destination.

Toyota Audio Multimedia also allows for dual Bluetooth® phone connectivity, with support for standard wireless Apple CarPlay® and Android Auto™ compatibility. With further connectivity, the Mirai includes a Wi-Fi Connect<sup>2</sup> 1-month trial that offers 4G connectivity for up to five devices – turning the Mirai into an AT&T Hotspot. Adding to the already robust offering of audio playback ability with HD Radio®, USB data, and a SiriusXM® 3-month trial subscription – Wi-Fi Connect also enables the new Integrated Streaming feature,



providing customers the ability to link their separate Apple Music® and Amazon Music subscriptions to the vehicle for onboard control.

### **Connected Services & Owner Benefits**

Each Mirai offers a host of additional available Connected Services<sup>2</sup>. Safety Connect<sup>2</sup> includes an Emergency Assistance Button (SOS), 24/7 Enhanced Roadside Assistance, Automatic Collision Notification and Stolen Vehicle Locator with up to a 10-year trial. Service Connect<sup>2</sup> gives drivers the ability to receive Vehicle Health Reports, Maintenance Alerts and reminders, also with up to a 10-year trial.

With the Toyota app, users can stay connected to their Mirai with the 1-year trial of Remote Connect<sup>2</sup> service. Digital Key<sup>3</sup> compatibility is now standard on Limited grades and available on XLE grades with an Advanced Technology Package. Digital Key allows for driver access via the Toyota app to unlock the doors and trunk or start the vehicle using a smartphone as a key. Digital Key also provides the ability to share keys with friends and family. Users can also check vehicle status, receive reminder notifications and set Guest Driver Alerts.

In addition to standard Toyota warranties benefits, all 2024 Mirai owners will receive the following:

- Extended ToyotaCare for three years or 35,000 miles (whichever comes first)
- Safety Connect Enhanced Roadside Assistance for up to 10 years, including expedited towing service and trip interruption reimbursement
- Dedicated Mirai 24/7 phone support for three years
- Complimentary hydrogen fuel of \$15,000, or up to three years for new Mirai leases or up to six years for new Mirai purchases (whichever comes first)
- Eight-year/100,000-mile FCEV warranty on key fuel cell electric vehicle components
- Ten-year/150,000-mile hybrid battery warranty on key hybrid components
- Complimentary rental experience for up to 21 days during the first three years of ownership
- Eligible for HOV carpool sticker

### **Safety and Convenience**

The 2024 Mirai now comes with the robust Toyota Safety Sense 3.0 (TSS 3.0). This safety suite includes:

- **Pre-Collision System with Pedestrian Detection:** Pre-Collision System with Pedestrian Detection (PCS w/PD) is designed to help detect a vehicle, pedestrian, bicyclist or motorcyclist and provide an audio/visual forward collision warning under certain circumstances. If you don't react, the system is designed to provide automatic emergency braking.
- **Full-Speed Range Dynamic Radar Cruise Control:** Intended for highway use, Dynamic Radar Cruise Control (DRCC) is an adaptive cruise control system that is designed to be set at speeds above 20 mph and uses vehicle-to-vehicle distance control to help maintain a preset distance from the vehicle ahead of you.
- **Lane Departure Alert with Steering Assist:** When white/yellow lane markings or certain road edge boundary lines are detected at speeds above 30 mph, Lane Departure Alert with Steering Assist (LDA w/SA) is designed to issue an audio/visual lane departure warning if an inadvertent lane departure is detected. If the driver does not take corrective action, the system is also designed to provide gentle corrective steering for lane keeping assistance.
- **Lane Tracing Assist:** When Dynamic Radar Cruise Control (DRCC) is enabled and lane markers are detected, Lane Tracing Assist (LTA) uses the lines on the road and/or preceding vehicles to provide active driving assistance and help keep the vehicle centered in its lane.
- **Road Sign Assist:** Using an intelligent camera, Road Sign Assist (RSA) is designed to detect speed limit signs, stop signs, Do Not Enter signs, yield signs and certain warning signs, and display an icon of the sign on the Multi-Information Display (MID).

- **Automatic High Beams:** The Automatic High Beams (AHB) are designed to help you see more clearly at night at speeds above 21 mph. The AHB system is designed to detect the headlights of oncoming vehicles and taillights of preceding vehicles, then automatically toggle between high and low beams accordingly.
- **Proactive Driving Assist:** Proactive Driving Assist (PDA) uses the vehicle's camera and radar, when system operating conditions are met, to provide gentle braking and/or steering to support driving tasks such as distance control between your vehicle and a preceding vehicle, pedestrian, or bicyclist. PDA can also provide gentle braking into curves.

Additional standard features include:

- 8 airbags
- Star Safety System™
- Traffic Jam Assist<sup>4</sup>
- Blind Spot Monitor with Rear Cross Traffic Alert
- Tire Pressure Monitor System (TPMS)
- Tire repair kit
- Back-up camera

For Limited grade drivers Front and Rear Parking Assist with Braking come standard. On the XLE grade, this feature comes available with the Advanced Technology Package. Advanced Park comes standard on the Limited grade.

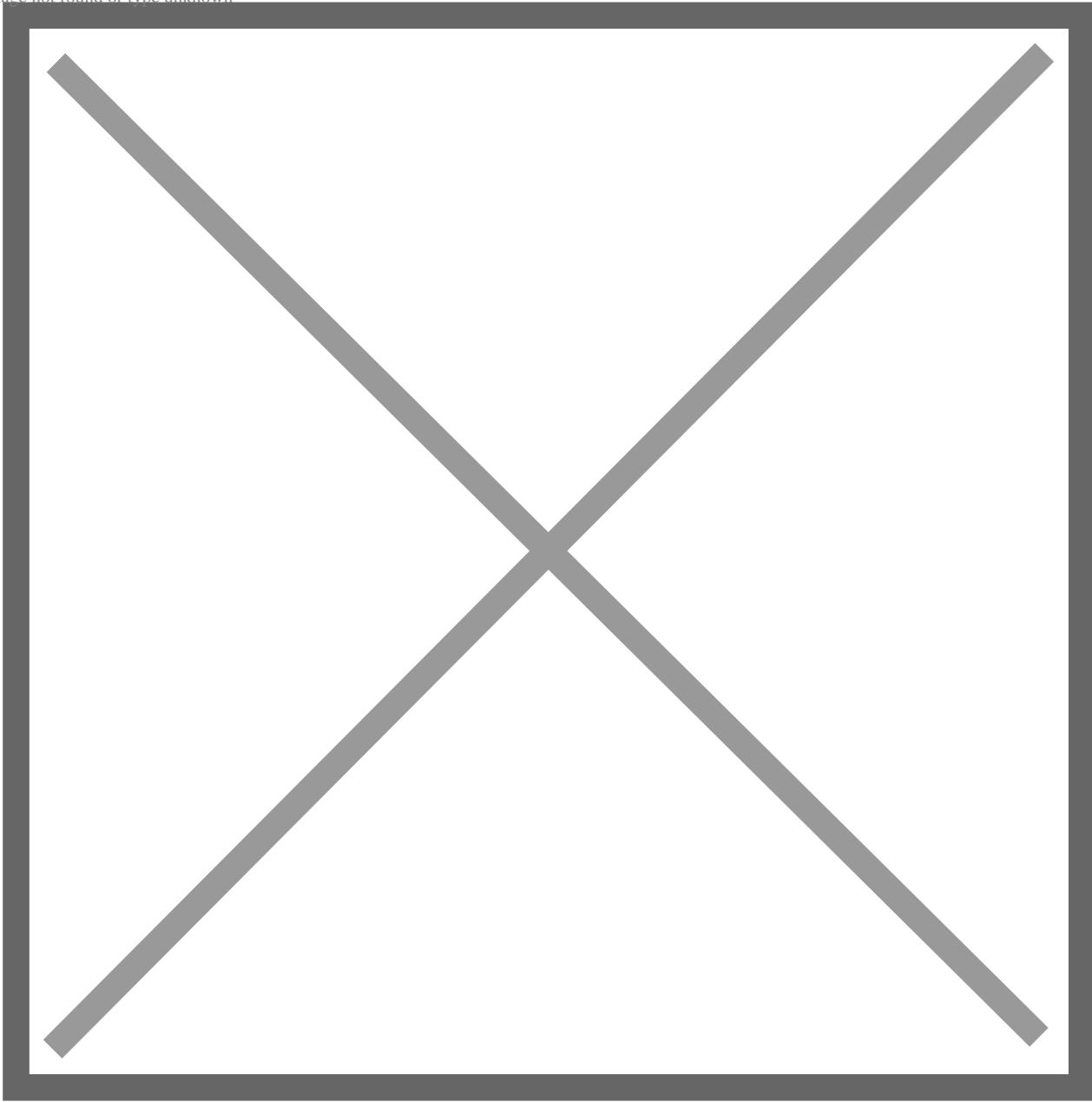
### **Making the Grade**

The Mirai XLE comes well equipped with standard SofTex®-trimmed seating featuring heated, 8-way power driver and 4-way power passenger seats; dual-zone automatic climate control with remote feature; Smart Key System remote keyless entry system with trunk-release, panic button and remote illuminated entry; auto-leveling LED headlamps; LED front interior reading lights; Toyota Audio Multimedia system with JBL® Premium Audio including 14 JBL speakers and navigation; Qi wireless charger; power tilt/telescoping steering wheel; auto-dimming rearview mirror, and electronic parking brake.

As an option, the XLE offers the Advanced Technology Package that includes Panoramic View Monitor, Front and Rear Parking Assist with Automated Braking and Front Seat Foot Illumination and Digital Key compatibility.

The Mirai Limited grade makes those features standard, along with heated and ventilated front and rear seating, three-zone automatic climate control (two-zone in front, one-zone in rear with separate digital control panel), ambient lighting and a panoramic moonroof, which features fixed glass panels and a power sunshade, and Advanced Park.

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### **Toyota Limited Warranty**

An extended ToyotaCare maintenance plan, good for three years/35,000 miles, whichever comes first, is included with the vehicle. Other owner benefits include roadside assistance for three years (unlimited miles), an eight-year/100,000-mile FCEV warranty on key fuel cell electric vehicle components, and a complimentary rental experience for up to 21 days during the first three years of ownership.

<sup>1</sup>*Customers who lease a 2023 Mirai by March 31, 2024 will receive complimentary fuel for three years or \$15,000, whichever comes first. Customers who purchase a 2023 Mirai by March 31, 2024 will receive complimentary fuel for six years or \$15,000, whichever comes first.*

<sup>2</sup>*All Connected Services require an active trial or subscription and are 4G network dependent.*

<sup>3</sup>*Digital Key requires an active Remote Connect trial or subscription.*

<sup>4</sup>*Active Drive Connect trial or subscription is required. 4G network dependent.*

<sup>5</sup>*MSRP excludes Toyota Dealer Processing and Handling (DPH) Fee of \$1,025 (DPH subject to change).*