



**TOYOTA**

Your Toyota Collision & Mechanical Repair Resource



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Taking technology to new levels

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# THERE'S NO COMPROMISE ON QUALITY, RELIABILITY, FIT & VALUE

## TOYOTA GENUINE PARTS—ASK THE EXPERTS

As an automotive repair professional, you know the benefits of choosing Toyota Genuine Parts. But there is a myth that aftermarket parts deliver the same value for less cost. Today, the quality, reliability, function and fit of Toyota Genuine Parts are available at a competitive price. These benefits work together to create exceptional value, help you hone your bottom line and give your customers the peace-of-mind that their Toyota is still a Toyota.



### A/C COMPRESSOR—THE HEART OF THE A/C SYSTEM

Toyota Genuine A/C Compressors offer legendary Toyota quality, reliability and durability. They are designed for a precise fit and built to Toyota's exacting standards for quality. With high output and quiet, efficient performance, they give you and your customer the perfect blend of benefits. No more worry about ancillary parts—all parts are assembled for easy installation.

**TOYOTA GENUINE A/C COMPRESSORS  
STARTING AT \$312.00 MSRP\***

### BRAKE CALIPERS—UNCOMPROMISING FITMENT

Toyota Genuine Brake Calipers provide uncompromising fitment. They are meticulously engineered and tested by Toyota to match the exact size of the original caliper and to perform optimally with Toyota's braking system. They are designed to fit over the rotor to best accommodate the caliper mount bracket.

**TOYOTA GENUINE BRAKE CALIPERS  
STARTING AT \$124.09 MSRP\***



"I founded Toy Doctor 27 years ago. Using Toyota Genuine Parts on our Toyota repairs has allowed us to stand behind our work and our business successfully and confidently through the good times and the bad. We choose genuine parts. The quality of these parts outweighs any budget concerns the customer may have. The fit and value of Original Genuine Toyota Parts allow us to repair the vehicle back to original standards and fit our goal to Fix It Right the First Time every time! There is just no substitute!"

—Artie Kosack, Founder, Owner & President, Toy Doctor – Denver, CO



“We work on a lot of older Toyotas—many with over 250K miles on them—and they still have the original Toyota parts! I know that when I use a Toyota Genuine Part, it’s going to fit and it’s going to last. No planned obsolescence. When it comes to starters, life expectancy is critical. I don’t want to use an aftermarket starter and have to warranty it. With a Toyota Genuine Starter, I save time, money and my shop’s excellent reputation.”

—Michael Dowsett, President of Operations, NW Team Yota – La Center, WA



**STARTER—METICULOUSLY TESTED FOR OPTIMAL PRECISION**

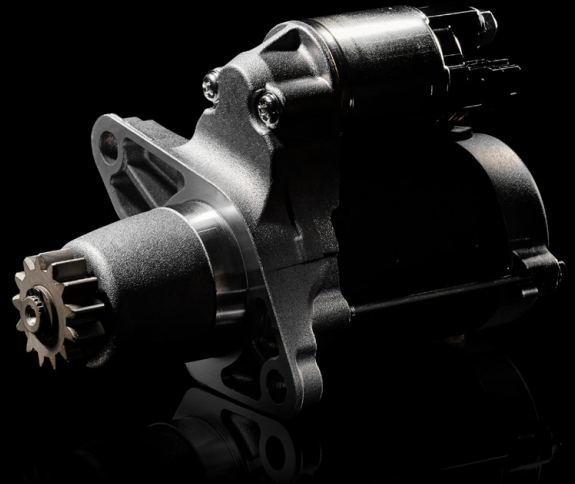
Toyota Genuine Starters adhere to the same requirements as the original part, providing the trouble-free performance you would expect from Toyota. They’re meticulously tested by Toyota engineers to provide Toyota owners with dependable starts, mile-after-mile.

**Toyota Genuine Starters**  
**STARTING AT \$141.66 MSRP\***

**THROTTLE BODY ASSEMBLY—PRECISE PERFORMANCE MEETS UNMATCHED QUALITY**

Toyota Genuine Throttle Body Assemblies are designed to control the specific amount of air entering a Toyota engine and match Toyota’s exacting requirements for fit, form and function. When it comes to engine performance, don’t settle—choose a Toyota Genuine Throttle Body Assembly.

**TOYOTA GENUINE THROTTLE BODY ASSEMBLY**  
**STARTING AT \$295.43 MSRP\***



**GENUINE QUALITY AT A COMPETITIVE PRICE**

Toyota Genuine Parts give you the perfect blend of benefits to help increase your shop efficiency while ensuring a quality repair. Why settle when you can install the best at a competitive price, maintain a healthy bottom line and ensure customer confidence? Contact your Toyota dealer today for more information and current pricing reductions. 📞

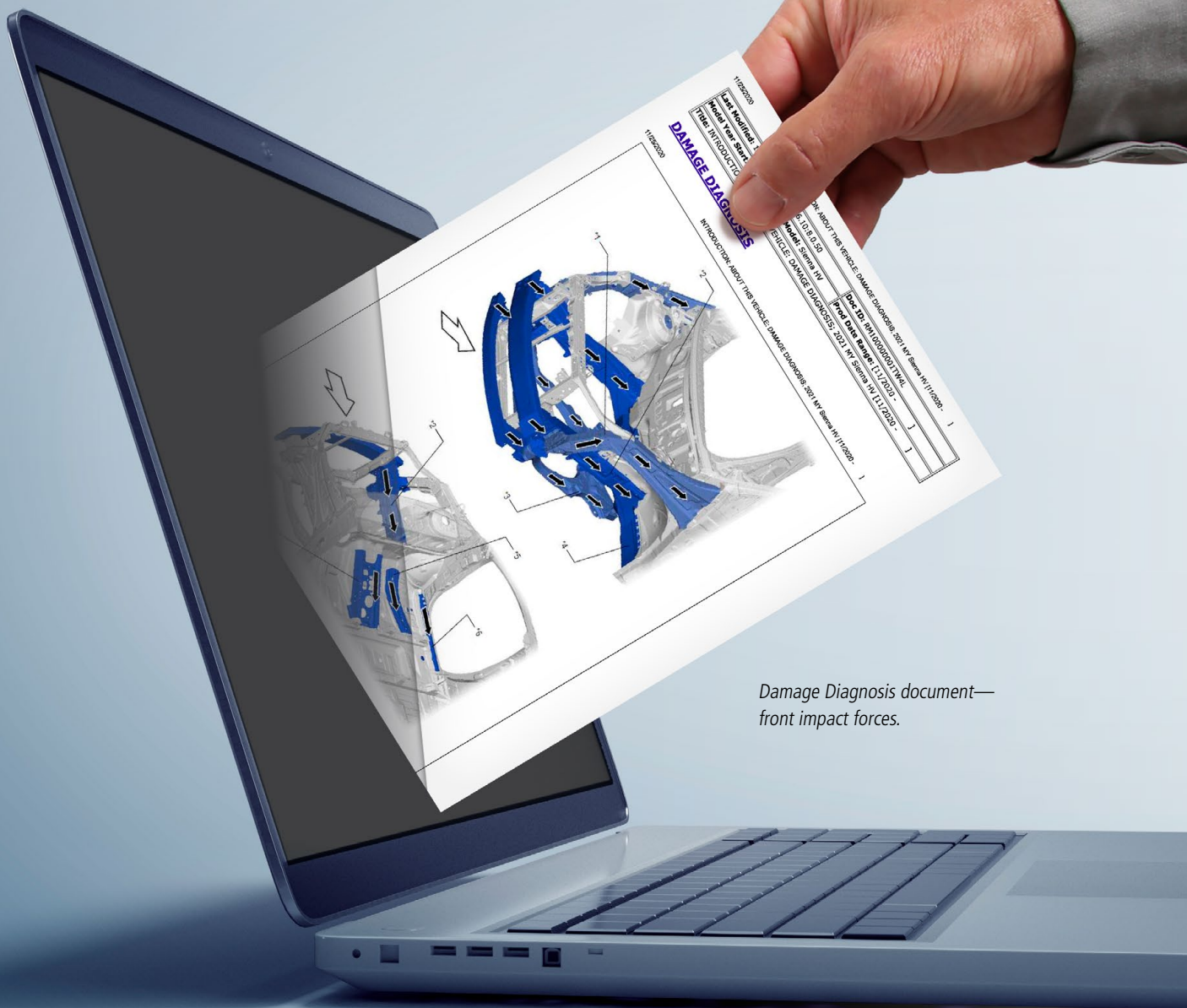
*\*Prices may vary according to model; prices subject to change; check with your Toyota Dealer for the most current retail and commercial pricing.*

# HOW TO NAVIGATE TIS



## HOW TO LOG INTO TIS

TIS is an invaluable tool that's there to help you repair Toyota and Lexus vehicles when they come into your facility. To access TIS, go to [techinfo.toyota.com](http://techinfo.toyota.com). To create an account, click **Subscribe** and choose the option that's best for you.



*Damage Diagnosis document—  
front impact forces.*

## FIX IT RIGHT THE FIRST TIME

Technical Information System (TIS) is Toyota's service and collision support source for access to the latest Toyota product and repair information. This web-based database includes service bulletins, tech tips, repair manuals, collision repair manuals, electrical wiring diagrams, new car features, mechanical and collision procedures and factory training information. In this article, we'll show you how to find what you need quickly and efficiently.

## TIS BASICS—BE A DETECTIVE

First and foremost, you need a TIS subscription and an account. Once you have your account, sign in and then search for the vehicle that is in your shop. For this story, we'll focus on the 2021 Sienna HV.

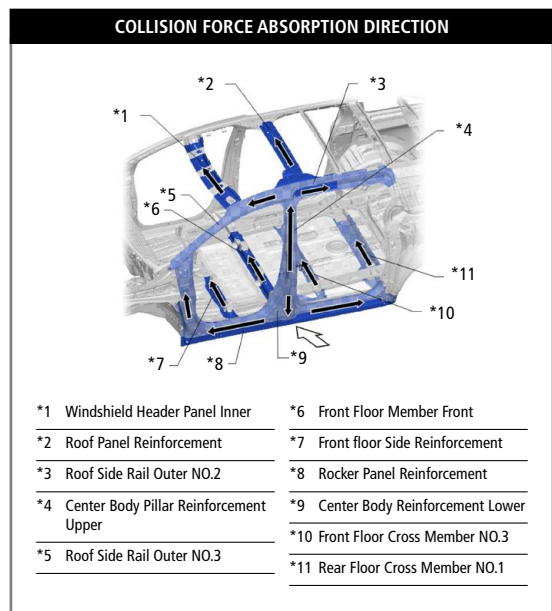
Three of the most used manuals in TIS are the New Car Features (NCF), the Repair Manual (RM) and the Collision Repair Manual (CR). To access the appropriate manual, log into TIS, enter the model and year and click on NCF, RM or CR.

Before you start repairs, a good place to search is the Introduction Section for that vehicle. There you can see what documents exist, such as precautions for working on the airbag system or the blind spot monitor, welding information or anything else that is appropriate for that vehicle.

Another helpful document is the Damage Diagnosis document. Here's how to find it:

1. Go to the appropriate model and year.
  2. Find the Collision Repair Manual tab.
  3. Select Damage Diagnosis document, which shows how the forces of a collision are transferred throughout the vehicle, helping you know where to look for potential damage:
- The Damage Diagnosis document also details a variety of collision scenarios—for example, a head-on collision, rear-end collision or side impact. Each diagram outlines how collision forces (white arrows) are diverted in an accident (black arrows). For example, in a front impact you can see how the forces are diverted along the front fender apron, front side members, front suspension subframe and all the way to the floor side inner members. The floor side inner members can be easily overlooked during an inspection, but they may also need repair. Seeing where crush zones are located and how they're designed to give makes it easier to determine which components need to be replaced or repaired.

As a rule of thumb, whenever a location is damaged or if you have to replace parts, you should always check the Repair Manual for the appropriate removal, inspection and installation procedures.



## IT'S ALL ABOUT EVOLUTION

Another benefit of using TIS is that it is constantly expanding and evolving. As new information is discovered, it's entered on TIS. That way, you might discover that a new process supersedes a process you had used in the past.

One more recommendation for each vehicle you're working on: Take notes on the repairs. Document things you learned or that challenged you during the repair. That way, you can refer back to your notes when you encounter a similar issue. And always check TIS when you start working on a new project, as information is constantly being updated and there may be new procedures. 📄

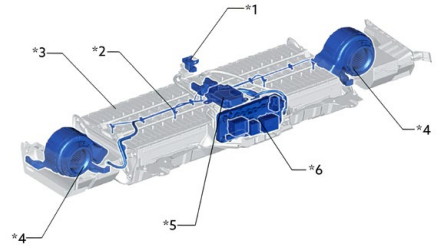


# ALL-NEW 2021 TOYOTA SIENNA

TAKING TECHNOLOGY TO NEW LEVELS



The fourth generation Sienna was designed and engineered in the U.S., and has an array of new technology that raises the bar in its segment for style, safety, comfort, versatility and fuel economy.



*1	Service Plug Grip	*2	HV Battery Thermistor
*3	HV Battery Modules	*4	Battery Cooling Blower Assembly
*5	Battery Smart Unit (Battery Voltage Sensor)	*6	Hybrid Battery Junction Block Assembly

With focus on space and style, the all-new 2021 Toyota Sienna redefines the minivan segment to support a wider array of life stages and activities.

The fourth generation Sienna was designed and assembled in the U.S., and has an array of new technology that raises the bar in its segment for style, safety, comfort, versatility and fuel economy. The 2021 Sienna comes in trim levels—LE, XLE, XSE, Limited and Platinum—and content varies greatly by trim. When one comes into your facility, the first thing you should do is confirm the trim level, but there are also some additional key features you need to be aware of.

### BUILT ON A PROVEN PLATFORM

The 2021 Sienna is built on Toyota's Global Platform K (TNGA-K), which is shared with the Camry, Avalon, Venza and RAV4. The TNGA-K platform owes its inherent strength to the extensive use of hot-stamped sheet steel, ultra-high tensile strength steel and high tensile strength steel, as well as the extensive use of aluminum components to reduce weight and ensure a rigid body structure.

Case in point: The sliding doors feature aluminum construction to keep the weight down. As you know, repairing an aluminum door panel is different than a repair done on a steel door. You have to consider the size and the location of the damage, as well as the accessibility to the damage before proceeding.

When manufacturing the Sienna, the factory uses Laser Pinning Welding (LPW) on various parts of the chassis to

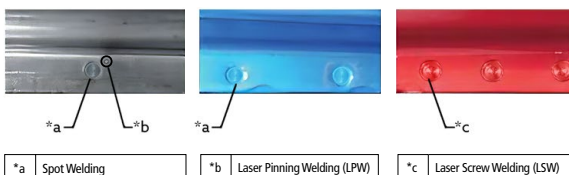
bond the first and second steel sheets from the outside (the outer panel and reinforcement). LPW is always used near spot welding. The outer appearance of LPW is similar to Laser Screw Welding—LPW can be differentiated from Laser Screw Welding because the weld has a smaller diameter.

For LPW repairs, use small diameter plug welding and follow the instructions in the body repair manual. Refer to the "Precautions for Welding" Document ID: RM10000001TW4D for more information.

### HYBRID PLATFORM

The 2021 Sienna is a Super Ultra Low Emission Vehicle (SULEV) with the sealed Nickel-Metal Hydride (Ni-MH) hybrid battery located under the seats.

Sienna comes in both front-wheel drive and available Electronic On-Demand All-Wheel Drive. Instead of a traditional transfer case and driveshaft to deliver power to the rear wheels, Sienna employs a separate rear-mounted electric motor that powers the rear wheels when needed. It works seamlessly, distributing up to 80 percent of driving force to the rear wheels, which helps suppress front wheel slip during off-the-line starts. This system also makes repairs easier, as you don't have to deal with a transfer case or rear driveshaft.



\*a Spot Welding

\*b Laser Pinning Welding (LPW)

\*c Laser Screw Welding (LSW)





## KNOW THE SIENNA BEFORE STARTING A REPAIR

Be sure to follow the recommended procedures based on the parts you're working with to ensure you return a vehicle that looks perfect, functions as new and maintains Toyota safety standards.



### AVAILABLE NEW FEATURES

The new Sienna abounds with technological features to help make driving safer and more convenient. The challenge for you is that when one comes in for collision repairs, you must ensure those features are working "as new" when you deliver the repaired vehicle. That's why we recommend checking any of the systems that may be affected by an accident before you start work and log any issues you find. Then re-check the systems again once repairs are complete.



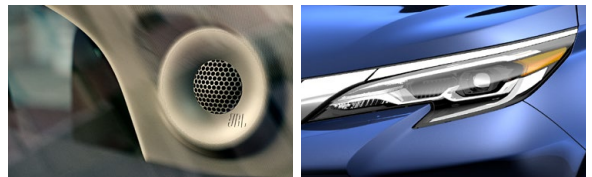
New features include:

- Power tilt and telescoping steering column with heated steering wheel (Platinum)
- Digital rear-view mirror—it functions as a standard mirror until rear-seat passengers or cargo block the view; then, at the touch of a switch, the obstructions disappear, replaced by the camera's image from behind the vehicle (optional on limited and Platinum)
- Hands-free kick-open and close dual power sliding side doors<sup>1</sup> (standard on XLE, XSE, Limited and Platinum)
- Hands-free kick-open rear liftgate<sup>1</sup> (standard on XLE, XSE, Limited and Platinum)—installation of a tow hitch receiver or other accessories located near the rear bumper may require disabling or removing the kick sensor
- 10-inch color head-up display that is controlled via voice recognition and steering wheel switch (Platinum trim level)
- Optional 1,500-watt inverter with 120V AC outlet<sup>2</sup>

### TOYOTA SAFETY SENSE™ 2.0<sup>3</sup> FEATURES

All 2021 Sienna trim levels offer a full suite of Toyota Safety Sense 2.0 features, including:

- Pre-Collision System with Low-Light Vehicle and Pedestrian Detection and Bicycle Detection (PCS)<sup>4</sup>
- Full-Speed Range Dynamic Radar Cruise Control (DRCC)<sup>5</sup>
- Lane Departure Alert with Steering Assist (LDA w/SA)<sup>6</sup>
- Automatic High Beams (AHB)<sup>7</sup>
- Lane Tracing Assist (LTA)<sup>8</sup>
- Road Sign Assist (RSA)<sup>9</sup>



Other Advanced Safety Features

- Blind Spot Monitor (BSM)<sup>10</sup> with Rear Cross-Traffic Alert (RCTA)<sup>11</sup>
- Hill Start Assist Control (HAC)<sup>12</sup>
- 10 airbags<sup>13</sup>—includes driver and front passenger Advanced Airbag System, driver, front passenger and second-row outboard seat-mounted side airbags, driver knee airbag, front passenger seat-cushion airbag and side curtain airbags
- XLE, XSE, Limited and Platinum trim levels add Front and Rear Parking Assist with Automated Braking (PA w/AB)<sup>14</sup>

To further aid outward visibility, the Platinum trim comes standard with the Bird's Eye View Camera<sup>15</sup> with Perimeter Scan and overhead 360-degree view. You need to be aware of all these cameras, as they require precise alignment and calibration after a collision. 🐦

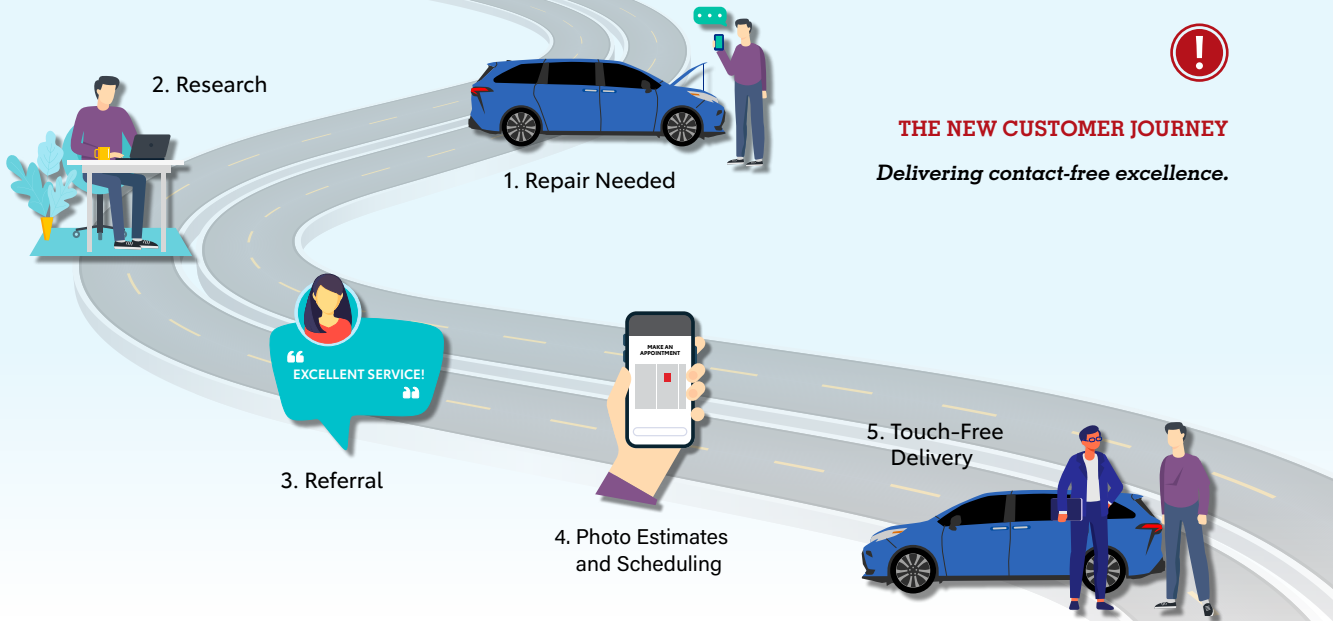
All story footnotes can be found on page 13 or [CLICK HERE](#).





## THE NEW CUSTOMER JOURNEY

*Delivering contact-free excellence.*



# AUTOMOTIVE REPAIR RECOVERY

## RESILIENCE IN A TIME OF CHANGE



The COVID-19 pandemic—and all the lifestyle changes that have come with it—has accelerated change in the automotive industry, including collision repair.

Companies are enabling employees to work remotely and distance learning is required in K-12 public schools. Occupancy rates for office buildings are down 30% nationwide.<sup>1</sup> These shifts have contributed to a 14% drop in national miles driven.<sup>2</sup>

As more customers move to digital interactions and vehicle technology rapidly evolves, it's important to consider how your shop can adapt to new ways of doing business. Advanced Driver-Assistance Systems (ADAS) continue to improve the driver's ability to react to dangers on the road, and claim frequency for all coverages has already been slowing. Now, with fewer vehicles on the road, vehicle repair counts may be down between 15-20% in 2021.<sup>1</sup>

### SUCCESS IN OUR NEW BUSINESS ENVIRONMENT

Parts manufacturers, distributors and auto repair shops have been classed as an essential service. Many shops have implemented parts procurement and logistics technologies to minimize the need for face-to-face transactions with suppliers. Shops also use technology to provide their customers with a quality, touch-free service experience. Review *Collision Pros* Issue 2 article, "[New Technologies and Best Practices—Contact Free Customer Experience](#)", for technical solutions to new challenges in your shop.

### SHIFTING CONSUMER BEHAVIOR DRIVES BUSINESS CHANGE

Today, more and more consumers are finding an automotive repair facility via an online search. Therefore, it's critical for your shop to have a solid online presence with active social media posts and positive Yelp reviews.

If you haven't already, now is the time to establish and build your social media presence. In past issues of *Collision Pros*, you'll find a series of articles that guide you through the basics. From managing your Yelp presence and setting up a Facebook page to managing reviews and creating quality posts, these articles can

help you build a following, create advocacy and build business:

- [THE POWER OF SOCIAL MEDIA: PART 1](#)
- [THE POWER OF SOCIAL MEDIA: PART 2](#)
- [READY! SET! ENGAGE! THE POWER OF SOCIAL MEDIA: PART 3](#)

Social media is the foundation of your online presence, but your ability to provide quick, accurate and competitive estimates is essential. At this year's MSO Symposium, a recent survey indicated that 25% of respondents identified estimated price as the most important factor in choosing a repair facility.<sup>3</sup> While the rise in photo estimates may simplify the process for the customer, there are some challenges in ensuring accuracy and customer satisfaction. The *Collision Pros* article "[Photo Estimates—Tips for Working with Customers](#)" provides guidance in helping your customers with photo estimates.

### EMBRACING CHANGE

Pivoting quickly has positioned repair shops to reap the opportunities. As you adjust your business, in the post-COVID world, customers may remain cautious and seek the safe, sanitary and reliable service that your shop provides. 📞

All story footnotes can be found on page 13 or [CLICK HERE](#).

# THE POWER OF INFORMATION

## USING TECHSTREAM TO PERFORM BOTH PRE- AND POST-REPAIR HEALTH CHECKS

How many times have you heard this from a customer *after* a repair, “Well, it worked fine when I brought it in”?

The reality is, that type of customer response can have a major impact on customer satisfaction, which can negatively affect repeat and referral business. Beyond that, comebacks can be costly, especially if the feature was not working when the vehicle arrived at your facility. It’s all about managing customer expectations, because whether they’re actually right or wrong, the customer is always right.

This article will focus on ways you can be prepared with proper pre- and post-repair planning.

### KEEP A RECORD

When a vehicle arrives at your facility, you should document its current condition, not just as it relates to the collision damage, but also how the vehicle is functioning in general.

In that regard, the Toyota Techstream Scan Tool is your best friend. When you hook up the Techstream you get an instant “Health Check” diagnostic scan that allows you to “see” how the vehicle has been damaged as a result of a collision that could affect the various electrical systems. The scan will also show whatever diagnostic trouble codes (DTCs) that may have been set and need to be addressed while the vehicle is in your care.

The vehicle’s electrical systems are designed to control and communicate with the various engine, drivetrain, electrical, navigation, audio, handling and safety systems. And components from these various systems could be damaged in a collision and may not necessarily cause an MIL.

The reason to use the Techstream Scan Tool is that it’s specifically designed to provide you with the factory service and diagnostic information for most 1996 and later Toyota and Lexus vehicles. When you first purchase Techstream, you get a one-year subscription to Technical Information System (TIS).

### GO BEYOND TECHSTREAM

After you perform a Health Check, it’s a good idea to give the vehicle a quick once-over, checking various items including:

- Power windows—confirm they all go up and down without binding
- Audio system—write down the customer pre-sets if they will be lost during repairs; check to make sure all the audio functions and speakers are working
- Seat—check that power seats are working and record customer’s preferred settings
- Power door locks
- Keyless entry/Smart key

If the Health Check or your personal review finds any issues, be sure to note them in the file and contact the customer so you can share what you found. This helps make the customer aware of any preexisting conditions, the repairs that need to take place and more importantly, why those repairs need to take place.

This can also come into play if you have to interface with the insurance company to justify the work and calibration that needs to be done to ensure the vehicle is properly repaired.



CLICK [HERE](#) TO LEARN ABOUT THE ADVANTAGES OF TECHSTREAM LITE OVER AFTERMARKET SCAN TOOLS.

#### POST-REPAIR SCAN

After all of the work is done, conduct a post-repair scan to confirm that there are no "health" issues or DTCs on the repaired vehicle, and that all the Advanced Driver Assistance Systems are in perfect operating condition. This provides your customers with peace of mind, and it's another way to demonstrate the professionalism of your facility. 📄







# IT'S GOOD TO BE GENUINE



GENUINE • QUALITY • RELIABILITY • FIT • VALUE

Toyota Genuine Mass Air Flow Sensors are designed to provide the most accurate rate of air flow entering a fuel-injected internal combustion engine. They are meticulously engineered and tested to match Toyota's requirements for emissions, fuel economy, drivability and performance. They offer the precision, durability and trusted quality you expect from Toyota Genuine Parts.

EXCLUSIVELY FROM YOUR TOYOTA DEALER



Wholesale Parts

» [toyotapartsandservice.com](http://toyotapartsandservice.com)

For complete details about Toyota's warranties, please refer to the applicable Warranty & Maintenance Guide or see your Toyota Dealer.





**DISCLAIMER:** THIS TRAINING IS JUST ONE RESOURCE AVAILABLE TO DEALERS AND THEIR ASSOCIATES. COLLISION REPAIR CENTERS ARE FREE TO USE OR NOT USE THIS RESOURCE. OF COURSE, OUR DEALERS ARE RESPONSIBLE FOR ALL EMPLOYMENT DECISIONS RELATING TO THEIR EMPLOYEES INCLUDING ALL RECRUITING, HIRING, RETENTION, DEVELOPMENT, DISCIPLINE AND TERMINATION DECISIONS.

## FOOTNOTE for ALL-NEW 2021 TOYOTA SIENNA:

1. Installation of a tow hitch receiver or other accessories located near the rear bumper may require disabling or removing the kick sensor, and the sensor operation setting in your vehicle should be turned off. Water, weather, dirt, and other conditions also may cause the sensor to not operate properly or to operate unintentionally. See Owner's Manual for limitations.
2. Rated for 1500 watts shared between both outlets. See Owner's Manual for additional limitations and details.
3. Toyota Safety Sense™ effectiveness is dependent on many factors including road, weather and vehicle conditions. Drivers are responsible for their own safe driving.
4. The TSS Pre-Collision System is designed to help avoid or reduce the crash speed and damage in certain frontal collisions only. It is not a substitute for safe and attentive driving. System effectiveness is dependent on many factors, including road, weather and vehicle conditions. Feature availability may vary by vehicle and trim.
5. Dynamic Radar Cruise Control (DRCC) is designed to assist the driver and is not a substitute for safe and attentive driving. System effectiveness is dependent on many factors, including road, weather and vehicle conditions. Feature availability may vary by vehicle and trim.
6. Lane Departure Alert (LDA) is designed to read visible lane markers under certain conditions and provide visual and audible alerts when lane departure is detected. It is not a collision-avoidance system or a substitute for safe and attentive driving. System effectiveness is dependent on many factors, including road, weather and vehicle conditions.
7. Automatic High Beams operate at speeds above 25 mph. Factors such as a dirty windshield, weather, lightning, and terrain limit effectiveness, requiring the driver to manually operate the high beams. Feature availability may vary by vehicle and trim.
8. Lane Tracing Assist (LTA) is designed to read visible lane makers and detect other vehicles under certain conditions. It is only operational when DRCC is engaged.
9. Do not rely exclusively on Road Sign Assist (RSA). It is not a substitute for safe and attentive driving. System effectiveness is dependent on many factors, including road, weather and vehicle conditions. Feature availability may vary by vehicle and trim.
10. Do not rely exclusively on the Blind Spot Monitor. Always look over your shoulder and use your turn signal. There are limitations to the function, detection and range of the monitor. See Owner's Manual for additional limitations and details.
11. Do not rely exclusively on the Rear Cross-Traffic Alert system. Always look over your shoulder and use your mirrors to confirm rear clearance. There are limitations to the function, detection and range of the system. See Owner's Manual for additional limitations and details.
12. Hill Start Assist Control is designed to help minimize backward rolling on steep ascents. It is not a substitute for safe driving judgement and practices. Factors including speed, grade, surface conditions and driver input can all affect whether HAC will be effective in preventing a loss of control.
13. Airbag systems are Supplemental Restraint Systems and are designed to inflate only under certain conditions and in certain types of severe collisions.
14. At speeds of 9 mph or less, Front and Rear Parking Assist with Automatic Braking (PA w/AB) is designed to assist drivers in avoiding potential collisions with nearby static objects when the vehicle is in Drive or Reverse and approaching crossing vehicles when the vehicle is in Reverse. Do not overly rely on PA w/AB. Always look around outside the vehicle and use mirrors to confirm clearance. Certain vehicle and environmental factors, including an object or vehicle's shape, size and composition, may affect the system's effectiveness.
15. The Panoramic View Monitor does not provide a comprehensive view of the area surrounding the vehicle. You should also look around outside your vehicle and use your mirrors to confirm surrounding clearance. Environmental conditions may limit effectiveness and view may become obscured. See Owner's Manual for additional limitations and details.

## FOOTNOTES for AUTOMOTIVE REPAIR RECOVERY:

1. CCC Information Services Inc. (2020)
2. U.S. Department of Transportation (2020)
3. 2020 MSO Symposium trend review: Beyond Consolidation: What is Driving the Economy and Investor Interest in the Collision Industry Today

## CONTRIBUTING DEPARTMENTS:

Toyota Collision Repair & Refinish Training  
Toyota Certified Collision Centers  
Toyota Genuine Parts  
Toyota Wholesale Parts & Certified Collision Department

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## TECHNICAL WEBSITES

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[www.crrtraining.com](http://www.crrtraining.com)  
<https://techinfo.toyota.com>  
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Wholesale Parts

