

## **THE TOYOTA COROLLA**

Two key factors make the 12<sup>th</sup> generation Toyota Corolla model range a strong competitor in the compact car market.

Firstly, its new Toyota New Global Architecture (TNGA) GA-C platform equips it with superior driving dynamics and enhanced safety levels, and has given Toyota's designers freedom to give each body type a distinctive and individual look. The dynamic styling creates a stronger differentiation than ever before between the compact Hatchback, versatile Touring Sports and prestigious Saloon.

Secondly, it adopts a dual hybrid strategy. The Corolla Hatchback and Touring Sports were the first models to offer customers a choice of two self-charging hybrid powertrains: an improved 1.8-litre with 120bhp and a new 2.0-litre system developing 181bhp. In addition, the Saloon is available with hybrid power for the first time, adopting the 1.8-litre hybrid powertrain.

All Toyota's TNGA-based vehicles prioritise the highest active and passive safety standards. The Corolla range is designed to meet the exacting standards of independent crash testing programmes and provide increased protection through the sophisticated functions and systems of the latest Toyota Safety Sense technology.

The Corolla Hatchback, Touring Sports and Saloon are stylish cars that meet all the requirements of both daily commutes and weekend leisure, combining driving enjoyment in all road conditions with the peace of mind and low running costs that are signature rewards of Toyota's self-charging hybrid technology.

Toyota Manufacturing UK (TMUK)'s Burnaston factory in Derbyshire is the European centre for production of the Corolla Hatchback and Touring Sports, with hybrid engines (1.8-litre) supplied by the TMUK factory in Deeside, North Wales. Corolla Saloon models are produced by Toyota Motor Manufacturing Turkey.

### **INTERVIEW WITH YASUSHI UEDA, COROLLA CHIEF ENGINEER**

*What were the focus points for the development of the new Corolla range?*

“Corolla carries a heritage of more than 50 years. From the first generation model to the latest one, it has always remained true to its original concept: a passenger car which offers strong levels of quality, durability and reliability (QDR) and a smooth driving experience

which people from all around the globe can enjoy. This foundation, or 'Corolla-ness' as we call it, was our starting point.

"Then, in the concept development phase, we looked at which new elements we could add for this new generation Corolla. We identified 'dynamic styling' and 'driving pleasure/fun-to-drive' as the two main pillars. To achieve these two elements, we knew we could rely on the new TNGA-based GA-C platform.

"One of the big merits of this new platform is that it allows designers more freedom to create a dynamic exterior. All three Corolla body types now have a distinctive and individual look, with a lower stance and more appealing proportions. We've also ensured better all-round visibility for the driver by introducing thinner A-pillars and a lower dashboard and bonnet.

"The new Corolla shares its platform with the latest generation Prius and C-HR. From that point of view, we already knew we had a good basis for driving dynamics thanks to a low driving position, a lowered centre of gravity and a multi-link rear suspension. Nevertheless, we were able to improve the dynamic performance even further.

"For example, the steering response has been further developed to provide a better feel, and the rear suspension features new shock absorbers with new friction technology to provide an even better balance between ride and handling."

*Why does the Saloon have a different front and rear design to the Hatchback and Touring Sports?*

"Based on customer research we conducted at the beginning of the project, it was clear that Hatchback and Touring Sports customers are very keen to have a dynamic-looking vehicle, whereas Saloon owners tend to prefer a car with a more prestigious look.

"Visually, the three body types are clearly related thanks to their overall sporting shape, but we've added more of a prestige touch to the Saloon's exterior design."

*Corolla is a global model. How did you ensure that its driving capabilities are suitable for drivers from different regions?*

"In the past there were clear differences in what customers expected from their vehicle, but nowadays it seems more unified among the different regions.

"From the customer interviews we held in Europe, the USA and Japan, we learned that they all want a nice-looking car that handles well. This makes it easier for us to have one main direction for dynamic performance which can be appreciated by all customers around the world.

“Dynamically, the car is aimed at Europe, but for other markets we conducted some further regional tuning, optimising suspension and steering set-ups to ensure that the car copes well with local road conditions.”

*Did you apply different tuning for three different body types?*

“The overall direction to have a ‘fun-to-drive’ feeling is the same, but indeed, body type-specific tuning has been implemented according to customer expectations.

“The Hatchback has a more dynamic character with a more direct response and more agile feeling. The Saloon and Touring Sports both make use of the extended wheelbase to combine good handling with more ride comfort – especially for the rear passengers – while still offering a stable ride.

“Of course we also had to tune the Touring Sports’s suspension to ensure the same level of handling even when the owner makes full use of the car’s higher load capacity.

“These different characteristics were already defined at the beginning of the development programme.”

*Did you also conduct prototype drives in Europe?*

“Of course! Not only because Europe will be the main region for Hatchback and Touring Sports sales, but also because in general, Europeans have a more ‘dynamic’ way of driving.

“The speed of traffic is higher than in other regions; people want their cars to be nimble for city driving and comfortable for long-distance driving at highway speeds.

“Therefore, we conducted extensive testing in several European countries, including Belgium because of the involvement of our colleagues at the European R&D centre there, who were in charge of the development of the Touring Sports model.”

*Which element are you most proud of?*

“During the development, several people who were not part of our team – such as other Toyota engineers, a limited number of journalists and people from our sales network – had the opportunity to drive the car. Each of them had a big smile on their face when they got behind the wheel of the prototypes. This is the kind of appreciation which makes me feel proud.

“I know that in some regions the image of Toyota and Corolla is sometimes considered a bit... boring, maybe? But I am confident that thanks to this new generation’s sleek design and good driving performance we can turn this image around.”

*If you could become the Chief Engineer of any Toyota model, which one would you choose?*

“I would still choose Corolla, a model that is sold around the world and which has such a strong heritage.

“The fact that I can meet and work with people from various countries and regions makes it very interesting for me. I’ve learned that the way customers use their car varies around the world. This makes it more challenging for us to ensure that new Corolla suits all of them. But this is also what makes us enjoy our job so much.

“It is also our goal to continue to build the model’s legacy, and the biggest reward we can get is seeing how people enjoy our car and that they are proud to own a new Corolla.”

### **A MORE REWARDING DRIVING EXPERIENCE**

- TNGA platform brings handling agility, responsiveness and a comfortable ride
- MacPherson strut front suspension and all-new multilink rear suspension
- Drive Mode Select system with Eco, Comfort, Normal and Sport modes
- Improved NVH complements the exceptional quietness of Toyota’s self-charging hybrid technology

The GA-C platform brings considerable dynamic benefits to the Corolla range, as well as marked improvements in ergonomics and visibility for the driver.

The platform guarantees a more rewarding driving experience, thanks to a centre of gravity that’s lowered by 10mm, multilink rear suspension as standard across the range and a 60 per cent more rigid body shell, achieved through the use of high-strength steel reinforcement in key areas. All these elements contribute to better handling and stability without compromising ride and comfort, as well as reducing high-frequency vibration, increasing the overall sense of quality.

### **Highly rigid, lightweight body shell**

A considerable reduction in the car’s body weight has been achieved by making extensive use of high-tensile steel and hot-stamped materials, and by reducing the thickness of the door and roof panels. This in turn helps improve overall fuel efficiency.

At the same time, applying adhesives and more spot welding throughout the body shell and using fully closed cross sections and structural rings, together deliver an increase of around 60 per cent in body rigidity compared to the previous Corolla/Auris models. This promotes a

marked increase in handling agility, responsiveness to steering inputs and high-speed stability.

Handling and agility are further improved by the engine's low mounting height, a lower hip point for the seats and the location of the hybrid battery beneath the rear seats. In combination, these measures have brought the centre of gravity down by 10mm.

## **Suspension**

The Corolla range uses a proven MacPherson strut front suspension, an all-new multilink arrangement at the rear and new shock absorber valve technology.

The front suspension geometry has been revised with new shock absorbers and coil springs optimised for a linear steering response in mid to high-speed cornering. The characteristics and clearance of the bound stoppers and location of the anti-roll bar have been optimised, and the strut bearing rotation axis has been realigned from the shock absorber to the king pin (steering) axis, reducing the left/right side steering force differences and enhancing steering feel.

The suspension arm and bush structures have been changed and the friction of sliding parts has been reduced to achieve quicker shock absorber response and minimise the transmission of shocks from rough surfaces.

The multilink rear suspension is notably compact and makes use of new-design coil springs, offering both handling stability and ride comfort. Link arm location has been optimised to keep the tyres at a toe-in angle, both during cornering and under braking, securing better response to steering inputs and stability.

Friction in both the front and rear suspension has been reduced by 40 per cent, helping gain a smoother and more comfortable ride.

## **Aerodynamics**

The GA-C platform offers the further benefit of allowing for the design of a highly aerodynamic body shape, thanks to factors such as the reduction in overall vehicle height and a significantly lower bonnet.

Corolla adopts a full underfloor cover and there are aero stabilising fins on both the rear bumper seal and the rear lamp clusters to help direct airflow and improve handling stability.

## **Improved noise and vibration performance**

Corolla builds on the inherent quietness of Toyota's self-charging hybrid technology with numerous measures to minimise noise and vibration entering the cabin.

The engine installation has been designed to minimise vibration at start-up and idling speeds. The increase in engine speed at the start of acceleration has been suppressed, to achieve both a more linear match between engine and vehicle speeds and quieter running under acceleration.

The GA-C platform contributes to the suppression of transmission vibration, the steering wheel pad acts as a dynamic damper to suppress steering vibration, and even the tool box design helps reduce vibration in the rear floor panel.

Generous application of sound-absorbing and insulating material in the engine bay combines with a triple-layered dashboard inner silencer to minimise the ingress of engine and transmission noise into the cabin.

Corolla further benefits from an integral floor silencer, increased body sealer in the gaps between panels and foam material injected into numerous locations around the body frame to reduce wind and road noise levels in the cabin.

## **INTERVIEW WITH REMBERT SERRUS, SENIOR MANAGER, VEHICLE PERFORMANCE, TOYOTA MOTOR EUROPE (TME)**

*What was TME's involvement in the development of the new Corolla?*

"Platform testing for this new generation Corolla was carried out in Europe, in different stages, from 2012. In the case of the Hatchback and Touring Sports, the vehicles were developed with Europe as their primary market.

"Here at TME R&D we set the initial vehicle direction and targets from the start. After that, we worked on European-specific areas such as vehicle dynamics, driveability, noise and vibration and sensory quality. And, in the case of the Touring Sports, vehicle concept, styling and all components rear of the B-pillar were 100 per cent developed in Europe."

*What did you want to achieve with the new Corolla, and how did you go about making it different from previous generations of the model?*

"One fundamental difference is that we worked with the GA-C platform. This has been developed to meet European standards – the highest in the world – in areas such as ride and handling and noise and vibration.

“Throughout the project, we aimed at developing an emotionally engaging car. This was realised by the introduction of the brand new 2.0-litre hybrid powertrain, the highest sensory quality standards, and enormous efforts to ensure styling finesse.”

*What were the main areas you wanted to improve?*

“In a word: coherence, based on the introduction of a dual hybrid offer. We developed the car around that, with optimal driveability, a fine balance of ride comfort and handling, the lowest possible noise and vibration, supportive seats and premium audio.

“We made every effort to provide a confident and enjoyable driving experience for both the daily commute and also when travelling long distances.”

*This really is an ‘all-new’ car. What kind of challenges did that present?*

“We had many technical challenges, such as how to ensure the Touring Sports’s body rigidity. But as this could be managed within TME, it probably wasn’t the biggest hurdle we faced. I would say the biggest challenge was to develop the new Corolla with two teams – Japan and Europe – working in parallel. Even if communications tools have evolved a great deal today, in the end, project progress and success lie in the hands of the people involved.

“With Chief Engineers on both sides who have had years of experience in Europe, communication, understanding and alignment between them have been key to overcoming even the biggest challenges.”

*What makes Corolla a true European car?*

“As I mentioned earlier, the vehicle direction and targets were set here in Europe. We worked on many areas, including ride and handling.

“Sensory quality was also developed by our team, now recognised as a centre of excellence in that field and currently working on many global projects.

“The wagon was fully developed in Europe and is only sold here, while the hatchback was developed specifically to meet the stringent demands of Europe’s largest segment.

“On the powertrain side, we are the only carmaker in Europe offering two electrified petrol powertrains, which is something European customers are asking for right now.

“At no point in the project did we have to accept a compromise decision to meet the demands of other regions. Rather, new Corolla has been developed to be a car that is a strong competitor in the European market and which is also sold globally.”

*What changes did you make to the interior?*

“With the GA-C platform, the base of the windscreen was lowered by 40mm and the overall height of the dashboard was reduced to create a more elegant and lighter shape than before.

“On the materials and finishes side, we mapped the interior to ensure a consistent approach in all applications and, from the first 3D model, shapes were optimised in detail to ensure they looked authentic; for example, metal inserts look and feel like metal.”

*What countermeasures did you take to improve Corolla’s noise and vibration performance?*

“Overall cockpit sealing performance has been improved by using a much more effective dashboard silencer with a far smaller exposed area. There is also new door sealing, wheelhouse silencers at the rear, front acoustic glass and so on.”

*What is your favourite feature of the new Corolla?*

Maybe it’s not really a ‘feature’ as such, but for me the driving position – seat/dash/steering/console – is what makes the most important difference. From the moment you sit in the car, you want to take off and drive it. It engages you and provides confidence right from the start.”

## **AN EXPANDED HYBRID LINE-UP**

- First Toyota model to offer a choice of two self-charging hybrid powertrains – 120bhp 1.8-litre and a new 178bhp 2.0-litre (for the Hatchback and Touring Sports, according to grade)
- 1.8-litre self-charging hybrid available for the first time in the Corolla Saloon

Society’s increased demand for environmental protection has led to ever stricter regulations, particularly in large European cities. Within this landscape, Toyota’s self-charging hybrid powertrains are a compelling proposition, being capable of covering up to 50 per cent of a daily commuting drive under electric power alone<sup>1</sup>.

Toyota prides itself on listening to its customers and responding to their feedback, and has focused on the input from potential buyers who want more power when driving a hybrid. For this reason, it is offering the new Corolla Hatchback and Touring Sports with a choice of two hybrid powertrains: one offers all the strengths of the fourth generation hybrid system, including improved response and linearity, together with the traditional benefits of fuel efficiency and a relaxing drive; the other builds on these qualities with greater power on demand, effortless acceleration and more dynamic, ‘fun-to-drive’ characteristics.

All versions of the Saloon are powered by the 120bhp 1.8-litre hybrid powertrain.

<sup>1</sup> Dependent on driving conditions.

### **Improved 1.8-litre hybrid powertrain**

The fourth generation 1.8-litre self-charging hybrid system develops 120bhp/90kW and 142Nm of engine torque, with the added power of a 53kW/600V electric motor that produces maximum torque of 163Nm from zero rpm.

It fulfils all the qualities that customers have come to expect from a Toyota self-charging hybrid: quiet, intuitive, responsive and self-sufficient EV technology with no need for plug-in recharging. It offers low cost of ownership, strong fuel economy and low CO<sub>2</sub> emissions, and up to 50 per cent all-electric driving on average, everyday commuting journeys<sup>2</sup>.

The four-cylinder, 1,797cc DOHC Atkinson cycle engine has been made smaller and lighter to fit within the new GA-C platform without detriment to performance or quietness. It also benefits from numerous measures to enhance acceleration and reduce noise levels in the cabin.

Its fuel efficiency has been improved by reducing friction, creating high tumble flow and optimum heat management. Friction reduction measures include a new piston skirt shape, with a resin coating on its sliding parts; a spacer fitted inside the cylinder block water jacket to suppress deformation of the cylinder bore; low-friction valvetrain and chain drive components; and optimisation of the crank and connection rod bearings.

High tumble flow has been achieved through adjusting the shape of the intake port and piston, enhancing exhaust gas recirculation (EGR) performance and improving combustion. A diagonal squish combustion chamber, aligned with the spark plug angle, has improved anti-knock performance and fuel efficiency. The EGR system valve has been enlarged to optimise gas flow; the intake manifold gas distribution structure has been optimised; and the efficiency of the EGR cooler heat exchange has been increased.

Heat management has been optimised by using a low-flow-type electric water pump and by splitting the cooling path in two – one route for the engine and the other for the heater. A flow shutting valve has been installed between the water outlet and the EGR cooler to reduce the flow of coolant during engine warm-up. Other measures include using thin, long-reach spark plugs, changes to the shape of the combustion chamber water jacket and the promotion of high tumble flow in the cylinders.

Better acceleration performance has been gained by using dual needle-type spark plugs to improve ignition, and a rectangular-type ignition coil.

Adjustments to the main engine body promote low vibration and noise, while noise experienced in the cabin has been further reduced with new engine mount shape and positioning and a new-shape exhaust silencer. A new resin cylinder head cover saves weight and reduces noise and vibration.

The hybrid system has a smaller, lighter transaxle with a dual axis structure for the electric motor and generator, achieving a low-loss gear train with smaller overall width than a single-axis arrangement. The parallel axis design allows for both an increase in the motor's rotation speed and a reduction in its size.

The gear ratio has been optimised to promote maximum fuel efficiency and dynamic performance. The new gear structure also benefits from polished gear tooth surfaces, which further suppresses resonance and operating noise, making the hybrid drive system quieter than ever before.

The system's calibration has been further refined, with greater torque from the electric motor providing a more linear increase in revs under acceleration, while a new hybrid battery pack – lithium-ion for the Hatchback and Touring Sports, nickel-metal hydride for the saloon – contributes to even better fuel economy.

Performance figures for the Hatchback, Touring Sports and Saloon with the 1.8-litre hybrid powertrain are 0-62mph in 10.9, 11.1 and 11.0 seconds respectively. Top speed for all three versions is 112mph.

Fuel consumption and CO<sub>2</sub> emissions figures are provided in the technical specification tables, below.

<sup>2</sup> Dependent on driving conditions

## **2.0-litre hybrid powertrain**

The 2.0-litre hybrid system, introduced as new in the Toyota Corolla from launch, develops 178bhp/132kW and 192Nm of engine torque, with added power from an 80kW/650V electric motor that produces 202Nm maximum torque from zero rpm.

It provides an “energised drive,” taking full advantage of the stability, handling and agility inherent in Corolla's new GA-C platform. There is more power, a Sport driving mode and a six-speed sequential shiftmatic transmission with steering wheel-mounted paddle shifts.

It is also a unique proposition in Corolla's market segment; no conventional powertrain can offer the same combination of performance and low emissions. Numerous measures have been taken to match the power with fuel efficiency, low emissions and quiet running.

The aluminium engine block has been designed for minimum weight, with its outer wall thickness reduced to 2.3mm, and a low centre of gravity, making a significant contribution to Corolla's dynamic performance. Other weight-reducing measures include a thinner cylinder head, a lightweight timing chain case and a lighter valvetrain.

Fuel-efficient, high-speed combustion is achieved through a high tumble flow created by an efficient intake port design and long stroke. There is also a new-design oil pump and, in common with the 1.8 hybrid system, numerous friction reducing measures and a 14.0:1 compression ratio have been adopted, all supporting fuel efficiency.

The four-cylinder, 1,987cc engine has an updated Dual VVT-i system with VVT-iE electric intelligent variable valve-timing on the intake side. This uses an electric motor instead of oil pressure to control timing, which improves output and efficiency while reducing emissions.

Emissions are also reduced by locating the exhaust system's catalytic converter closer to the engine and by initiating warm-up control after the engine is started to achieve early and better exhaust purification.

Powertrain noise levels are brought to exceptionally low levels by the use of a balance shaft, changes to the position and shape of the engine mounts, structural changes to the transaxle, gear tooth polishing, a positive/negative hysteresis damper, a lightweight timing chain and revisions to the water pump motor.

The powertrain shares the same benefits of reductions in size of the transaxle, power control unit, motor and nickel-metal hydride hybrid battery as the 1.8-litre system.

The maximum EV drive cruising speed has been increased to 70mph, and system control has been changed so that the engine cannot be started without pressing the accelerator pedal, even before engine warm-up starts. These measures all substantially enhance fuel economy.

0 to 62mph acceleration times for the Hatchback and Touring Sports are 7.9 and 8.1 seconds respectively; top speed for both versions is 112mph.

## **INTERVIEW WITH HIROYUKI TSUKASHIMA, HYBRID EXPERT FOR NEW COROLLA, TOYOTA MOTOR CORPORATION**

*How do the 1.8 and 2.0-litre hybrid systems differ from each other? Is it only in the displacement of the combustion engine?*

“The 1.8-litre system was developed for customers who value fuel economy, while the 2.0-litre powertrain has been developed for those who want more power and a more dynamic drive.

“But the difference between the two is not limited to the displacement of the combustion engine. The latter is a completely new self-charging hybrid system that can offer both excellent fuel efficiency and enthusiastic driving.”

*Is the 1.8-litre hybrid powertrain identical to that featured in Prius and C-HR, or have any changes been made?*

“The 1.8-litre HV system is basically the same as that found in Prius and C-HR, but we made some small tuning changes to further refine the powertrain and enhance the driving experience.”

*What was your main challenge during the development of the new 2.0-litre hybrid system?*

“For the new 2.0-litre hybrid powertrain, we further developed not only the rate of acceleration but also the sense of acceleration. By suppressing the initial engine rpm by using more battery and electric motor power, we were able to realise a more linear feeling of the engine and vehicle speeds matching during acceleration.”

*Is there a difference between the two powertrains when it comes to regenerating energy/charging the battery?*

“Since the 2.0-litre hybrid system has more battery cells than the 1.8-litre, it can both develop a greater output and offer more regenerative energy.”

*How is the gearbox in the 2.0-litre system different to that in the 1.8-litre? Why does the former feature shift paddles on the steering wheel?*

“To be exact, the HV system doesn’t have a gearbox, it has a transaxle. The difference between the transaxles in the 1.8 and 2.0-litre systems is in the size of the motor and gear.

“On the 2.0-litre hybrid powertrain we provide shift paddles as they give the driver more control and so allow for a more enthusiastic driving experience.”

## **THREE DISTINCTLY DIFFERENT BODY STYLES**

- New GA-C platform gives the design freedom for distinctive, individual Hatchback, Touring Sports and Saloon body styles
- Lower roof, bonnet and seat hip points, and a wider front and rear track for a lower centre of gravity and more athletic stance
- Touring Sports exclusive to Europe, styled at Toyota's new design centre in Belgium
- More prestigious design for the Saloon

The TNGA philosophy introduces defined guidelines for the location of different components, simplifying vehicle design in key areas. The impact is on items that are mainly out of sight, so designers still had the freedom to give each version of Corolla a distinctive, individual look, with a lower stance and more appealing proportions.

### **Dynamic compact Hatchback**

The hatchback has striking frontal styling that marks a further evolution of Toyota's design philosophy. The narrow upper grille, set beneath the curved front edge of a flatter, clamshell bonnet, incorporates new all-LED headlight units with integrated daytime running lights.

The trapezoidal lower grille surround projects powerfully forward and has a more vertical angle, resulting in the car's front overhang being reduced by 20mm.

The sides of the grille surround form a catamaran hull shape – a signature of Toyota contemporary design – at the car's front corners, emphasising the width and sporting stance. The grille mesh has a more refined design, and LED fog lights (Design and Excel grades) are located in the upturned edges of the front lip spoiler.

In profile, the elegant, sporting silhouette is enhanced by new wheel designs, with 16, 17 and 18-inch alloys offered, according to model grade and body style.

The rear design is more rounded, strengthening the visual relationship between the front and back of the car. The tailgate is made from a resin material, both to save weight and to allow the complex curves of its design to be realised.

A 14-degree increase in the rear screen angle and muscular haunches above the rear wheel arches combine to give the hatchback a more compact overall appearance. A roof spoiler is integrated in the tailgate and a shark fin antenna is fitted as standard.

The all-LED rear lamp clusters have light guides located as far out towards the vehicle's edge as possible, emphasising Corolla's wide stance. The rear bumper styling echoes the

catamaran look of the front; on the 2.0-litre hybrid there is a slim lower lip with two chrome inserts.

The hatchback's overall length has been increased by 40mm (compared to the previous Auris Hatchback), all of which is contained within a longer wheelbase, contributing to a better driving position and improved safety. Both front and rear overhangs have been reduced by 20mm. Overall height is down by 25mm and cowl height has been significantly lowered – by 47mm, creating a sleeker shape and a lower bonnet line that is both more attractive and gives the driver a clearer view of the road ahead.

These height reductions, allied to lower front and rear seat hip points (-24 and -26mm respectively), help lower the centre of gravity by 10mm. The front track has been increased by 6mm and the rear track by 30mm, contributing to more comfort and improved stability and handling.

The Corolla Hatchback's dynamic design can be emphasised with a range of nine bi-tone paint options, combining the body colour with a black metallic finish for the roof, front and rear pillars and door mirror casings.

### **Versatile Touring Sports**

The Touring Sports body type is exclusive to Europe and was styled at Toyota's new design centre in Zaventem, Belgium. Thanks to TNGA, it was possible to develop the wagon in parallel to the Hatchback and Saloon models, making it a distinct model in its own right.

Although it shares frontal styling and a 25mm height reduction with the Hatchback, every panel rear of the centre pillar is exclusive to the model. The result is an estate car with a sweeping roofline, generating an elegant yet robust look.

This sporting profile is enhanced by the same new wheel designs offered for the Hatchback and reinforced by flared wheel arches with edges hemmed so that the wheels can be positioned further out towards the edge of the vehicle. This adds emphasis to the car's wider stance and lower centre of gravity.

At the rear, the Touring Sports displays muscular rear shoulders and wide-set, full-LED light clusters. The rear screen is raked 12 degrees more steeply than the previous (Auris) model. The licence plate is positioned higher than on the Hatchback, within the tailgate panel. The step in the tailgate sill has been reduced, while deeper rear bumper styling continues to echo the catamaran theme at the front. On the 2.0-litre hybrid version there are twin exhaust tailpipes.

Although the front and rear overhangs have been reduced, the Touring Sports is 58mm longer than the model it replaces. More significantly, it has a 100mm longer wheelbase (at 2,700mm), and the front-to-rear couple distance has been increased by 48mm (to 928mm), to give best-in-class rear passenger legroom.

The colour choices, including bi-tone options, are the same as for the Hatchback.

### **Prestigious Saloon**

Like its Hatchback and Touring Sports siblings, the Corolla Saloon gains a wide and low stance courtesy of the GA-C platform. Its individuality is reflected in a more prestigious exterior design, with new front and rear styling.

The front of the car presents a further evolution of the catamaran design theme, with a more striking, two-step execution of the front wing corners, flanking the powerfully projecting lower grille. The upper grille has a more pronounced 3D design and connects with the top of the sharply styled headlamps, wrapping around the corners to emphasise the car's low, planted appearance.

The frontal treatment is echoed at the rear of the car in the shape of the bumper and inverted trapezium shape in the boot lid. The light clusters, specific to the Saloon, are connected by a chrome trim strip, which further expresses the model's width.

Specific front and rear light guides give the Saloon its own, recognisable illumination signature.

The car's overall length has been increased by 10mm (to 4,630mm) – 5mm has been taken from the front overhang, while the rear overhang has increased by 15mm. The extended, 2,700mm wheelbase is the same as on the Touring Sports. The overall height and boot lid surface have both been reduced by 20mm and the cowl height has dropped by 35mm. Together with a lowering of the front and rear seat hip points, by 23 and 9mm respectively, these height reductions help deliver a lower centre of gravity.

Wheel designs are the same as for the Hatchback and Touring Sports. There are five colour options, including a grey metallic, developed specifically for the Saloon.

## SPACIOUS AND REFINED INTERIOR

- Spacious, modern and cohesive interior, with high levels of visual and tactile quality
- Ergonomically excellent driver's cockpit, slimmer dashboard and wider, higher centre console
- Sports front seat design and more engaging driving position
- Touring Sports interior tailored for European customers with a focus on practicality

Corolla's interior is a spacious, modern and cohesive environment in which textures, colours and trims combine to offer high levels of visual and tactile quality.

Key to the feeling of spaciousness is an instrument panel that is 24mm slimmer overall. The reduction in height of the upper panel area reduces the structure's perceived mass and improves the driver's forward view, while at the same time enabling the front seat hip point to be lowered. This in turn helps lower the car's centre of gravity and creates a more engaging driving position.

Conversely, the centre console has been made 42mm wider and 22mm higher to improve switchgear and shift lever ergonomics and enhance the wraparound feel of the driver's cockpit area. The centre console arm rest height has been precisely determined and its sliding range increased by 20mm to improve comfort.

The ergonomic excellence of the driver's cockpit area is also supported by a new steering wheel design with integrated heating and optimised switch lay-out. New switchgear and instrumentation have also been introduced to create an intuitive HMI design. The details include a driver's instrument binnacle with a seven-inch multi-information display, a central eight-inch multimedia display, electronic parking brake control and an auto-dimming rear-view mirror (for full details see the Premium Comfort and Convenience chapter).

The revised front seat design features changes to the seatback and cushion springs and optimisation of the urethane pad thickness. These measures deliver a better driving posture and wider pressure dispersal for more comfort and less fatigue on long journeys.

The sports front seats featured on Hatchback and Touring Sports Excel models have slim and wide shoulder supports which overlap thick side bolsters, giving an overall thinner seat design with excellent holding performance.

Rear passenger comfort is improved with a new seat cushion material for more even occupant weight distribution, and rear cabin air vents.

The long wheelbase of the Touring Sports and Saloon has allowed for the front-to-rear couple distance to be increased by 48mm to 928mm, giving best-in-class rear seat legroom.

The interior design is rendered more cohesive and unified in appearance with the use of materials and trim finishes with high visual and tactile quality, including satin chrome plating and paint, piano black inserts and surfaces covered in a high-quality leather-effect material.

The Hatchback and Touring Sports are available with a Black interior colour scheme, with a choice of fabric or part leather upholstery. The Saloon has Black cloth upholstery.

### **Touring Sports with greater versatility**

The interior of the Touring Sports has been tailored for the European market, offering sensory quality of the highest order.

The loadspace has a 598-litre capacity (VDA, 1.8 hybrid) and comes with numerous features to make it practical and easy to use. The rear seats can be folded down using a remote lever, giving a fully flat load floor. Tailgate opening has been extended by 10mm.

Repositioning the rear shock absorbers has simplified the deck side wall structure, maximising the loadspace width, making loading easier and allowing side wall storage pockets to be added behind the rear wheel housings.

The load surface has a two-position (upper and lower) deck. This can be opened and closed in the upper position, as if it were hinged from the rear seatbacks. It is also reversible, with carpet on one side and a resin finish on the other, suitable for use when carrying wet or dirty items.

The space beneath the deck has been made larger, is fully carpeted and is fitted with detachable side separators. There's more convenience courtesy of the world's first LED load compartment lamps on both sides of the boot and a detachable, one-touch retractable tonneau cover.

### **PREMIUM COMFORT AND CONVENIENCE TECHNOLOGY**

- Extensive standard equipment specifications across full model range
- LED headlights on all versions – parabola or bi-beam units
- Seven-inch multi-information display and eight-inch central touch-screen
- Access to connected services

A comprehensive range of comfort and convenience technology is featured on the new Corolla, with generous equipment specifications across all grades.

Highlights include: -

**LED headlamps:** all Corolla models feature LED headlights. A triple-LED parabola unit is featured on Icon, Icon Tech and Design versions, while the Excel models have a bi-beam LED system. All feature an Automatic High Beam system as part of the Toyota Safety Sense package.

**Colour TFT multi-information display:** the driver's instrument binnacle features a seven-inch TFT multi-information display with functions including the choice of a digital or analogue speedometer.

**Toyota Touch 2 multimedia system:** an eight-inch full-colour touch screen gives access to the latest Toyota Touch 2 with Go multimedia and navigation system. Operation and functionality have been improved, with faster response and boot times and allowing the use of pinch, zoom and side commands, like those used on smartphones. There is now a One Box Search facility and the sharpness and contrast levels have been adjusted for improved readability, even in direct sunlight.

**Emergency eCall system:** all Corolla versions are fitted with eCall, a system which can automatically contact the emergency services with the vehicle's location and number of people on board in the event of an accident in which the airbags are deployed. It also enables occupants to communicate with the emergency operator.

The system can also be operated using a one-touch button, making a call to the emergency services using the car's built in SIM, at no charge to the vehicle owner.

**Connected services:** a number of useful connected services are being rolled out following by Toyota, helping with journey information and car management tools. Features proposed include Last Mile Guidance, Send to Car Navigation, Driving Analytics and Maintenance Reminder.

**JBL premium sound system:** Excel versions can be equipped with an optional eight-speaker JBL Premium Sound System. The speakers – including JBL's signature front pillar-mounted horn tweeter – have been specifically tuned to the acoustics of the Corolla's notably quiet cabin. The system uses Clari-Fi™ technology, which supplements in real time frequencies that are lost in compressed audio files, such as MP3 and streaming audio files. This restores the sound quality and stereo mix as closely as possible to the original recording.

**Panoramic roof:** a panoramic roof, available as an option for Design and Excel grade models, comprises two glass panels with the front section sliding to give a maximum opening of 272mm. When the panel is fully open, a mesh deflector reduces wind noise. The roof also comes with an internal electric roller shade.

**Simple Intelligent Park Assist with automatic braking (SIPA):** Corolla's intelligent park assist system (Icon Tech grade and higher) uses a rear camera and sensors on the sides of the front bumper to identify viable reverse and parallel parking spaces. It will then automatically apply the correct sequence of steering inputs to manoeuvre the car into the target space. The driver needs only to control the vehicle's speed; SIPA automatically applies the brakes to ensure safe operation.

## **TAKING SAFETY TO A HIGHER LEVEL**

- Toyota Safety Sense with upgraded features fitted as standard on all Corolla models
- Package for hybrid models includes Pre-Collision System, intelligent Adaptive Cruise Control, Lane Departure Alert, Lane Trace Assist, Automatic High Beam and Road Sign Assist
- High-strength body shell and improved pedestrian impact protection

## **ACTIVE SAFETY**

All Corolla versions are equipped as standard with the latest version of Toyota Safety Sense, a package of active safety technologies designed to help prevent or mitigate collisions across a wide range of driving scenarios.

It has been improved by adopting a new, higher resolution single-lens camera which works with a millimetre-wave radar to detect potential hazards. Both elements have a wider scope of detection and improved functionality, and the system unit has been made smaller for easier installation.

Corolla benefits from upgraded versions of the Pre-Collision System (PCS), intelligent Adaptive Cruise Control (iACC), Lane Departure Alert (LDA), Road Sign Assist (RSA) and Automatic High Beam (AHB). It also adopts a new Lane Trace Assist function.

With a reduced risk of being involved in traffic accidents thanks to Toyota Safety Sense, Corolla may benefit from lower insurance ratings and premiums.

## **Pre-Collision System (PCS)**

The Pre-Collision System is able to detect vehicles in front at speed between approximately six and 112mph and alert the driver of a collision risk with audible and visual warnings. At the same time, it primes the brakes to deliver maximum stopping power the moment the driver presses the pedal. If the driver fails to react and an impact becomes inevitable, the system automatically applies the brakes, reducing vehicle speed by up to 31mph<sup>6</sup>, potentially bringing it to a halt.

The latest upgrades to the system allow it to detect pedestrians during day and night-time driving, and bicycle riders during daylight hours. In these scenarios, automated braking can operate at relative speeds between six and 50mph, and reduce vehicle speed by up to 25mph<sup>7</sup>.

<sup>6</sup> Results from tests using a vehicle travelling at 50km/h and a stationary vehicle; system operation depends on the driving environment (eg road and weather) and vehicle circumstances.

<sup>7</sup> Results from tests using a vehicle travelling at 40km/h and a stationary pedestrian/cyclist; system operation depends on the driving environment (eg road and weather) and vehicle circumstances.

## **Adaptive Cruise Control**

The Adaptive Cruise Control helps the driver maintain a safe distance from the vehicle in front. It benefits from improved acceleration and deceleration control for smoother, more comfortable performance, and can be controlled using new switchgear located on the steering wheel.

It provides low-speed following and a stop-start capability when travelling at speeds from standstill to around 19mph. In congested traffic, the Corolla will be brought to stop when the vehicle ahead stops, maintaining an appropriate distance; to restart and reactivate the ACC, the driver simply presses the accelerator pedal or the switch on the steering wheel.

The system also supports safer overtaking manoeuvres, giving preliminary acceleration when the driver operates the turn indicator to move out and overtake a slower vehicle. If it detects another vehicle ahead in the overtaking lane, acceleration is suppressed to prevent the Corolla coming up behind it too suddenly.

The intelligent Adaptive Cruise Control links its operation with information from the Road Sign Assist. When the vehicle is travelling at a constant, pre-set speed and the RSA recognises a speed limit sign, the driver can easily reset the vehicle speed to comply with the limit simply by using the switches on the steering wheel.

## **Lane Departure Alert with steering control**

When the car is travelling at speeds above 31mph, Lane Departure Alert can help prevent accidents and head-on collisions caused by the vehicle straying from its traffic lane. If the system detects the vehicle is deviating from its lane without the turn indicators being used, it will trigger audible and visual warnings and can provide steering input to help the driver bring the car back to its correct path.

The latest upgrade to the system allows it to recognise the road margin on straight roads where there are no lane markings.

An additional Vehicle Sway Warning detects the kind of deviations that happen when a driver starts to lose concentration or becomes tired. Once again, audible and visual warnings are given, recommending the driver takes a break from the wheel.

## **Lane Trace Assist**

Lane Trace Assist provides advanced driving support, reducing the burden on the driver.

When the Adaptive Cruise Control and Lane Trace Assist are active, it will help the driver with gentle steering inputs to keep the vehicle centred in its traffic lane, even when travelling through gentle bends.

LTA will function from motorway speeds down to near-standstill, supporting the driver in congested traffic. If the system cannot detect lane markings on the road surface – if they are faded or obscured – it will follow the path of the vehicle ahead, recognised by the camera and millimetre-wave radar.

## **Automatic High Beam**

Automatic High Beam helps gain excellent forward visibility in night-time driving. It detects both the headlights of oncoming vehicles and the tail-lights of vehicles ahead, automatically switching between high and low beams to avoid dazzling other drivers. More frequent use of high beam increases the chances of detecting pedestrians and hazards earlier.

## **Road Sign Assist**

Road Sign Assist has been enhanced to that it is able to recognise a wider range of road sign warnings and commands, presenting the information on the driver's multi-information display. If the driver exceeds a recognised speed limit, the system can provide an audible and visual warning.

## **Drive Start Control**

Drive Start Control helps prevent unintended or abrupt vehicle starts when the driver is operating the shift lever by suppressing drivetrain power output and issuing a warning to keep vehicle speed and acceleration below a pre-determined level. For example, if the driver is pressing the accelerator pedal when shifting from Park to Drive, the system will automatically limit power output to help avoid unintended acceleration.

## **PASSIVE SAFETY**

### **Impact-absorbing body shell**

Corolla's body structure is designed to absorb front, side, rear and roof impacts, dispersing collision energy to help prevent deformation of the cabin.

Body rigidity has been increased by around 60 per cent through widespread use of adhesives and a greater number of spot welds.

Hot-stamped and ultra-high tensile steel are used to reinforce the front and centre pillars, the front door belt line, roof cross-members, the inner roof and front header extension, which helps suppress cabin deformation and optimise occupant protection.

### **Pedestrian impact protection**

A 'floating island' bonnet inner structure helps reduce the inertia G forces at the start of a collision and combines with a cowl louvre impact-absorbing structure to mitigate head injuries in the event of a pedestrian impact.

### **Airbags and seatbelts**

All Corolla models are equipped with driver and front passenger front and side airbags, driver's knee airbags and full-length curtain shield airbags.

The front seatbelts have a new-shape shoulder anchor which reduces the force needed to pull the belt. The belt's locking sensitivity has been changed to make fastening smoother when the belt is pulled quickly. The adoption of a flexible inner belt allows for easier fastening, regardless of the buckle angle.

## **UK MODEL RANGE**

- Four Corolla model grades – Icon, Icon Tech, Design and Excel
- Automatic LED headlights, alloy wheels, eCall, heated front seats, reversing camera and Toyota Safety Sense standard on all versions

- GR Sport and TREK versions added in 2020

The Corolla Hatchback and Touring Sports share the same UK equipment grade structure, with Icon, Icon Tech, Design and Excel trim levels. Likewise, the two body styles offer the same combinations of grades and powertrains.

The Corolla Saloon is available exclusively with the 1.8-litre hybrid powertrain, in Icon, Icon Tech and Design trims. Saloon on-the-road prices are the same as for the equivalent Hatchback models. All Corolla models are covered by Toyota's three-year/100,000-mile new vehicle warranty.

At the entry point to the Corolla range, **Icon** models are equipped as standard with features including: -

- 16-inch alloy wheels
- Automatic LED headlights
- eCall system
- Heated front seats with lumbar support
- Toyota Touch 2 with eight-inch multimedia touchscreen
- Reversing camera
- DAB
- 4.2-inch colour TFT multi-information display
- Dual-zone air conditioning

As the name suggests, **Icon Tech** grade adds further useful technology features, including: -

- Toyota Touch with Go, with satellite navigation and voice control
- Seven-inch colour TFT multi-information display
- Intelligent Clearance Sonar
- LED front fog lights
- Smart entry

**Design** grade majors on added style and convenience, introducing: -

- 17-inch machined alloy wheels
- Rain-sensing wipers
- Power-adjustable heated door mirrors with automatic folding function
- Auto-dimming rear-view mirror
- Rear privacy glass
- Optional opening panoramic roof

At the top of the Corolla range, **Excel** grade goes further by adding: -

- 18-inch alloy wheels (Hatchback, 17-inch for Touring Sports)
- Bi-LED headlights
- Sports front seats
- Part-leather seat upholstery
- Optional opening panoramic roof with power sunshade
- Optional bi-tone paint finish (Hatchback only)
- Optional eight-speaker JBL premium sound system (2.0-litre Hybrid only)

### **New Corolla GR Sport**

The Corolla GR Sport displays the influence of Gazoo Racing, Toyota's global championship-winning motorsport arm, with design and specification details that give the car a wider, more planted and powerful look and a sportier cabin ambience.

The dedicated styling elements include a sharper design for the lower centre bumper section, a wide honeycomb mesh pattern for the front grille and piano black surrounds for the grille and fog lights. There is a black insert in the rocker panels and the 18-inch black alloy wheels have a contrasting bright machined finish to the tips of each spoke and red GR centre caps (17inch diameter wheels in the same design are featured on the Touring Sports model). At the rear there is a silver insert in the lower bumper, creating the look of twin tailpipes and a diffuser.

The finishing touches are black backgrounds for Toyota emblems on the bonnet and tailgate, official GR (Gazoo Racing) badging and the option of a new Ash Grey paint finish.

The GR Sport cabin is fitted with sports front seats, upholstered in fabric with a dedicated pinstripe pattern and with seatback and cushion bolsters finished in black and grey synthetic leather. It is also equipped with Toyota's latest multimedia package, including Apple CarPlay and Android Auto functions for seamless smartphone integration.

The equipment specification matches the Corolla Design grade and further includes a seven-inch colour TFT multi-information screen with 3D-effect graphics, and a colour head-up display. Other standard features include Toyota Safety Sense, LED headlights, rear privacy glass, automatic wipers, auto-dimming rear-view mirror and power-adjustable door mirrors with an auto-folding function.

The head-up display measures 265 by 70.5mm and presents data clearly in the driver's line of sight, even in bright light conditions. Brightness and the position of the display can be adjusted using controls on the steering wheel.

### **Corolla Touring Sports TREK**

The Corolla Touring Sports TREK celebrates a partnership between Toyota and the internationally renowned bicycle manufacturer TREK. It stands apart from the rest of the range with its SUV-influenced look: the suspension has been raised by 20mm and special exterior styling details have been added, including black edging for the front and rear bumpers, silver-finished front and rear under-runs, black wheel arch mouldings and black rocker panels with silver inserts. There's a new machined/black contrast design for the 17-inch alloy wheels and TREK badging on the tailgate, plus rear privacy glass, a honeycomb-pattern grille and LED headlights.

The interior features further special detailing, including TREK-branded scuff plates, a special two-tone brown and grey fabric upholstery and subtle wood-finish trim on the dashboard. The specification matches the regular Corolla Design grade, with the addition of a power tailgate with kick sensor. It also adopts the new Toyota multimedia system with smartphone integration functions.

### **Sales data**

Corolla sales in UK markets in 2020: 18,144

Cumulative sales since UK launch (all Corolla generations/models): 591,437

## TOYOTA COROLLA TECHNICAL SPECIFICATIONS

<b>1.8-litre Hybrid</b>		
Engine Code	2ZR-FXE	
Type	Four cylinders in-line	
Valve mechanism	DOHC 16-valve with VVT-i	
Fuel system	Electronic fuel injection	
Displacement (cc)	1,798	
Bore x stroke (mm)	80.5 x 88.3	
Compression ratio	13.0:1	
Max. torque (Nm @ rpm)	142 @ 3,600 – 4,000	
Total hybrid system max. output (bhp/kW)	120/90 @ 5,200	
<b>Electric motor</b>		
Motor type	Permanent magnet, synchronous	
Max. voltage (v)	600	
Max. power (kW)	53	
Max. torque (nm)	163	
<b>High-voltage battery</b>	Hatchback & Touring Sports	Saloon
Battery type	Lithium-ion	Nickel-metal hydride
Number of cells	56	168
Nominal voltage (v)	207	201.6
Battery capacity (amp/h)	3.6	7.2
<b>2.0-litre HYBRID</b>		
Engine Code	M20A-FXS	
Type	Four cylinders in-line	
Valve mechanism	DOHC 16-valve with VVT-i	
Fuel system	Electronic fuel injection	
Displacement (cc)	1,987	
Bore x stroke (mm)	80.5 x 97.6	
Compression ratio	14.0:1	

Max torque (Nm @ rpm)		190 @ 4,400 – 5,200		
Total hybrid system max. output (bhp/kW)		181/135		
<b>Electric motor</b>				
Motor type		Permanent magnet, synchronous		
Max. voltage (v)		650		
Max. power (kW)		80		
Max. torque (nm)		202		
<b>High-voltage battery</b>				
Battery type		Nickel-metal hydride		
Number of cells		180		
Nominal voltage (v)		216		
Battery capacity (amp/h)		6.5		
<b>TRANSMISSIONS</b>		<b>1.8 Hybrid</b>	<b>2.0 Hybrid</b>	
Type		CVT	CVT	
Gear ratios	Differential gear ratio	2.834	3.193	
<b>PERFORMANCE</b>		<b>1.8 Hybrid</b>	<b>2.0 Hybrid</b>	
Max Speed (mph)		112	112	
0-62mph acceleration (sec)	Hatchback	10.9	7.9	
	Touring Sports	11.1	8.1	
	Saloon	11.0	-	
<b>FUEL CONSUMPTION (WLTP)</b>		<b>1.8 Hybrid</b>	<b>2.0 Hybrid</b>	
Combined (mpg)	Hatchback	Icon	55.39-62.77	50.44-57.65
		Icon Tech	55.39-62.77	50.44-57.65
		Design	55.39-57.65	50.44-54.32
		GR Sport	55.39-56.50	50.44-53.30
		Excel	55.39-56.50	50.44-53.30
	Touring Sports	Icon	55.39-61.41	50.44-56.50
		Icon Tech	55.39-61.41	50.44-56.50
		Design	55.39-57.65	50.44-52.31
		GR Sport	55.39-56.50	51.36-53.30
		Excel	55.39-56.50	51.36-52.31

		TREK	55.39-56.50	50.44-53.30
	Saloon	Icon	53.39-62.77	-
		Icon Tech	53.39-62.77	-
		Design	53.39-57.65	-
Fuel tank capacity (l)			43	43
<b>CO<sub>2</sub> EMISSIONS (WLTP)</b>			<b>1.8 Hybrid</b>	<b>2.0 Hybrid</b>
Combined (g/km)	Hatchback	Icon	102	111
		Icon Tech	102	111
		Design	110-111	120
		GR Sport	112	119
		Excel	112	120
	Touring Sports	Icon	103	112
		Icon Tech	103	112
		Design	112	121
		GR Sport	112	121
		Excel	112	121
		TREK	113	121
	Saloon	Icon	102	-
		Icon Tech	102	-
		Design	111	-
	Insurance groups			14E-15E
Service schedule			10,000 miles/annually	
<b>BRAKES</b>			<b>1.8 Hybrid</b>	<b>2.0 Hybrid</b>
Front – ventilated discs (diameter, mm)			282	298
Rear – solid discs (diameter, mm)			274	274
<b>SUSPENSION</b>				
Front			MacPherson strut, anti-roll bar	
Rear			Multilink, anti-roll bar	

<b>STEERING</b>				
Type		Rack and pinion, electric power steering		
Ratio	16in wheel	13.5:1		
	17/18in wheel	13.6:1		
Turns lock-to-lock	16in wheel	2.65		
	17/18in wheel	2.76		
Min. turning radius – body	16in wheel	5.6		
	17/18in wheel	5.8		
Min. turning radius – tyre	16in wheel	5.2		
	17/18in wheel	5.4		
<b>EXTERIOR DIMENSIONS</b>		<b>HATCHBACK</b>	<b>TOURING SPORTS</b>	<b>SALOON</b>
Overall length (mm)		4,370	4,650	4,630
Overall width (mm)		1,790	1,790 1,805 TREK	1,780
Overall height (mm)		1,435	1,435 1,455 TREK	1,435
Wheelbase (mm)		2,640	2,700	2,700
Front track (mm)	16in wheel	1,530	1,530	1,530
	17/18in wheel	1,530	1,530	1,530
Rear track (mm)	16in wheel	1,544	1,544	1,539
	17/18in wheel	1,544	1,544	1,544
Front overhang (mm)		935	935	935
Rear overhang (mm)		795	1,018	995
Ground clearance (mm)		135	135	135
Coefficient of drag (Cd)		0.31	0.31	0.31

<b>INTERIOR DIMENSIONS</b>		<b>HATCHBACK</b>	<b>TOURING SPORTS</b>	<b>SALOON</b>
Interior length (mm)		1,795	1,895	1,890
Interior width (mm)		1,510	1,510	1,510
Interior height (mm)		1,155	1,155	1,155
Loadspace length – rear seats up (mm)		1,795	1,860	1,055
Loadspace max. Width (mm)		1,395	1,430	1,360
Loadspace height – to tonneau (mm)		350	520	520
Load capacity (l)	1.8 hybrid	361	598	471
	2.0 hybrid	313	581	-
<b>WEIGHTS</b>		<b>HATCHBACK</b>	<b>TOURING SPORTS</b>	<b>SALOON</b>
Kerb weight (kg)	1.8 hybrid	1,295 – 1,400	1,300 – 1,430	1,310
	2.0 hybrid	1,340 – 1,510	1,370 – 1,560	-
Gross vehicle weight (kg)	1.8 hybrid	1,820	1,835	1,835
	2.0 hybrid	1,910	1,955	-
Towing capacity – braked (kg)	1.8 & 2.0 hybrid	750	750	750
Towing capacity – unbraked (kg)		450	450	450
<b>WHEELS &amp; TYRES</b>		<b>HATCHBACK</b>	<b>TOURING SPORTS</b>	<b>SALOON</b>
Wheels		16, 17 or 18in alloy		
Tyres	16in wheel	205/55R16 91V		
	17in wheel	225/45R17 91W		
	18in wheel	225/40R18 92W		

## TOYOTA COROLLA EQUIPMENT SPECIFICATIONS

SAFETY	ICON	ICON TECH	DESIGN	GR SPORT	TREK	EXCEL
Toyota Safety Sense: Pre-Collision System, full-range Adaptive Cruise Control, Automatic High Beam, Lane Departure Alert, Lane Trace Assist, Sway Warning and Road Sign Assist	✓	✓	✓	✓	✓	✓
Driver and passenger airbag	✓	✓	✓	✓	✓	✓
Driver and passenger side airbag	✓	✓	✓	✓	✓	✓
Curtain shield airbags	✓	✓	✓	✓	✓	✓
Driver's knee airbag	✓	✓	✓	✓	✓	✓
Dual-stage (light and buzzer) seatbelt reminder	✓	✓	✓	✓	✓	✓
Passenger airbag cut-off switch	✓	✓	✓	✓	✓	✓
Height adjustable front and rear head restraints	✓	✓	✓	✓	✓	✓
Three-point front seatbelts with pretensioners, load limiters and emergency locking retractors	✓	✓	✓	✓	✓	✓
Three-point rear seatbelts with load limiters and emergency locking retractors	✓	✓	✓	✓	✓	✓
Child proof locks on rear doors	✓	✓	✓	✓	✓	✓
ISOFIX child seat anchors on outer rear seats	✓	✓	✓	✓	✓	✓
ABS	✓	✓	✓	✓	✓	✓
Electronic Brakeforce Distribution (EBD)	✓	✓	✓	✓	✓	✓
Brake Assist (BA)	✓	✓	✓	✓	✓	✓
Vehicle Stability Control (VSC) and Traction Control (TRC)	✓	✓	✓	✓	✓	✓
Hill-start Assist Control	✓	✓	✓	✓	✓	✓
Tyre Pressure Warning System	✓	✓	✓	✓	✓	✓
eCall	✓	✓	✓	✓	✓	✓

<b>INSTRUMENTS &amp; CONTROLS</b>	<b>ICON</b>	<b>ICON TECH</b>	<b>DESIGN</b>	<b>GR SPORT</b>	<b>TREK</b>	<b>EXCEL</b>
4.2in colour TFT multi-information display	✓	✗	✗	✗	✗	✗
7in colour TFT multi-information display	✗	✓	✓	✓	✓	✓
Colour head-up display	✗	✗	✗	✓	✗	✗
Headlamp levelling (manual)	✓	✓	✓	✓	✓	✓
Electronic parking brake	✓	✓	✓	✓	✓	✓
<b>COMFORT &amp; CONVENIENCE</b>	<b>ICON</b>	<b>ICON TECH</b>	<b>DESIGN</b>	<b>GR SPORT</b>	<b>TREK</b>	<b>EXCEL</b>
Electric Power Steering	✓	✓	✓	✓	✓	✓
Tilt and reach adjustable steering column	✓	✓	✓	✓	✓	✓
Power windows	✓	✓	✓	✓	✓	✓
Power back door with kick sensor (Touring Sports only)	✗	✗	✗	✗	✓	✓
Remote fuel lock release	✓	✓	✓	✓	✓	✓
Push-button start	✓	✓	✓	✓	✓	✓
Simple Intelligent Park Assist (Hatchback & Touring Sports)	✗	✓	✓	✓	✗	✓
Reversing camera	✗	✓	✓	✓	✓	✓
Automatic wipers	✗	✗	✓	✓	✓	✓
Automatic headlights	✓	✓	✓	✓	✓	✓
Auto-dimming rear-view mirror	✗	✗	✓	✓	✓	✓
Front and rear parking sensors	✗	✓	✓	✓	✓	✓
12v power outlet in cabin	✓	✓	✓	✓	✓	✓
12v power outlet in loadspace (Touring Sports only)	✓	✓	✓	✓	✓	✓
<b>AUDIO, INFORMATION &amp; NAVIGATION</b>	<b>ICON</b>	<b>ICON TECH</b>	<b>DESIGN</b>	<b>GR SPORT</b>	<b>TREK</b>	<b>EXCEL</b>
Audio system with six speakers, DAB/AM/FM radio, Aux socket and USB port	✓	✓	✓	✓	✓	✓

Toyota Touch 2: multimedia system with 8in touchscreen control	✓	✓	✓	✓	✓	✓
Toyota Touch 2 with Go: 8in touchscreen control for audio and information with satellite navigation and voice activation	✗	✓	✓	✓	✓	✓
Bluetooth	✓	✓	✓	✓	✓	✓
Smartphone integration with Apple CarPlay and Android Auto	✓	✓	✓	✓	✓	✓
Steering wheel mounted audio/Bluetooth/ACC controls	✓	✓	✓	✓	✓	✓
JBL premium audio system	✗	✗	✗	✗	✗	Opt 2.0 Hybrid
<b>VENTILATION</b>	<b>ICON</b>	<b>ICON TECH</b>	<b>DESIGN</b>	<b>GR SPORT</b>	<b>TREK</b>	<b>EXCEL</b>
Automatic dual-zone air conditioning	✓	✓	✓	✓	✓	✓
Pollen filter/clean air filter	✓	✓	✓	✓	✓	✓
<b>SECURITY</b>	<b>ICON</b>	<b>ICON TECH</b>	<b>DESIGN</b>	<b>GR SPORT</b>	<b>TREK</b>	<b>EXCEL</b>
Remote central double locking with deadlocks	✓	✓	✓	✓	✓	✓
Alarm	✓	✓	✓	✓	✓	✓
Smart entry	✗	✓	✓	✓	✓	✓
<b>SEATING, UPHOLSTERY &amp; TRIM</b>	<b>ICON</b>	<b>ICON TECH</b>	<b>DESIGN</b>	<b>GR SPORT</b>	<b>TREK</b>	<b>EXCEL</b>
Black fabric upholstery with grey stitching	✓	✓	✓	✗	✗	✗
Black part-leather upholstery with grey stitching	✗	✗	✗	✓	✗	✗
Brown and grey fabric upholstery with grey stitching	✗	✗	✗	✗	✓	✗
Black leather upholstery with red accents	✗	✗	✗	✗	✗	✓
Sport front seats	✗	✗	✗	✓	✗	✓
Heated front seats	✓	✓	✓	✓	✓	✓

Heated rear seats – Saloon	✓	✓	✓	-	-	-
Power driver's seat lumbar support	✓	✓	✓	✓	✓	✓
60:40 folding rear seat	✓	✓	✓	✓	✓	✓
Leather-trimmed steering wheel and gear knob	✓	✓	✓	✓	✓	✓
<b>EXTERIOR</b>	<b>ICON</b>	<b>ICON TECH</b>	<b>DESIGN</b>	<b>GR SPORT</b>	<b>TREK</b>	<b>EXCEL</b>
16in silver alloy wheels	✓	✓	✗	✗	✗	✗
17in machined alloy wheels	✗	✗	✓	✗	✗	✗
17in two-tone diamond cut alloy wheels	✗	✗	✗	✗	✓	✓ Touring Sports
18in two-tone diamond cut alloy wheels (Hatchback only)	✗	✗	✗	✗	✗	✓
17-inch black and machined alloy wheels	✗	✗	✗	✓ Touring Sports	✗	✗
18-inch black and machined alloy wheels	✗	✗	✗	✓ Hatchback	✗	✗
Electrically adjustable heated door mirrors	✓	✓	✗	✗	✗	✗
Electrically adjustable, retracting, heated door mirrors with reverse tilt function	✗	✗	✓	✓	✓	✓
LED headlights	✓	✓	✓	✓	✓	✗
Bi-LED headlights with lightguides	✗	✗	✗	✗	✗	✓
LED daytime running lights	✓	✓	✓	✓	✓	✓
LED rear combination lights with light guides	✓	✓	✓	✓	✓	✓
Front fog lights	✓	✗	✗	✗	✗	✗
LED front fog lights	✗	✓	✓	✓	✓	✓
Shark fin antenna	✓	✓	✓	✓	✓	✓
Dark-tinted rear privacy glass	✗	✗	✓	✓	✓	✓

Panoramic roof with power sunshade (not available on 1.8 Touring Sports)		x	x	Opt	x	x	Opt
Metallic/pearlescent paint		Opt	Opt	Opt	Opt	Opt	Opt
Bi-tone paint finish (Hatchback only)		x	x	x	Opt	x	Opt
Space-saver spare wheel	Hatchback	Opt	Opt	✓ 2.0	x	-	x
	Touring Sports	✓	✓	x	x	x	✓ 2.0
	Saloon	✓	✓	✓	-	-	-
Tyre repair kit	Hatchback	✓	✓	✓ 1.8	✓	-	✓
	Touring Sports	Opt	Opt	✓	✓	✓	✓ 1.8
	Saloon	x	x	x	-	-	-

ENDS

Ref:210713M