

Styling Design of New Accord

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ABSTRACT

With “Excels in All Areas” as the grand concept, the new Accord was developed as a family sedan that could be used comfortably, and with pleasure and pride, every day.

Organized around the themes “Exhilaration,” “Advancement,” and “Superior Craftsmanship,” the design realizes a comfortable space and a strong presence as a family sedan. The exterior design was based on the concepts “Exhilaration” and “Condensation,” while “Luxurious Modern Interior” served as the concept for the interior design. Interior and exterior colors and interior fabrics were developed to further highlight these characteristics.

1. Introduction

Successive Accord models have continued to find favor with large numbers of users due to many characteristics including reliability and safety, and customer satisfaction with their Accords is uniformly high. In the U.S. market in particular, the popularity of the Accord has grown to the extent that the vehicle can be seen as synonymous with the category “midsize family sedan.” For the development of the 9th-generation Accord, a survey of U.S. family sedan users was conducted to study the patterns of vehicle use. By contrast with the results of previous surveys showing that sedans were mainly used for commuting to and from work, this study indicated an increase in the frequency of sedan use for family outings on the weekends rather than the use of minivans.

This background picture indicated that the rising price of gasoline and increasing environmental awareness had resulted in a greater number of customers making judicious use of sedans based on their good fuel efficiency. As they used their sedans with greater frequency, users were saying that they wanted a more comfortable interior space and increased ease of use, and suggesting that the vehicles were slightly too large. These were also valuable hints for the development process.

The design team set the realization of “Excels in All Areas,” which would offer the maximum pleasure to users as its grand concept. Seeking to delight customers with a level of luxury in excess of expectations based on the price of the vehicle, the team set itself the target of expressing true value and realizing a family sedan that would be globally popular

and actively desired by customers through the creation of the optimal package and a design that maintained a careful focus on even the smallest details (Fig. 1).



Fig. 1 Grand concept

2. Design Goals

The design of the new Accord was developed on the basis of three themes: “Exhilaration,” “Advancement,” and “Superior Craftsmanship.”

Under the theme “Exhilaration,” designers aimed at a further evolution of the large cabin space that is one of the strengths of the Accord. The design of the space sought not merely to create a sense of roominess, but also to realize a bright space with a wide field of vision, one that users would find comfortable and pleasurable every day.

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Under the theme “Advancement,” the aim was to make the vehicle a pleasure to use by providing user support via more advanced technology, and creating a vehicle that users would find intuitively easy to understand and easy to use. The design aimed for a new expression of value by incorporating ease of movement and operation as an aspect of design at the same time as expressing new technology via new design.

Under the theme “Superior Craftsmanship,” designers aimed to focus on even the smallest details of the design in order to create a sense of real, crafted quality, producing a car that the owner could be proud of and that engendered a feeling of satisfaction and fulfillment.

3. Package Layout

The concept for the package layout was to create an exhilarating and efficient package incorporating an optimized body framework to respond to fuel efficiency demands and other environmental considerations, and carrying over the Accord’s comfortable cabin space while realizing new value for the sedan class.

Seeking to realize a feeling of “Exhilaration,” the design team aimed to achieve a wider forward field of vision offering a sense of freedom and increased cabin comfort by rounding the front windshield and moving the front pillars forward, in addition to reducing the pillar diameters and modifying their cross-sectional shape. The wheelbase was shortened by 25 mm against previous Accords while modification of the passenger seating position and the form

of the seats increased knee space by 0.5 mm, resulting in a comfortable cabin space with a superb level of space.

With the aim of realizing a sense of exhilaration and new level of sedan value, the rear passenger seats were moved inward by 15 mm each side to produce a V-shaped layout, and the center pillars were moved outwards, creating a layout offering the sense of a broad field of vision from the rear seats as well (Fig. 2).

To realize a sense of “Advancement,” vehicle aerodynamic performance was refined through a reexamination from the framework up in order to increase fuel efficiency. The air flow around the sides of the vehicle body was optimized by narrowing the overall body, extending the surrounds of the center pillars outwards, and moving the front pillars and the rear pillars inwards to produce a barrel-shaped form. The total height of the vehicle was lowered by 10 mm without sacrificing cabin space, reducing the front projected area and increasing aerodynamic performance.

With regard to the size of the body, the design sought to increase fuel efficiency by reducing weight and realizing the optimum easy-to-handle mid-size package for a family car by shortening the wheelbase and reducing the front-rear overhang to shorten the total length by 90 mm (Fig. 3).

Under the theme “Superior Craftsmanship,” designers worked to give users the sense of a high level of product quality by realizing an interior space with sufficient room for four adults to relax in comfort, and applying detailed attention even to the trunk floor in order to produce a flat surface with minimal irregularities.

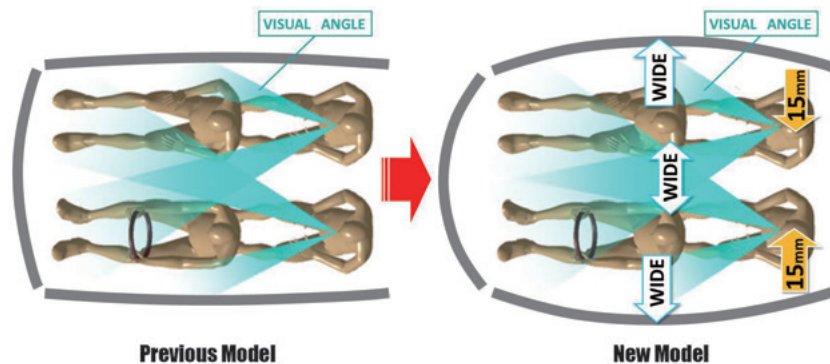


Fig. 2 Passenger layout

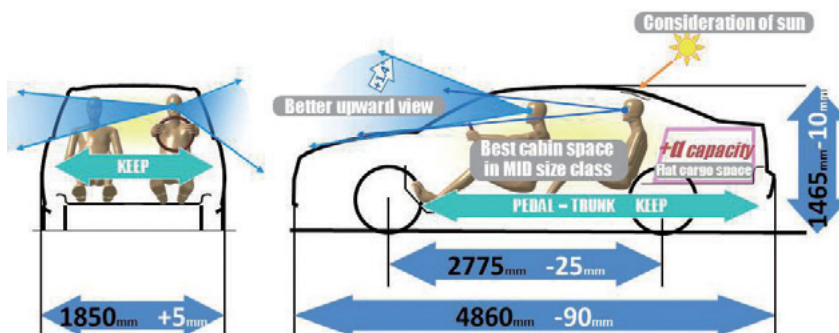


Fig. 3 Package layout

4. Exterior Design

The exterior design of the new Accord is styled to project a dynamic and intelligent presence, based around a concept of “Exhilaration and Condensation” (Fig. 4). “Condensation” in this context refers to the vehicle’s dynamic and deeply sculpted form, powerfully tensed and with a strong continuity between all the body surfaces.

To realize a feeling of “Exhilaration,” the designers worked to create a sense of the width and comfort of the cabin space even from outside the vehicle. They achieved this by making the front windscreen area look wider through the use of narrow front pillars and low belt lines in addition to using three-dimensionally curved glass in order to emphasize the image of overall rounding.

To achieve a feeling of “Advancement,” the vehicle incorporates a new wide and strong-looking front face that extends horizontally, employing a configuration with continuity between the front grille and the headlights (Fig. 5). The vehicle uses projector-type headlights as standard, while the luxury Touring model employs LED low beams

for the first time, in a design that offers a sense of strength and advancement (Fig. 6). The bottom edges of the front and rear bumpers are designed to produce the impression that metal-plated bars are floating, aiming for a new light and sporty expression (Fig. 7).

To realize a sense of “Superior Craftsmanship,” the body framework was created on a horizontal base line extending from the nose to the trunk in order to present a powerful dynamism and a traditional sedan-like body feel. The areas surrounding the vehicle’s cabin appear large, and this might have given an impression of instability due to the apparently high center of gravity and might have emphasized the smallness of the body, but the continuity of the form extending from the nose to the cabin and from the cabin to the trunk has given the vehicle a solid form with a sense of integration. Additionally, the thick and powerful hood and trunk forms present a luxury vehicle feel.

The sides of the body present two sharp character lines formed from deeply sculpted negative planes, and the extended forms of the powerful front and rear fenders create a dynamic, high-quality and three-dimensional surface that transforms from negative to positive planes (Fig. 8).



Fig. 4 Exterior design concept



Fig. 5 Front design



Fig. 6 LED headlight



Fig. 7 Bumper design



Fig. 8 Final rendering

From the rear, the narrowed plane extending from the cabin to the trunk and the overhanging form of the rear fender emphasize a vehicle posture in which the tires appear to strongly grip the ground, and present a luxury vehicle feel. In addition, the large trunk lid lights and the metal-plated garnish strip connecting the rear combination lights emphasize the vehicle's basic side styling, expressing a sense of presence based on width and stability (Fig. 9).



Fig. 9 Rear design

5. Interior Design

Organized around the concept “Luxurious Modern Interior,” the interior design of the new Accord sought to provide a pleasant and exhilarating space, an easy-to-see and easy-to-use interface, and a clear sense of high quality (Fig. 10).

To realize “Exhilaration,” the design theme was to maximally emphasize the horizontal width of the cabin via the symmetry and extension to the sides of the instrument panel. A sense of exhilaration was expressed with consideration of a balance of structural volumes that would help prevent vehicle occupants from feeling exposed while the vehicle is in motion. Another design theme was the imparting of a sense of freedom around the level of occupants' shoulders by means of interior styling in which the surface skin of the door linings extends to the upper surfaces (Fig. 11).



Fig. 10 Interior design concept

“Advancement” was realized by arraying the displays in the upper area of the instrument panel, minimizing the angle in the driver's line of sight at which the driver looks down and shifts resulting in easier-to-read displays. The vehicle's operational controls are positioned so as to make them more accessible to vehicle occupants, and the air conditioning, audio, and other controls are separated by function, making the operational interface easier to understand and easier to use (Fig. 12).

A large, eight-inch center display is positioned in the middle of the instrument panel to display a variety of information, including fuel consumption and audio information, and information to provide support for vehicle operation. In addition, the display screens employ simple graphic design to create a functional and advanced interface that enables information to be taken in instantly while driving.

New “On-demand Audio” has been used for the audio switches. This consists of a touch panel monitor designed for easier operability that employs an interface design tailored for intuitive operation and displays only the necessary switches at the necessary time and at the optimum size. This design sought both to realize a sense of “Advancement” and to increase ease of use (Fig. 13).



Fig. 11 Interior design



Fig. 12 Interface concept



Fig. 13 On-demand audio

The area around the console has also been designed to increase ease of use by newly positioning a USB jack in an easily accessible front tray to make it possible for vehicle users to easily use portable devices.

To realize “Superior Craftsmanship,” the sense of quality of the interior as a whole was increased through the application of soft padding to the upper sections of the instrument panel and the door panels, and the effective use of ornamentation in areas that would tend to attract the attention of vehicle occupants. Designers sought to increase ease of recognition and achieve a sense of high quality by ornamenting functional components with chrome plating that would reflect light both during the day and at night (Fig. 14).

Design features including the use of large and bold ornamentation at the sides of the console present the feel of a midsize sedan. The position of the rear outlet has been moved upwards to increase the comfort of rear seat passengers (Fig. 15).

For the design of the seats, stitching and other features have been employed more effectively than in previous Accords in order to increase the sense of quality. The center of the seat backs is designed as a concave negative form, offering occupants a better sense of fit (Fig. 16).



Fig. 14 Chrome plating



Fig. 15 Console design

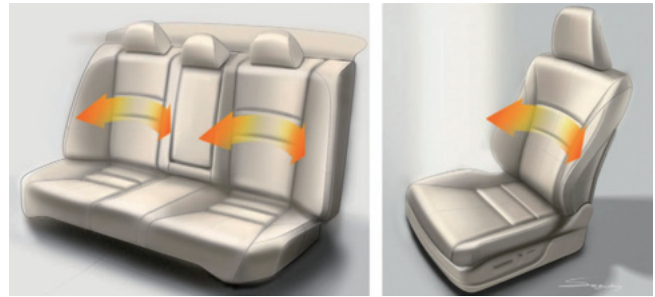


Fig. 16 Seat design

6. Color and Fabric Design

6.1. Exterior Color

Based on the concept “LIQUID TENSION COLOR,” designers aimed for textures with a sense of tension and firmness like the surface of a liquid (Fig. 17). The lineup features a total of eight colors including four new: two “character colors” created from combinations of relaxing chromatic colors suggestive of the image of family sedans, and two standard colors that have been evolved to suit the times.

The “character colors,” HEMATITE M. and CHAMPAGNE FROST P., combine minute amounts of dichromatic pearl pigments with fine-grained brightening agents to increase the complexity of the shades. CHAMPAGNE FROST P. suggests a soft blue tone amidst bright ivory, while HEMATITE M. was created with gray as the base color underlying a surface green tone.

The evolved standard colors MODERN STEEL M. and OBSIDIAN BLUE P. were designed based on extensive consideration of trends in colors used in previous models and examination of tones. To realize a sense of high quality in MODERN STEEL M., finer aluminum flakes than conventionally used were added, and the direction of previous trends was followed by adding a red tone and reducing the level of brightness, thus producing a stylish ambience and a sense of powerful three-dimensionality. The design of OBSIDIAN BLUE P. considered how to realize a blue tinge and a sense of depth, and employed an interference pearl of



Fig. 17 Exterior color concept

greater intensity than usual to realize a beautiful chromatic transition from a dark base color with a feeling of depth to a blue tone with vibrant highlights (Fig. 18).

The refinement and evolved textures offered by both the new character colors and the new standard colors serve to further highlight the feeling of presence produced by the styling.

6.2. Interior Color

Around the concept of “Premium Harmony,” the interior color design coordinated internal fittings for three different possible color choices - a bright, elegant ivory, gray, and black - in order to create a sense of integration (Fig. 19).

Muting the intensity of the color of the ivory and gray internal fittings to a greater degree than has conventionally been the case has heightened the clean and elegant

impression of the interiors. In both cases the standard colors have been revived.

The three color choices for the internal fittings are offered in the basic grades (LX, EX, and EXL), while the newly added SPORTS grade offers two colors, with interior fittings restricted to black or ivory (Fig. 20).

To give vehicle occupants a sense of security and high quality, soft pads have been employed on doors and other parts with which occupants will come into physical contact, in order to enhance a soft feel and texture. Stitching has been increased to further heighten the sense of quality, and small areas of lustrous silver ornamentation and metal platings are used throughout the interior in an elegant and luxurious coordination of materials.

Designers sought to use a leather-grain pattern throughout the interior to realize a sense of high quality and soft textures, and materials that would offer the natural texture and three-dimensionality of real leather were developed for this purpose. To increase the integration of the interior textures, simple grain configurations were used that took differences in the methods of manufacture of parts into consideration (skins are wound onto the instrument panel and upper sections of the door linings, while etching is used for other parts). A total of three types of interior ornamentation have been employed, composed of coatings used to increase the sense of quality, and films of two patterns. Variations on the latter are able to be produced using the same molds.

METAL MESH, used in the LX-grade vehicles, applies a metallic coating to a fine-meshed, light-diffusing grain pattern to realize high-brightness metallic ornamentation that does not rely exclusively on the quality of the coating material.

SELENITE BROWN, used in the EX- and EXL-grade vehicles, is a film ornamentation that combines a pattern suggestive of mineral crystals and a dark brown metallic color to realize a texture, neither wood grain or metallic, which offers new value. FULL GLOSS DOT BLACK, used in the Sports-grade model, is a film ornamentation featuring small silver dots on a base of full-cloth fabrics that give an impression of sharpness to realize a sense of detail and elaboration.

For the seat trim fabrics, the LX-grade uses double russel, while the EX-grade uses velour tricot. The fabrics have a thick feel and offer a sense of security. A soft-weave

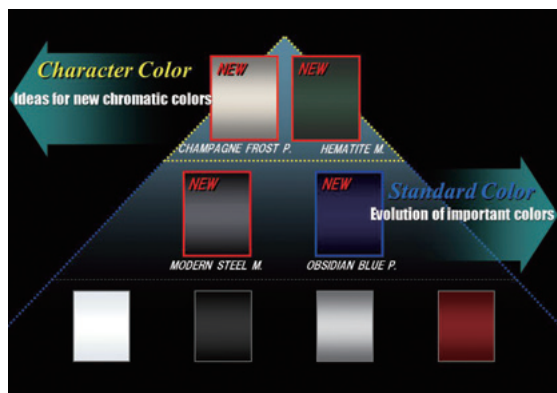


Fig. 18 Exterior color line-up



Fig. 19 Interior color concept

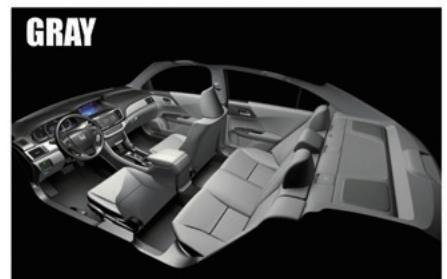
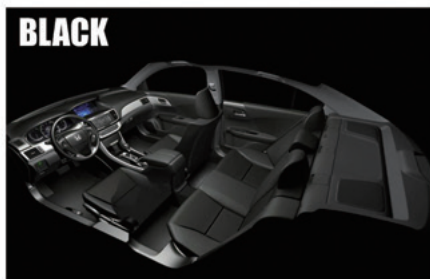
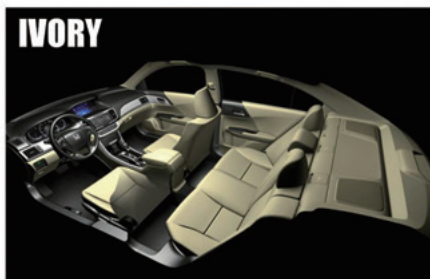


Fig. 20 Interior color variations

fabric that offers a heightened impression of sharpness is used in the Sports-grade model. Perforation rather than the previous gathering is used for the leather in the EXL-grade vehicle to give a sense of lightness. In addition, the use of gradated perforations that trace the design of the broad seat pattern imparts a sense of tempo to the interior as a whole (Fig. 21).

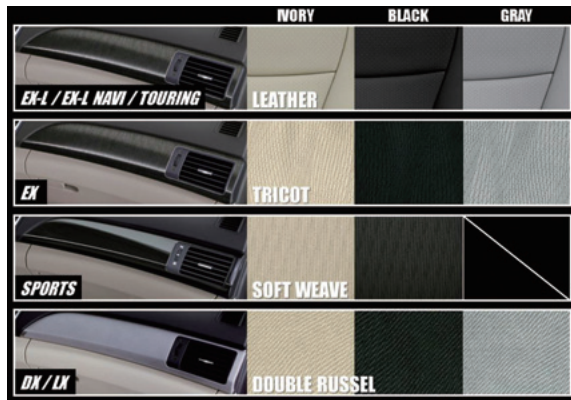


Fig. 21 Fabric design

7. Conclusion

The successive Accord vehicles have been developed to reflect the changes in the social environment and customer values with the times, and Accords have been chosen and loved by a large number of customers over the years.

“Excels in All Areas” was established as the grand concept for the new Accords, representing the vehicle’s ninth generation, in order to respond to changes in customer values and expectations originating in significant changes in the social atmosphere. Designers set out to create a family sedan that could be chosen willingly, and that was competitive around the world.

We believe that the design of the new Accords is able to optimally satisfy an even greater number of users due to its embodiment of three themes: “Exhilaration,” making it possible to use the vehicles comfortably and enjoyably every day; “Advancement,” making the vehicles easy to understand and enjoy intuitively through more advanced technologies; and “Superior Craftsmanship,” aiming for the realization of a sense of real, crafted quality through a focus on even the smallest details of the design.

It is our hope that in the future, no matter how the social environment may change, the Accord will continue to evolve in the quest to bring society, people and vehicles into harmony, and that the vehicle will go on being loved by its users.

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