



**Managing Director & General Manager,
Vehicle Division
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The Vehicle Division is striving to produce compact cars in an environment-friendly manner through such measures as those aimed at increasing recycling activities related to manufacturing processes and reducing volumes of environmentally harmful substances.

In view of the rising demand for environment-friendly automobiles, the division is dedicating itself to the goal of developing and manufacturing cars in a way that is in harmony with the global environment.

The Vehicle Division is responsible for producing the YARIS (sold as Vitz in Japan), a Toyota-brand compact car designed for strategic worldwide marketing. The division operates two manufacturing lines, which assemble two YARIS models as well as Corolla models (sold as Sprinter CARIB in Japan). Since we began supplying Publica models in 1967, we have handled the full range of compact car production operations for the Toyota Group, including design, manufacturing, and inspection activities.



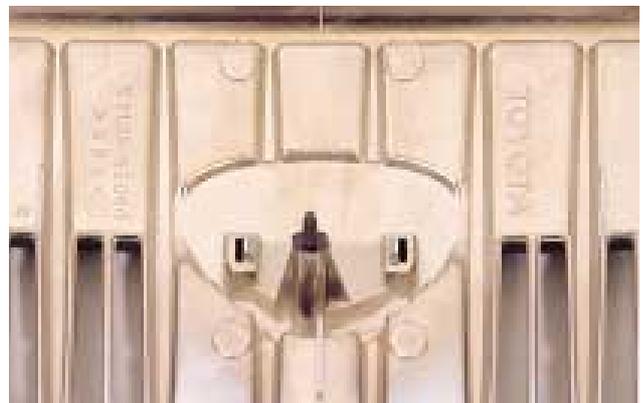
▲ Assembly of the YARIS (Vitz)



Development and Design

Designs That Reduce the Use of Environmentally Harmful Substances

We design our vehicles and components with an eye to ensuring that they can be manufactured without using such environmentally harmful substances as lead and mercury. Examples of related design changes include a shift from lead in battery terminals to steel and from lead in seatbelt sensors to brass. To reduce the use of lead-containing solders, the Vehicle Division has made thorough efforts to minimize the need for soldering processes. Aiming to facilitate materials recycling after vehicles are scrapped, we mark each component to identify the type of plastic or rubber from which it is made.



▲ Material identification marking on the front grill of the Vitz Clavia

Development of a Plastic Window That Helps Lower Vehicle Weights

The polycarbonate windowpanes developed by our division offer superior shock resistance and safety and can be easily manufactured in different shapes. The windowpanes allow for a substantially greater degree of freedom in designing automobile exteriors.

As the new windowpanes are 30% to 40% lighter than they would be if made from glass, they are facilitating the reduction of vehicle weights. Having been used for the sunroofs of the Toyota Celica, the new windowpanes are expected to be in increasingly widespread demand.



▲ The sunroof of the Celica

Production

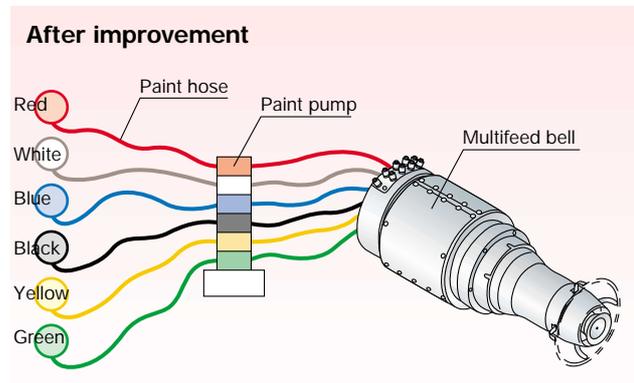
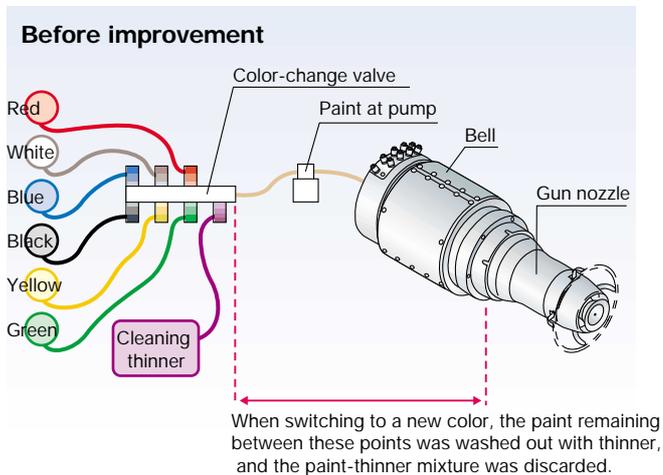
Reducing Environmentally Harmful Substances from Vehicle Painting

Previously, when a YARIS vehicle paint job was completed, the paint remaining in the hose between the supply pump and the spray gun was flushed using thinner, and the resulting effluent was disposed of as a waste product. However, the introduction of multifeed, bell-type spray-gun units (see illustration) has eliminated the need to clean out the paint supply hose. As a result, the amount of paint and thinner required to paint an individual YARIS vehicle has been reduced by 0.19kg.

To further reduce the use of environmentally harmful materials, we have progressively shifted to such painting materials as chrome-free rust-resistant paint for fuel tanks, lead-free electrodeposit paint, and phosphorus-free degreasing agents.



▲Painting of a YARIS (Vitz) vehicle



Distribution and Recycling

Development and Introduction of Innovative Recycling System

Previously, the manufacture of CSE moles for interposition between window panes and vehicle bodies generated vinyl chloride resin waste materials. The Company has developed a recycling process that involves the particulation of the waste material, which is then mixed together with new resin before its use. The introduction of the new recycling process has eliminated what was previously 2,130kg of waste per month.



▲The CSE mole for a rear window (the outer black portion)