







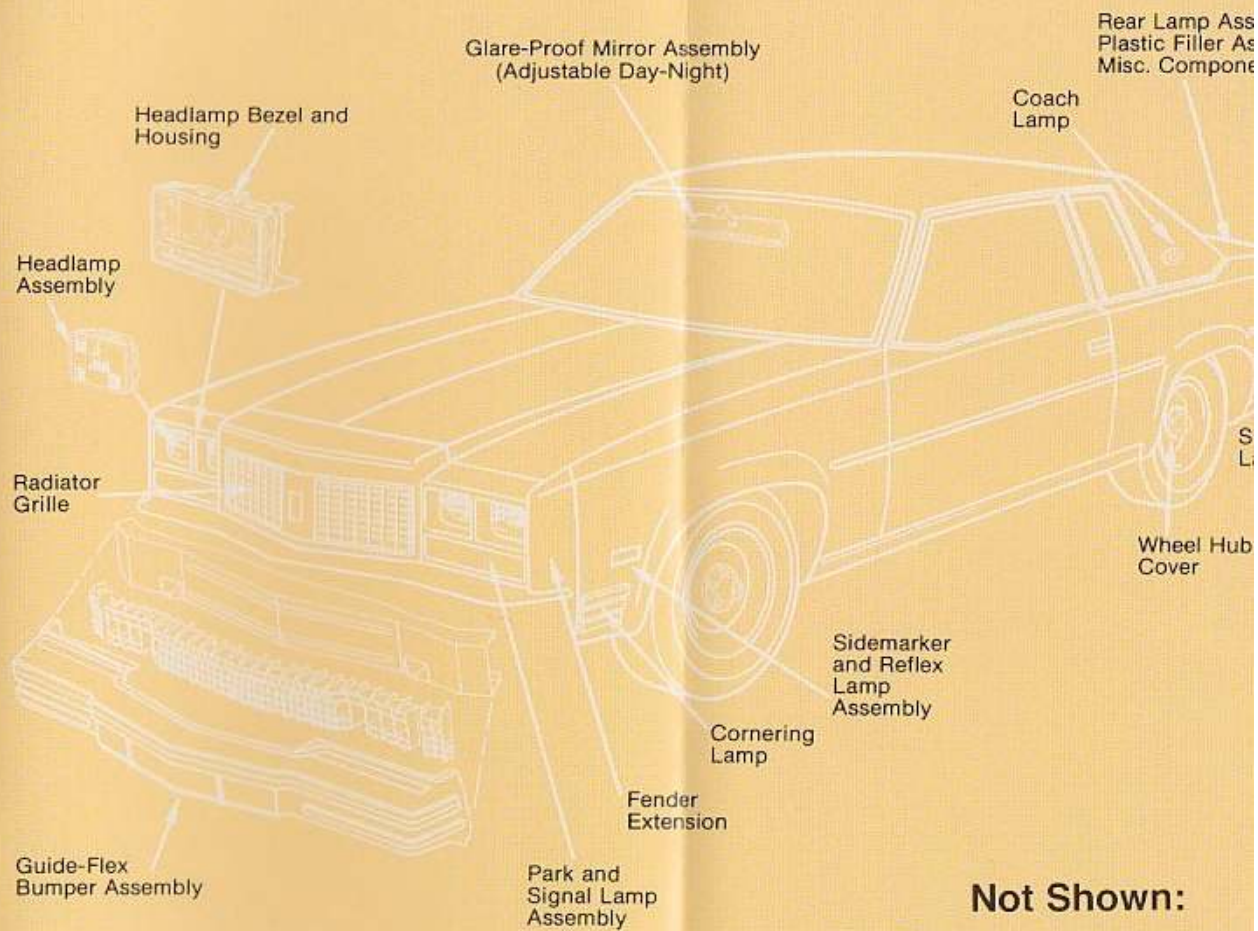


New lighting systems are evaluated on Guide's specially-equipped engineering test cars.


Guide

  **Guide**



Guide's distinctive and colorful identification graphics have many variations for different applications.

GUIDE PRODUCTS FOR 1979 MODELS



Not Shown:

- | | |
|---|---------------------------------|
| Bumper Rub Strips | Metal Stampings |
| Guide-Matic Electronic Headlight Beam Selectors | Molded Vinyl and Sponge Gaskets |
| Headlamp Turn-off Time Delays | Reflex Reflectors |
| Lighted Visor | Twilight Sentinel |
| Vanity Mirrors | Electronic Light C |
| | Various Plastic Pa |

 **Guide**
 Division of General Motors Corporation
 P.O. Box 2459, Anderson, Indiana 46011



Die setter King Huntzinger examines a plastic lens for an auto tail lamp, similar to those in foreground. The three-color lens is molded in one piece in this big injection molding machine.

The division is headquartered in Anderson. Products manufactured in Anderson include molded and plated plastic parts, miscellaneous lamps, rearview mirrors, lighted vanity mirrors, lighting controls, stampings and other items.

The Guide headlamp manufacturing plant is at Monroe, where all Guide headlamps are made. They are original equipment on all new General Motors passenger cars and trucks and thousands of other domestic and overseas vehicles, and are available as replacements. Prior to construction of the Monroe plant in 1974, all Guide headlamps were made in Anderson.

Like many other General Motors divisions, Guide began inauspiciously and rose to leadership in its field because it had that rare combination of enthusiasm and new ideas. Today it is one of the world's leading designers and producers of automotive parts.

Since its introduction of the first electric headlamp in 1908, Guide has either developed or had a leading role in every major lighting development for motor vehicles. The latest is the tungsten-halogen headlamp introduced on many 1979 GM passenger cars. The new lamps double the light intensity of previous headlamps on upper beam.



A sample piece of reaction injection molded bumper fascia is given a test for tensile strength and elongation by project engineer Rachel Layton.

The Guide story started nearly a hundred years ago when Hugh J. Monson was born in an Ozark Mountain cabin. He left home early in life and went to Columbus, Ohio, becoming a porter at the old Southern Hotel.

He then drifted through a variety of jobs, including a stint at the John W. Brown Lamp Company—his first contact with carriage lamp manufacturing. Later, while working at the Badger Brass Company at Kenosha, Wisconsin, he met two other equally ambitious young men, William F. Persons and William Bunce.

The three became friends and decided to go into business for themselves, to repair lamps for carriages and automobiles, which were beginning to appear in large numbers. They picked Cleveland, Ohio, which was the heart of the automotive accessory trade, but was without a lamp concern.

Pooling their money, they raised \$300 capital to form the Guide Motor Lamp Company. The year was 1906 and the plant location was a small room on the fifth floor of the Graves Building.

At first, the trio concentrated on the repair of acetylene lamps of the day. The next step was manufacturing. With electricity being increasingly used for home lighting, they thought it could also be used for auto lamps.



In this headlamp manufacturing process, gas-fed flames at a temperature of 2,300 degrees Fahrenheit are used to seal metal ferrules into the glass reflectors of sealed beam units. The ferrules seal openings in the reflectors and provide means of making electrical contact to the filaments.

In 1908, they produced and marketed the first successful electric headlamp. Orders poured in, and the business grew steadily. In 1913, the young firm was incorporated as the Guide Motor Lamp Manufacturing Company, with Monson at the head.

Within the next seven years, the company had built two, successively larger buildings to house the growing manufacturing operations in Cleveland. In August, 1928, as a result of negotiations between Guide and the growing General Motors Corporation, Guide became part of GM's Delco Remy Division in Anderson.

In Anderson, Guide took over a Delco Remy plant on 25th Street and Arrow Avenue. That building, with less than an acre of floor space when occupied by Guide in 1928, was the start of the Guide building complex which now fronts Pendleton Avenue.

On January 1, 1929, Guide's ties with Delco Remy were broken and Guide became a new division of General Motors. It was named "Guide Lamp Division," with plants

in Anderson and Cleveland. Guide expanded rapidly in Anderson, and in 1930 the Cleveland plant was phased out.

In 1936, Guide acquired a plant in Syracuse, New York. It was identified as the Brown-Lipe-Chapin plant of Guide, turning out lamps, bumper guards and hubcaps for GM assembly plants in that part of the country. B-L-C was part of Guide until 1942, when it became a separate division of GM to manufacture machine guns.

During World War II, Guide produced most of the lighting equipment used on military vehicles. In addition, the division made millions upon millions of cartridge cases in five different sizes—part of the ammunition for heavy guns, three different kinds of machine gun barrels, M-3 submachine guns, water-jacket sleeves for aircraft engines, and spinner-noses and adapters for fighting planes.

In a top secret project in 1942, Guide produced in one month a record 1,000,000 single-shot, .45 caliber "Liberator" pistols used overseas in clandestine operations. According to Robert Koch, author and former U.S. Intelligence agent, the gun "ranks high as a very real example of American inventiveness and ingenuity during World War II and is definitely a 'one-of-a-kind' weapon with a background of intrigue."



Reaction injection molding operators Steve Long, left, and Bruce Hatfield trim a plastic Guide-Flex bumper fascia, as operator Roger Cuneo removes another fascia from the molding machine.

After World War II, Guide continued its growth with new facilities and new products, particularly in plastics. As a result of the addition of many non-lamp items, the word "Lamp" was dropped from the divisional name in 1975.

Guide's introduction of plastic lenses on rear lamps in 1947 has led to many other plastics applications. Guide today uses more acrylic plastic than any other molder. In addition, Guide uses vast quantities of other plastics.

Latest plastic product is the Guide-Flex energy management system. For example, Guide-Flex energy-absorbing bumpers are lightweight, noncorrosive and damage resistant, compressing on impact and then returning to their original shapes.

Guide products have worldwide acceptance. In addition to General Motors and other domestic passenger car and truck makers, many overseas manufacturers are among Guide's customers.



Senior project engineer Canby Willson demonstrates the flexibility of "sputtered" chrome plating on an experimental plastic part. New, innovative method of chrome plating, developed by Guide, may revolutionize the finish of flexible injection molded components.



Look-alikes don't work alike

These look-alike sealed beam headlamps give quite different results. The unit at left, with a tungsten-halogen inner bulb, is twice as bright as conventional unit at right. High-beam lights for each vehicle with the new headlamps from General Motors' Guide Division will total 150,000 candlepower in intensity, compared with the previous limit of 75,000 candlepower. New lamps are interchangeable with regular units now in use.

Guide's new tungsten-halogen headlamps were announced in news articles in newspapers and other publications throughout the world. The above item appeared in *Automotive News*, the weekly newspaper of the industry. Guide special tester Jan Chamberlin is pictured.

The Guide management team is headed by Philip B. Zeigler, general manager. Top staff executives are Anthony P. Andreatta, chief engineer; Boyd L. Bonner, general sales manager; Meredith M. Church, personnel director; Richard L. Gross, works manager; Earl F. Marmon, manufacturing manager; William R. Merritt, director of public relations; John A. Nelson, divisional comptroller; Earl P. Simpson, director of reliability; J. Warren Stidham, director of purchasing and production control; and Gary L. Woodall, director of production engineering. John W. Yount is manager of the Guide plant at Monroe.

Guide and its people are proud to be part of the General Motors family. They are proud of their accomplishments, of their reputation for innovative, quality products, and for their on-time delivery to customers. And, as they move forward during the Golden Milestone Year from the progress of the past, they look forward to the promise of the future.