The Chrysler LeBaron and Dodge Diplomat are two new mid-size cars with many fine luxurious exterior and interior appointments. Beneath the skin they also offer plenty of new technical features as well as major carryover systems and components.

We'll cover all the new highlights and major features to acquaint you with them and to answer many of the questions you might have concerning these new models.

We're sure once you get acquainted with LeBaron and Diplomat, you'll agree these two new automobiles carry on Chrysler Corporation's excellent engineering and service standards.
LeBaron and Diplomat are available in two-door and four-door models and share the same chassis structure.

**FRONT SUSPENSION**

LeBaron and Diplomat are equipped with the isolated transverse torsion-bar front suspension system which provides the ride and handling characteristics approaching full-size cars. This integral torsion-bar spring-strut system was developed initially for Aspen and Volare models, and combines the function of both a spring and a control arm strut in one torsion bar. Improved noise isolation is accomplished by the placement of the torsion bars transversely across the front of the crossmember. These bars use rubber mounts between the crossmember and the front chassis structure. A front sway bar mounts to the crossmember to minimize vehicle roll during cornering.

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**A BRIEF COMPONENT REVIEW**

The isolated front crossmember, commonly referred to as the "K" member, serves two purposes. One, it completes the chassis structure, and two, it provides support for all the front suspension components.

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*Fig. 1 — Front suspension assembly features isolated transverse torsion bars*
RUBBER ISOLATORS ABSORB ROAD NOISES
Rubber isolators separate the crossmember from the front body frame rails. This prevents road noise from being transmitted from the "K" member to the front structure of the car. Each rubber isolator has two parts which fit into an elongated hole in the "K" member. One is mounted on top, and the other is mounted underneath with a single through bolt. This arrangement puts a cushion of rubber above and below the "K" member.

Fig. 2 — Rubber isolators at attachment points

TORSION BARS MOUNTED TRANSVERSELY
A great deal has been written concerning Chrysler Corporation’s isolated transverse torsion-bar front suspension system. We won’t repeat it here, but be sure to consult the Service Manual for detailed instructions on removal and installation. However, if a torsion bar is scraped or scratched during removal or installation, protect the bare areas with paint to avoid rusting.

INSTALLING SWAY BAR
The sway bar must be removed in order to replace torsion bars. Sway bar bolts have an epoxy thread coating which locks them into position when installed. Removal breaks this bond and the bolts cannot be reused. Be sure to install new coated sway bar bolts when reinstalling a sway bar. Torque all bolts to the correct specifications listed in the Service Manual.

SERVICE TIP — WEIGHT MUST BE ON WHEELS
When removing or installing the sway bar, always remember that the weight of the car should be on the wheels. Keep in mind that this bar is under tension when the suspension hangs free.

ADJUSTING FRONT SUSPENSION HEIGHT
Before taking any measurement, jounce the car to relieve any binding in the suspension. Front suspension on both sides is measured from the lower control arm pivot bushing to the floor. See your Service Manual for this specification. The maximum allowable side-to-side difference is 1/8". Front height adjusts by turning the adjustment bolts clockwise to increase height and counter-clockwise to lower the height. Incidentally, the adjustment for the left front suspension is on the right side of the chassis and vice-versa.

Fig. 3 — Measure front suspension height here

Fig. 4 — Turn bolts clockwise to increase height

BUMPER SYSTEMS
MEASURING BUMPER HEIGHT
Correct front suspension height is closely re-
Front suspension height affects bumper height. Front bumper height must meet Federal regulations and is very important in maximizing the effectiveness of the energy-absorbing units. Before you measure bumper height, be sure to first check the following factors: Vehicle should be on level surface, fuel tank should register Full, tires should be at their specified pressure, and the front suspension height should be correct.

Jounce the car to relieve any binding in the suspension which could affect the measurement. Take the measurement on both sides of the bumper from the top of the jack slot to the floor.

Rear bumper height is measured in the same manner as the front. Procedures concerning both bumpers are found in the Service Manual.

**REAR SUSPENSION**

The rear suspension isolation mounting on LeBaron and Diplomat eliminates all metal-to-metal contacts which could transmit road noise to the body structure. Let’s briefly review the components.

**REAR LEAF SPRINGS**

Mounted asymmetrically, the rear leaf springs have more spring length behind the axle than ahead of the axle. This mounting design provides a significant reduction in acceleration squat.

**RUBBER ISOLATORS REDUCE ROAD NOISE**

Iso-clamps mount the rear axle to the springs with rubber isolators surrounding the leaf springs. The rubber isolators prevent road noise and power train vibration from reaching the passenger compartment.

**OVAL FRONT SPRING-EYE BUSHING**

On each side of the vehicle, a rubber bushing joins the front portion spring-eye of the leaf spring to the body structure. These oval bushings reduce starting and stopping shocks as well as isolating noises and vibration from the body structure.

**SHOCK ABSORBERS**

The shock absorbers used in the rear suspension have an eye mounting at the top and a spike mounting at the bottom. Front shock absorbers have spike mountings on top and bottom. Although these shock absorbers appear to be identical to those used on Chrysler Corporation full-size cars, they cannot be interchanged due to different internal dimensions and valving. When servicing, remember vehicle weight...
should be on the wheels when the eye end nuts are tightened. Torque all shock absorber-mounting nuts to the proper specification.

BRAKES

RIVETED DISC BRAKE LININGS
Power front disc brakes are standard on LeBaron and Diplomat models. Disc brake assemblies feature riveted linings which reduce disc brake squeal.

Rear brakes are self-adjusting drum type and, again, service procedures are described in the Service Manual.

2 BODY FEATURES

INSTRUMENT PANEL
The cockpit-style instrument panel features full instrumentation and is designed for easy servicing from the driver's seat. But before you service the instrument panel, be sure to disconnect the negative battery cable. Then place the shift selector lever in Drive 1 for clear access to the cluster carrier bezel.

The cluster carrier bezel is held in place by four screws at the top and four screws at the bottom. No retaining clips are used at the top. After all the screws are removed, the bezel is easily removed by pulling it downward.

Fig. 8 — Cluster carrier bezel screws have easy access

EASY ACCESS TO INSTRUMENTS, CONTROLS
With the cluster bezel off, you have access to heater or air conditioning controls, radio, speedometer cluster, gauge cluster, headlights, wiper, and accessory switches.

Fig. 9 — Instrument clusters are serviced from the front

Fig. 10 — Light bulbs plug into circuit board

Both the speedometer cluster and the separate gauge cluster can be removed by taking out a couple of screws. Located behind the speedometer cluster are light bulbs which plug into a printed circuit board.
Access to headlight, wiper, and accessory switches is gained by removing the plastic modules attached to the cluster carrier assembly.

**FUSES AND RELAYS**

Fuses and relays are located behind the lower panel cover. A snap-in door allows you to reach the fuses and the turn signal flasher. If additional access is required, remove seven screws that attach the lower panel cover to the instrument panel. With the lower panel removed, you can reach the key warning buzzer, ignition key light timer, electrically heated rear window relay and timer, horn relay, and hazard warning flasher. All of these components plug in for easy replacement.

**How It Works**

The system has five operating modes: OFF, DELAY, LO, HI, and with the selector lever pressed down, WASH. The DELAY mode is set by positioning the selector lever between the OFF and LO detents. On the extreme left, or closest to OFF, the delay is the longest and to the extreme right, or LO, the delay is the shortest. Actually the delay can be from 2 to 15 seconds between wipes.

With the switch in the DELAY mode, the wipers make one complete cycle and return to the Park position. Then, depending on the switch delay setting, the wiping cycle is repeated.

**Digital Clock**

![Digital Clock Image]

Rocker switch feature for separate hour and minute reset.
A new optional quartz crystal digital clock is available on LeBaron and Diplomat models. This unique electronic digital clock was designed and built by Chrysler’s Huntsville Electronics Division, and uses a four-digit vacuum fluorescent display. This type of display is usually found in calculators and other types of electronic instruments.

**ILLUMINATES WITH IGNITION SWITCH ON**
The clock works continuously; however, the digital illumination appears only when the ignition switch is turned to run or accessory positions. The blue-green display has a bright daytime intensity and, when the headlight switch is on, a soft, night-time glow. The new clock has a convenient rocker switch for separate hour and minute reset.

**GLOVE BOX LOCATION**
Access to the digital clock is gained by removing the glove box. Three screws mount the clock to the glove box, with electrical hook-up through a snap-lock connector. Replacement is the only service due to its solid-state design.

Note: If you disconnect the battery or the snap-lock connector, the clock will automatically reset to 12:00 when the electrical hook-up is resumed.

**AIR CONDITIONING SYSTEM**
The familiar “blend air” air conditioning system is used in which heated and cooled air are blended together to produce the desired temperature.

Two main units — a blower assembly and an evaporator and heater assembly — contain the heating and cooling components which control air flow.

**SERVICING BLOWER MOTOR — AN INSIDE JOB**
You can reach the blower motor from the passenger side underneath the instrument panel. After removing the mounting nuts from the bottom of the housing, the blower motor drops out easily. This design makes servicing faster and quite a bit easier. The blower motor is encased in a sound-absorbing housing for quiet operation in all four blower speeds. Water seals protect the blower motor from moisture seepage which could cause corrosion damage.

**EVAPORATOR AND HEATER HOUSING**
A compact, lightweight, one-piece housing prevents condensate leakage inside the car. Condensation accumulating at the bottom of the housing is removed through a built-in drain. A molded rubber drain tube attaches to the drain by using a metal retainer clip. This rubber drain tube has two slots at the lower end to remove condensate from inside the housing. The slots also act to prevent any engine compartment air from entering the housing through the drain. It’s a good idea to check the condition of the drain tube regularly. Install a new one if it is deteriorated or missing.

**FOAM CUSHIONS ABSORB SOUND**
The entire assembly must be removed from the car to service the evaporator and heater core. Mounting studs have disc-shaped foam seals.
which seal off the stud openings to the engine compartment. Sound-absorbing foam cushions are used at the evaporator sealing plate and at the heater core tubes. Always reinstall the foam seals and isolators when reassembling to retain the sound-quieting and sealing features.

**BAFFLES IMPROVE AIR FLOW**
The housing lid and walls have baffles designed to improve heating and cooling balance and air flow to all outlets. The shape, size, and location of walls and baffles are designed to obtain maximum air flow with balanced distribution, and should not be altered for any reason.

**EVAPORATOR HAS FOAM BAND INSULATION**
The evaporator slides out easily from retaining grooves inside the housing. Two foam bands insulate the evaporator from its mountings, assuring quiet operation. Be sure to replace the insulation if you remove it while servicing the evaporator. When reinstalling, note the helpful guidelines on the foam bands which aid in lining up the grooves and the evaporator which assures a snug fit.

**HIGH-CAPACITY HEATER CORE**
For improved heating capability, all LeBaron and Diplomat models use a higher capacity heater core. You can easily identify the high-capacity heater core by examining the return tube which has two beads instead of one. It also uses a different foam band insulator marked HI CAP. A standard core insulating band will not fit snugly around the high-capacity core, and could affect the overall quiet characteristics of LeBaron and Diplomat.

**COMFORT FEATURE HAS OFF, MID, AND FULL POSITIONS**
A three-position manual control lever directs a portion of cool air through the heater outlets in Max A/C, A/C, and Vent modes. Cooled air or vent air is directed through both the upper air outlets and the floor outlets for additional passenger comfort.
The control lever has three positions: OFF, MID, and FULL. In the Mid and Full positions, the control lever raises the mode door about $\frac{1}{2}$" to 1", allowing cool air to flow through the floor outlets.

**LEVER MAY DANGLE FREELY**
Incidentally, the control lever is not loaded in the Heat or Defrost modes, so it moves or dangles freely. This occurs because the mode door is in the up position, directing full air flow through heat and defrost outlets.

**UPPER-LEVEL VENTILATION SYSTEM**
Upper-level ventilation is standard on non-air conditioned models. It allows outside air to travel through three outlets in the instrument panel, one on the passenger side and two in the center area. A water valve in the system cuts off water flow through the heater core while the upper ventilation system is in use. This prevents unwanted heat leakage into the passenger compartment.

**PASSENGER RESTRAINT SYSTEM**
LeBaron and Diplomat use the familiar Unibelt passenger restraint system on two-door as well as four-door models. Each model uses a different belt arrangement but both versions use the pendulum-type restraining mechanism. Two-door models have a roof rail belt retractor and seat guide loop, and four-door models have a pillar-mounted retractor and hanger.

**TENSION RELEASE FEATURE**
A new refinement to the system is the belt tension release mechanism, which retracts the webbing to keep it from being caught under the door and becoming soiled or damaged.

This feature is operated by a spring-loaded button located in each front door opening (B-pillar). The button operates a cable connected to the tension reliever cam in the retractor mechanism. When the door opens, the button pops out, the cam disengages the retractor mechanism and the belt retracts.

**SEPARATE MECHANISMS FOR EACH SIDE**
Keep in mind that on all models there are separate right and left side retractor assemblies. Be sure to use the correct part number when replacing either assembly.

**DOOR LATCHES**
Another new body feature phased in on LeBaron and Diplomat models are door latches.
Fig. 22—Plastic encapsulated ratchet for quieter door closing

which use a plastic encapsulated ratchet for quieter door closing. The door latch mechanism remains the same as previous ones, except for the ratchet. Servicing is the same as for previous latches, too, but note a smaller size (OD) striker is used with this door latch.

PADDED VINYL ROOF

All models will have an optional padded vinyl roof. Sedans feature a fully-padded vinyl roof with a unique rear window. You'll notice that the rear glass area is smaller than on Aspen/Volaré models. Rear glass is cemented to a plastic frame which is referred to as a plugged backlite. The vinyl roof can be serviced without having to remove the plastic frame.
With the introduction of a new body style it is important to familiarize yourself with the door window mechanisms as well as door, hood, and deck lid hinge locations, and the adjustments required for proper fit and alignment.

**DOOR WINDOW MECHANISMS**

Windows use the familiar single-post guidance system where only two assemblies move, the regulator and the lift channel. This design reduces cranking effort and simplifies adjustment. All window adjustments can be made from inside the car with the door closed, and trim and related hardware removed. Adjustment procedures are the same as on Aspen/Volaré models.

**DOOR FIT AND ALIGNMENT**

The procedures for door fitting and aligning are the same as those used on our other cars. You can find all the necessary adjustment details in the Service Manual. We'll cover a few of the important highlights.

**INSPECT BEFORE ADJUSTING**

Make a complete inspection before you attempt any adjustments. First, determine what is causing the misalignment so you can plan how to move the door(s) to eliminate the condition. As part of your inspection make sure the door opens and closes without binding. A simple thing like a high or low striker can interfere with proper door closing.

**IN-AND-OUT ADJUSTMENT**

For both two-door and four-door models, in-and-out adjustment is provided by hinge attachment to the door. Be sure to mark the hinge location as a starting point before you loosen the hinge bolts. This will show you how much you moved the door. After you've made the adjustment, remove the striker before checking alignment. This will eliminate striker or latch interference which could throw the door out of alignment. When you're satisfied with the alignment, reinstall and adjust the striker.

**CORRECTING DOOR FIT AND ALIGNMENT**

Fore-and-aft as well as up-and-down alignment is adjusted at the hinge attachment to the body. On four-door models, be sure to start with the rear doors and proceed forward. Again, before...
loosening any hinge bolts, mark the hinge locations. Follow the Service Manual procedures to align the doors.

On some jobs you can save time if a helper moves the door while you check the amount of movement and tighten the hinge bolts. Incidentally, a jack placed under the rear corner of the door will make it easier to control door movement. Or, if you want to raise the entire door, place the jack under the forward part of the door. Be sure to put a block of wood between the jack and the door to protect the door panel inside trim and door finish.

**NO SPECIAL TOOLS NEEDED**

On both front and rear doors, you can use standard wrenches to make the adjustment. For front door adjustment, you'll have to remove the fender splash shield to gain access to the hinge bolts.

**HOOD ADJUSTMENTS**

These adjustments are handled in the same manner as on our other models. Rubber bumpers adjust hood height at corners for flush fit with fenders. Side-to-side adjustment is accomplished by loosening the hinge-to-body attaching bolts. The attaching bolt holes are oval and slightly oversize, allowing for considerable side movement.

Also oval-shaped and oversized are the hood-to-hinge attachment holes which provide fore-and-aft and a very small amount of up-and-down adjustment.

**ADJUSTING THE DECK LID**

Deck lid hinges provide only a slight fore-and-aft as well as side-to-side adjustment. The deck lid latch assembly can also be adjusted like on our other models. The latch assembly has two elongated holes held in place by two bolts. Elongated holes in the striker plate allow for horizontal movement so it can be centered with the latch.

The striker should be adjusted so that it lines up with the center of the latch throat as the deck lid is closed. Make sure the latch is adjusted vertically in order to close properly, assuring a good seal on the weatherstrip.
NEW SPARK CONTROL COMPUTER SIMPLIFIES A FEW COMPONENTS

Under the hood, you'll find our familiar 318 engine equipped with the new Electronic Lean Burn system. Electronic technical advances by Chrysler engineering have led to a second generation Spark Control Computer. It now consists of one integrated circuit board which computes all the vital information that controls the ignition system. You'll notice the thinner and wider shape of the new computer as opposed to the thick and more compact Spark Control Computer used on our other engines.

SINGLE PICK-UP COIL USED

The new lighter weight Spark Control Computer also simplifies a few system components. A single pick-up coil, similar in appearance to the one used on our electronic ignition system, sends a basic signal for both the Start and Run modes directly to the Computer. Air gap is set at .006", the same as in our standard electronic ignition distributor.

Keep in mind that, although the pick-up coils look the same, they are not interchangeable because of the different mounting plates used.
DISTRIBUTOR HAS NO CENTRIFUGAL WEIGHTS

A new distributor is featured in the 318 ELB system. Since the new Spark Control Computer electronically controls all timing advance, centrifugal weights are eliminated in the distributor.

BALLAST RESISTOR AFFECTED

The new Spark Control Computer also simplifies ballast resistor operation. Although both sides of the dual ballast resistor have their wiring harnesses connected, only the 5 ohm or auxiliary section is functional. The Spark Control Computer electronically controls the .05 ohm or normal section of the ballast resistor. The wiring to the .05 ohm section has no continuity in the electrical circuitry.

FUEL SYSTEM

The fuel system is the same as our 1977 models. It requires the propane assist method for proper carburetor idle adjustment on Federal models and the use of an infra-red analyzer for California vehicles.

ROLLOVER CHECK VALVE

LeBaron and Diplomat models are equipped with a rollover check valve in the fuel tank vent line between the fuel tank and the charcoal canister to prevent fuel leakage if the vehicle is accidentally rolled over.

EMISSION CONTROL

The emission control system utilized by Federal LeBaron and Diplomat models is composed of the Electronic Lean Burn System, catalytic converter, and the Aspirator Air System. California and high-altitude models feature the Electronic Lean Burn System, catalytic converter, and the Air Injection System.

Be sure to keep this in mind if you are diagnosing this ELB system using the point-to-point testing method. You can also use the Lean Burn System Analyzer to diagnose the system, provided it is equipped with an adapter for hook-up to the new Spark Control Computer.
1. A normal condition for the manual control lever is to dangle freely in the following operating modes:
   A. Max A/C and A/C modes
   B. Vent and Heat modes
   C. Heat and Defrost modes

2. On the new single pick-up ELB system used on 318 engines, air gap is set at:
   A. .008"
   B. .006"
   C. .012"

3. With the intermittent windshield wiper system, the length of the delay is controlled by:
   A. Wiper motor
   B. Wiper switch
   C. Control unit

4. The evaporator and heater assembly is designed to permit servicing of internal components without removing the entire assembly from the car.
   TRUE  FALSE

5. The optional digital clock works continuously and illuminates the time with the ignition key in the off position.
   TRUE  FALSE

6. Fore-and-aft as well as up-and-down door alignment is adjusted at the hinge attachment to the body.
   TRUE  FALSE

7. The new Spark Control Computer electronically controls the .5 ohm section of the dual ballast resistor.
   TRUE  FALSE

8. Always jounce the car before taking front suspension or bumper height measurements.
   TRUE  FALSE

9. Both screws and retaining clips are used to attach the cluster carrier bezel to the Instrument panel.
   TRUE  FALSE

10. Side-to-side hood adjustment is accomplished by loosening the hinge-to-body attaching bolts.
    TRUE  FALSE

NAME ____________________________________________

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