CLASSIC ERA INNOVATIONS

Air Conditioning

EXTRA LENGTH CYLINDER HEAD STUDS COOLING COILS hile organizing some automotive
literature, I came across these items
of interest, illustrating a comfort
innovation developed during the Classic Era. For
the 1940 model year, Packard (and possibly Chrysler)
introduced air conditioning in its passenger
vehicles. Developed by Bishop and Babcock of
Cleveland, Ohio, the trunk- mounted unit delivered
cooled air into the passenger compartment via a
vent opening in the rear package shelf. Packard
called this Weather Conditioning and offered it
through 1942. The option was priced at nearly \$300.



An Air-Cooled Car: For years America has been asking, "Show will automabile interiors be cooled for summer driving?" The answer is NOW?... in the 1940 Packard — the first motor car to offer complete, year-around. Weather-Conditioning as a standard, extra-cost accessory installed at the factory.

Quick Cooling! Packard Wenther-Conditioner, when regulated for cooling, functions immediately when the car engine is started, is in media and emjoyable for abort trips as well as for long—and operates effectively at all car speeds.

Heat for Winter! Giving year-around confect, the Packard Wenther-Conditioner circulates an abundance of clean, heated air throughout the car for winter driving. A simple adjustment of damper controls located in the trunk compartment contects the Weather-Conditioner from a cooling system to a heating system. As with cooled air, the heated air is directed through the same grille, to follow the contours of the car roof and is distributed throughout the interior of the car.

Closed Window Comfort! In summer, as well as in winter, passengers may ride in comfort with all windows closed. Dirt, dust and insects need no longer be a nuisance in summer. Air is effectively filtered as it passes through the Weather-Conditioner and pollen, as well as dust, is removed—a priceless boon for hay fever victims.

Simple to Operate! No mechanical knowledge is needed to operate the Packard Weather-Conditioner. A handy switch on the dash regulates the speed of the blower to supply the desired volume of warm air in winter or cool air in summer. The damper controls in the trunk compartment, which govern the operation of the system for cooling or beating, are clearly marked and easily adjusted.





OUICK FACTS:

- WEAR-ARDEND COMPONY—The Packard Weather-Conditioner provides either heating or cooling, according to the season. Air is cooled by a mechanical refrigeration process.
- COOLING PRINCIPLE—the same as in house hold refrigerators. Practical, trouble-free simple.
- this type are rated in accordance with the equivalent cooling effect of a quantity of ice used for the same purpose in twenty-four bours. The Packard system has a cooling capacity at higher car speeds equivalent to the cooling effect of placing one and one-half to two tons of ice in the car locky to be method in twenty-four bours, which indicates its shilling to root at lower car speeds.
- DESIGNATION Air is dehumidified as it is cooled - for comfort on bumid days, rain or shine.
- BRAYING PRINCIPLE. Air is heated by passing through a core in which hot water is circulated. Heating core is in different part of same bossing as couling soils.

- FILTERING Air is filtered as it passes through the unit which keeps it clean, and low in pollea costent. Filter operates with either heating or costing.
- sample absence. To change from heating to cooling, or cooling to heating, it is necessary only to adjust damper control levers in the trunk compartment. This adjustment takes only a few seconds. During the winter season the compressor may be disconnected.
- INSTATION Every Packard equipped with #eather-Conditioning has additional special body insulation to help maintain desired interior temperatures.

 FACTORY INSTALLATION - Feether-Condi-
- FACTORY INSTALLATION Feether-Conditioning is installed at the factory, while the car is in process, as a standard, extra-cost accessory. It is available on enclosed models of the sedan body type.
- AN EXCLUSIVE SYSTEM Wenther-Conditioning is not to be confused with common types of heating, "conditioned air" or ventilating systems. It is the only system now available as a standard accessory which provides refrigerated cooling as well as beating.

PACKARD MOTOR CAR COMPANY · DETROIT, MICHIGAN

A S K T H K M A N W H O O W N S O N E



Clockwise from top left:

1940 Packard Air Conditioning spread from catalog; 1940 Packard Air Conditioning quick facts page from catalog; 1941 Cadillac rear window blinds; 1940 Packard leads again in providing passenger comfort!

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Cadillac offered a similar unit in 1941 and an estimated 300 cars were equipped with this option. Rear window "Venetian Blinds" were fitted to direct air away from the hot rear glass and toward the passengers. Cadillac would not offer air conditioning again until 1953, also as a trunk-mounted unit.

Allen B. Simons is authoring a book about the history of automotive air conditioning, scheduled for publication within the next year. Has anyone seen a Classic-era Chrysler with air-conditioning?





CADILLAC AIR CONDITIONING MANUAL

GENERAL DESCRIPTION

The Cadillac air-conditioning system provides a means of cooling, debumidifying, filtering and recirculating the air in the interior of the car, thereby providing a comfortable car interior during extremely

The air-conditioning system is avail-able at extra cost on all 41-Series Cadillac cars, but the installation must be made at the Cadillac factory at the time the car is being assembled.

1. Controls

The only control which the driver needs ne only control which the driver needs to manipulate is the switch for the evaporator fan, located on the flange of the instrument panel. This switch has three speeds, as well as "off," to permit the desired degree of cooling to be selected.

Continuous cooling is possible only by keeping the engine of the car running.

When the car is to be operated for some time without need of the air-conditioning system, the system can be disconnected by removing the compressor drive belt.

2. Air Circulation

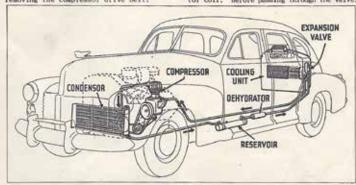
When the evaporator fan is turned on, air is drawn from the car interior u the rear seat and through the air filter into the cooling or "evaporator" coil, where it is cooled and dehumidified. It is then discharged by the blower through the directional louvers so that it follows the contour of the roof and circulates through the car. (See Figure 1.)

The system will function most efficient-ly if all windows and ventilators are closed. Ventilation, if desirable, can be secured either by opening the fresh air in-let for the heater (if a ventilating heater has been installed) or by opening the cowl ventilator not more than one notch.

3. Refrigeration Cycle

The refrigerent used in Freon (F-12), a non-toxic, non-corrosive, non-inflammable, non-irritating, and practically odorless gas which has a boiling point of -21°F., at atmospheric pressure.

The refrigerant is admitted through the expansion valve to the cooling or evapora-tor coil. Before passing through the valve,



Air Conditioning System

Clockwise from top right: 1941 Cadillac air conditionina diagram; 1941 Cadillac Cadillac 60 Special rear window blinds; 1941 Cadillac trunk-mounted air conditioning.

