



Mercedes-Benz

service information

TO: OUR MERCEDES-BENZ PASSENGER CAR DEALERS

DATE: August 1991

REF. NO. MBNA 58/51, 83/38

SUBJECT: A. SERVICE EQUIPMENT FOR REFRIGERANT R 134a
B. INTRODUCTION MANUAL:
NEW REFRIGERANT R 134a FOR AUTOMATIC CLIMATE CONTROL
C. LEGISLATIVE CONSIDERATIONS

The air conditioning system of all model 129 vehicles produced as of 6/24/91 (chassis end no. 038785) is filled with the new refrigerant R134a. The models 400E/500E and all U.S. versions of model 140 will use this new refrigerant from the beginning of production. A green underhood label identifies R 134a equipped vehicles. As other models follow, you will be informed accordingly.

A. Service Equipment for Refrigerant R 134a

This new refrigerant requires the use of new, specialized service equipment which is specifically designed for the recovery/recycling and recharging of R 134a only. (Recycling means purification via filtration, and oil/water separation.)

Equipment which was designed for use with R 12 systems cannot, under any circumstances, be used to service R 134a systems.

The following are important technical points regarding equipment for servicing R 134a air conditioning systems.

- A new type of leak detector which is designed for use with R 134a will be necessary.
- All vehicles which use R 134a have new type air conditioning service connection valves. New type service adapters are required to connect R 134a service equipment to the vehicle. These service adapters come as part of R 134a recovery/recycling/recharging equipment.
- Initially, R 134a is being supplied through the MBNA parts network in 920 gram cylinders (part no. 000 989 03 48 10). An adapter valve (part no. 140 589 23 63 00) will be necessary to connect the cylinder to the charging equipment.
- When R 134a becomes available in 15 and/or 30 pound containers, the containers will have the proper service fittings to allow it to be connected directly to the service equipment.
- Due to the anticipated high cost of refrigerant, MBNA strongly recommends using equipment that recovers/recycles and recharges refrigerant. See equipment list on the following page for listing of R 134a approved air conditioning service stations.
- Refer to the Standard Equipment Program catalog, the R 134a Introduction Manual section: "New Service Equipment and Products", or contact your Mercedes-Benz Field Service Representative for additional R 134a equipment information.

NOTE: Any damage in the vehicle's ACC system caused by the use of the wrong equipment, refrigerant and/or lubricant is not covered by the Mercedes-Benz Limited Warranty, or the equipment manufacturer's warranty. Since all expenses resulting from this type of damage would have to be borne by the servicing dealer, please inform your technical personnel accordingly.

Equipment

Leak detector, manufacturer: Bear ¹⁾	Model: HI-134a with HI-135 probe extender
Air conditioning service equipment, manufacturer: Bear ¹⁾	Models: 40-415 Charging Station only (presently available), 40-410 Deluxe Recovery only (presently available), 40-470 Recovery/Recycle/Recharge (available end 1991).
Air conditioning service equipment, manufacturer: Sun ¹⁾	Models: MCC-100/134a Charging Station only (available end 1991), MRC-400/134a Recovery/Recycle/Recharge (available beginning 1992).

¹⁾ Available through the MBNA Standard Equipment Program

Future legislation will mandate the use of recycling equipment and the certification of technicians. See section C.

B. Introduction Manual: New Refrigerant R 134a for Automatic Climate Control

An introduction manual for refrigerant R 134a is now available in printed form.

Description	Dealer Net (\$)	Suggested List (\$)
New Refrigerant R 134a for Automatic Climate Control (order no. S 2482 000)	2.60	3.50

The manual can be ordered in the usual manner from the Service & Parts Literature Department.

The following is a list of the most significant features concerning the new refrigerant:

- Mercedes-Benz is the first automobile manufacturer to use a chlorofluorocarbon (CFC)-free refrigerant in its production vehicles.
- Refrigerant R 134a is the refrigerant of choice to replace the familiar refrigerant R 12. R 134a is not damaging to the earth's ozone layer, and also possesses a significantly lower "greenhouse effect" potential than R 12.
- A/C systems intended for use with R 134a are under no circumstances to be filled or mixed with R 12 refrigerant, nor is a system intended for use with R 12 to be filled or mixed with R 134a refrigerant.
- Under no circumstances are A/C system components intended for use with R 12 to be used in a system intended for use with R 134a.
- Due to its composition, R 134a is not compatible with mineral oil based R 12 lubricants. A synthetic lubricant (PAG oil) is necessary for use in conjunction with R 134a. At present, the new lubricant (part no. 001 989 08 03) is only available through the Mercedes-Benz Parts Distribution Network.

C. Legislative Considerations

The Clean Air Act requires that, beginning in 1995, R 134a be recycled and that R 134a recycling technicians be certified. This is similar to the Clean Air Act requirements for R 12 that, beginning 1992 (or 1993 if an exemption is obtained), require R 12 recycling and the certification of R 12 recycling technicians.

This federal law is in effect, in addition to various state and local laws that already require R 12 and/or R 134a recycling. Dealers should be informed to check with their state and local authorities on the applicability of any such state and local laws.