

Service and Repair of Motor Vehicle Air Conditioners (MVACs)

Self-Inspection Checklist



Optional Information

Name of School:
Date of Inspection:
Career-Technical program/course/room:
Signature of inspector:

Guidelines:

This checklist covers regulations issued by the U.S. Environmental Protection Agency (EPA) under 40 CFR 82.30 to 82.42. They apply to anyone servicing motor vehicle air conditioners for cash, credit, goods, or services. A yes answer to a question indicates that this portion of the inspection complies with the EPA or Occupational Safety and Health Administration (OSHA) standard, or with a nonregulatory recommendation. These regulations do not cover service work for free but do cover Career-Technical schools. Appendix A of the regulations 40 CFR 82.30 to 82.42 should also be consulted and include *Standard of purity for use in mobile air conditioning systems, Extraction and recycle equipment for mobile automotive air conditioning systems, and Recommended service procedure for the containment of R-12.*

Servicing Motor Vehicle Air Conditioners

1	Are all teachers who teach the repair or service of motor vehicle air conditioners trained and certified by an EPA approved program for MVACs? [40 CFR 82.34 and 82.40]
2	Do students and employees follow proper procedures to prevent loss of refrigerant when recycling or recovering refrigerant from motor vehicle air conditioners? [40 CFR 82.34]
3	Is intentionally venting or disposing of refrigerant prohibited? [40 CFR 82.32 and 82.34]
4	Is all equipment used to recycle or recover refrigerant EPA-approved? [40 CFR 82.34 and 82.36]
5	Has a proper repair equipment certification been prepared and sent to the EPA? [40 CFR 82.42]
6	Are records maintained that show the name and address of the reclamation facility to which refrigerant is sent? [40 CFR 82.42]
7	Are records maintained that demonstrate that all employees authorized to operate refrigerant recycling or recovery equipment are currently certified? [40 CFR 82.42]

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U.S. Centers for Disease
Control and Prevention
National Institute for
Occupational Safety and Health

Safety Checklist Program for Schools
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8	Are all required records maintained on site for at least 3 years? [40 CFR 82.42]
9	Is it prohibited to sell or distribute containers that have less than 20 pounds of refrigerant, unless the buyer is properly trained and certified to repair and service MVACs? [40 CFR 82.34 and 82.42]

Definitions

Approved: certified by EPA or certified by an EPA-approved organization. Approved recover/recycle machines meet the technical specifications of SAE Standard J-1990 and have the capacity to purify used refrigerant to SAE Standard J-1991 for safe and direct return to the air conditioner following repairs. Recover-only equipment removes the refrigerant from the A/C unit as specified by SAE Standard J-2209 and transfers it into a holding tank. A list of both types of approved equipment is available from EPA. Most certified equipment is labeled as design-certified to SAE standards. Technicians who repair or service motor vehicle air conditioners must be trained and certified by an EPA-approved organization. Training programs must cover use of recycling equipment in compliance with SAE Standard J-1989, the regulatory requirements, the importance of refrigerant containment, and the effects of ozone depletion. To be certified, technicians must pass a test demonstrating their knowledge in these areas. A list of approved testing programs is available from EPA.

Motor vehicle air conditioners (MVACs): mechanical vapor compression refrigeration equipment used to cool the driver's or passenger's compartment of any motor vehicle. This definition does not encompass the hermetically sealed refrigeration systems used on motor vehicles for refrigerated cargo and the air conditioning systems on passenger buses using HCFC-22 refrigerant.

Proper procedures: using equipment following Recommend service procedure for containment of R-12 (CFC-12) in Appendix A of the regulations 40 CFR Subpart B, 82.30 to 82.42. In addition, this means operating the equipment according to the manufacturer's guide to operation and maintenance and using only the controlled substance for which the machine is designed. For equipment that extracts and recycles refrigerant, proper procedures means to recycle refrigerant before it is returned to a motor vehicle air conditioner. For equipment that only recovers refrigerant, proper procedures means recycling the refrigerant on site or sending the refrigerant off site for reclamation. Refrigerant from reclamation facilities that is used for recharging motor vehicle air conditioners must be at or above the standard of purity developed by the Air-conditioning and Refrigeration Institute (ARI 700-88) [available at 4301 North Fairfax Drive, Suite 425, Arlington, Virginia 22203] in effect as of November 15, 1990. Refrigerant may be recycled off site only if the refrigerant is extracted using recover-only equipment, and is subsequently recycled off site by a person that owns the recover-only equipment and owns or operates the establishment at which the refrigerant was extracted. Approved equipment must be used to extract refrigerant before any service is performed during which discharge of refrigerant from the motor vehicle air conditioner can reasonably be expected. Intentionally venting or disposing of refrigerant to the atmosphere is an improper use of equipment. [82.32(e)]

Repair equipment certification: a signed statement by the owner of the equipment used to recycle or recover refrigerant that includes: (a) the name of the purchaser of any EPA approved equipment used to recycle or recover refrigerant; (b) the address of the establishment where the equipment will be located; (c) the manufacturer name and equipment model number, the date of manufacture, and the serial number of the equipment; (d) a statement that the equipment will be properly used in servicing motor vehicle air conditioners; (e) a statement that each teacher authorized to teach service is properly trained and certified for repairing and servicing MVAC; and (f) a signature of the owner of the equipment or other responsible officer. This certification must be sent to MVACs Recycling Program Manager, Stratospheric Ozone Protection Branch (6202-J), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. [40 CFR 82.42].