



MAINTENANCE MANAGEMENT TRAINING

Auto Air Conditioning and Refrigerated Transport Units

3 day course

Classroom, online or in-house

Course overview

A refrigerated body that runs warm for six hours destroys a load worth more than the vehicle, and the fault is usually a service that was done by topping up gas rather than by finding the leak. This course covers doing it properly. Delegates work through the refrigeration cycle and what each component does, then through refrigerants, their handling and the recovery and recharge equipment the law requires. Leak detection is covered in detail, since topping up a leaking system is both a false repair and a release. System evacuation, moisture removal and charge accuracy are addressed, because an incorrect charge is the commonest cause of poor cooling. Compressors, condensers, evaporators and expansion devices are covered with their failure symptoms. Transport refrigeration units are addressed specifically: engine driven units, defrost cycles, airflow in a loaded body and temperature recording for the cold chain. Insulation and door discipline are covered as the largest practical variables. The course closes on fault diagnosis by pressure and temperature, and on servicing to protect a load rather than a machine.

What you will learn

- Explain the refrigeration cycle and each component's role
- Handle refrigerants with recovery and recharge equipment
- Detect leaks rather than topping up a leaking system
- Evacuate, remove moisture and charge accurately
- Diagnose compressor, condenser and expansion device faults
- Operate transport refrigeration units including defrost and airflow
- Diagnose by pressure and temperature, and protect the cold chain

Who should attend

- Air conditioning and refrigeration technicians
- Fleet workshop staff servicing reefer units
- Cold chain operations supervisors
- Bus and coach maintenance teams
- Quality staff responsible for transported temperature

Course outline

- 01 Topping up instead of repairing
- 02 The refrigeration cycle and components
- 03 Refrigerant handling, recovery and recharge
- 04 Leak detection
- 05 Evacuation, moisture and charge accuracy
- 06 Compressor, condenser and expansion faults
- 07 Transport units, defrost and airflow
- 08 Insulation, door discipline and temperature recording

Upcoming dates

Dates	Venue	Format	Fee per delegate
18 to 20 November 2026	Casablanca, Morocco	Classroom	USD 995
25 to 27 November 2026	Online	Online	R6,500
4 to 6 January 2027	Maputo, Mozambique	Classroom	USD 995



Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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