SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Refrigerant Recovery and Charging Learning Systems | PolarX-1098

Category: Refrigeration and Air Conditioning · **Order Code:** POLARX-1098 · **Country of Origin:** India

Product Overview

The Refrigerant Recovery and Charging Learning Systems for R-134a / R-410a PolarX-1098 provides integrated hands-on training combining genuine service equipment with multimedia courseware. Two configurations available: PolarX-1098-A for R-134a and PolarX-1098-B for R-410a. Includes mobile workstation, recovery machine, manifold gauge set, charging hose set, temperature probe, submersible cooler, electronic scale, filter dryer, and comprehensive curriculum. Requires 120V / 60Hz single-phase power, EPA 608 Certification for instructors, and customer-supplied refrigerant and recovery tank.

View this product online: https://scienticoindia.com/product/refrigerant-recovery-and-charging-learning-systems-polarx-1098/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Refrigerant Recovery and Charging Learning Systems for R-134a / R-410a PolarX-1098 — Technical Specifications

Specification	Details
Workstation Configuration	Mobile workstation included
Recovery Machine	Included
Refrigerant Type (PolarX-1098-A)	R-134a
Refrigerant Type (PolarX-1098-B)	R-410a
Manifold Gauge Set	Included
Charging Hose Set	Included
Temperature Probe	Included
Valve Core Removal Tools	Included
Submersible Cooler	Included
Electronic Scale	Included
Filter Dryer	Included
Liquid Vaporizer	Included (PolarX-1098-B only)
Courseware Type	Multimedia curriculum
Documentation	Instructor guide, installation guide, student reference guide

Specification	Details
Power Supply	120V / 60Hz / 1 phase
Instructor Certification	EPA 608 Certification (US) or equivalent
Customer-Supplied Items	Refrigerant and recovery tank

Technical Data

PolarX-1098-A Configuration (R-134a System)

- Recovery machine: For R-134a refrigerant recovery
- Manifold gauge set: For system pressure monitoring
- Charging hose set: For safe refrigerant charging
- Temperature probe: For thermal measurement
- Valve core removal tools: For system access
- Submersible cooler: For refrigerant cooling during recovery
- Electronic scale: For precise charge weight measurement
- Filter dryer: For refrigerant purification
- Mobile workstation: For transportable operation

PolarX-1098-B Configuration (R-410a System)

- Recovery machine: For R-410a refrigerant recovery
- Manifold gauge set: For system pressure monitoring
- Charging hose set: For safe refrigerant charging
- Temperature probe: For thermal measurement
- Valve core removal tools: For system access
- Submersible cooler: For refrigerant cooling during recovery
- Electronic scale: For precise charge weight measurement
- Filter dryer: For refrigerant purification
- Liquid vaporizer: For R-410a liquid phase handling
- Mobile workstation: For transportable operation

Courseware Coverage

- Refrigerant fundamentals and properties
- Environmental regulation of refrigerants
- Ultrasonic, dye, and halide leak detection methods
- Gas pressurization and soap-solution leak testing
- Pressure and temperature measurement techniques
- Compound gauge operation and interpretation
- Refrigerant recovery and recycling procedures
- Refrigerant handling and storage protocols
- Refrigerant charging methods and best practices
- Blended refrigerant charging techniques

Key Features

Key Features

- Mobile workstation design: Provides flexible, transportable setup for refrigerant recovery and charging learning systems instruction
- Dual refrigerant configurations: PolarX-1098-A for R-134a and PolarX-1098-B for R-410a enables training on both major refrigerant types
- Recovery machine included: Genuine service equipment for hands-on refrigerant recovery and charging practice
- Manifold gauge set: Enables accurate pressure monitoring during refrigerant recovery and charging operations
- Electronic scale: Provides precise refrigerant charge weight measurement critical for accurate refrigerant recovery and charging

- Temperature probe: Measures system temperatures essential for proper refrigerant charging procedures
- Submersible cooler: Maintains refrigerant temperature during recovery and charging process
- Filter dryer: Purifies refrigerant during recovery and charging cycles
- Liquid vaporizer: PolarX-1098-B specific, handles R-410a liquid phase safely during refrigerant charging
- Multimedia courseware: Interactive learning platform bridges theory and bench work for refrigerant recovery and charging competency
- Complete documentation: Instructor guide, installation guide, and student reference guide support comprehensive training delivery
- Valve core removal tools: Provides safe system access for refrigerant recovery and charging procedures

Experiments and Learning Activities

- Refrigerant recovery from charged systems using recovery machine
- Refrigerant recycling and purification procedures
- Leak detection using ultrasonic, dye, and halide methods
- Gas pressurization and soap-solution leak testing techniques
- Pressure and temperature measurement during system operation
- Compound gauge interpretation and troubleshooting
- Proper refrigerant handling and storage procedures
- Refrigerant charging using accurate weight-based methods
- Blended refrigerant charging techniques and considerations
- System evacuation and vacuum pump operation

Construction and Design

The Refrigerant Recovery and Charging Learning Systems for R-134a / R-410a PolarX-1098 features a mobile workstation base that houses all service equipment for transportable operation. The recovery machine is mounted securely with accessible controls and connections. The manifold gauge set is positioned for clear visibility of pressure readings. Charging hose set is organized and color-coded for safe refrigerant line identification. The submersible cooler, electronic scale, filter dryer, and valve core removal tools are positioned for efficient workflow during refrigerant recovery and charging operations. For PolarX-1098-B systems, a liquid vaporizer is integrated to handle R-410a refrigerant safely. All components are mounted on the mobile workstation to facilitate classroom and field instruction. Temperature probe is readily accessible for thermal measurement during experiments. The PX-1098 interactive courseware runs on standard computers, supporting multimedia learning content synchronized with hands-on equipment operation.

Scope of Delivery

PolarX-1098-A Includes:

- Mobile workstation base
- Recovery machine for R-134a
- Manifold gauge set
- Charging hose set
- Temperature probe
- Valve core removal tools
- Submersible cooler
- Electronic scale
- Filter dryer
- PX-1098-A multimedia courseware (curriculum, instructor guide, installation guide, student reference guide)
- Power cord and connection cables

PolarX-1098-B Includes:

- Mobile workstation base
- Recovery machine for R-410a
- Manifold gauge set
- Charging hose set
- Temperature probe
- Valve core removal tools
- Submersible cooler

- Electronic scale
- Filter dryer
- Liquid vaporizer
- PX-1098-B multimedia courseware (curriculum, instructor guide, installation guide, student reference guide)
- Power cord and connection cables

Required for Operation

- Single-phase electrical supply: 120V / 60Hz
- EPA 608 Certification (US) or equivalent local protocol for instructors
- Computer meeting specifications listed at scientico.com/support
- Refrigerant (R-134a for PolarX-1098-A, R-410a for PolarX-1098-B)
- Refrigerant recovery tank
- Adequate floor space for mobile workstation placement
- Proper ventilation for refrigerant handling

Optional Accessories

- Additional refrigerant recovery tanks
- Replacement hoses and connection fittings
- Supplementary learning modules on advanced HVACR topics
- Extended courseware modules for specialized refrigerant types

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q: What is the difference between PolarX-1098-A and PolarX-1098-B refrigerant recovery and charging systems?
A: The PolarX-1098-A is configured for R-134a refrigerant commonly used in automotive and older commercial systems. The PolarX-1098-B is configured for R-410a, a higher-pressure refrigerant used in modern commercial and residential HVAC systems, and includes a liquid vaporizer for safe R-410a handling.

Q: Does the Refrigerant Recovery and Charging Learning Systems include refrigerant?
A: No, customers must supply the refrigerant (R-134a or R-410a depending on configuration) and recovery tank. This allows instructors to manage inventory and choose refrigerant sourcing preferences.

Q: What instructor qualifications are required for the PolarX-1098 refrigerant recovery and charging systems?
A: Instructors must hold EPA 608 Certification in the United States or equivalent local protocol certification to safely supervise refrigerant recovery and charging training operations.

Q: Can the PolarX-1098 mobile workstation be used for both classroom and field instruction?
A: Yes, the mobile workstation design enables flexible deployment for classroom instruction and field training. All components are mounted securely for transport while maintaining accessibility for hands-on refrigerant recovery and charging practice.

Q: What computer specifications are needed to run the PX-1098 courseware?
A: Complete computer requirements for the PX-1098 multimedia courseware are available on scientico.com/support. The courseware runs on standard computers with adequate processing power for interactive multimedia content.

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