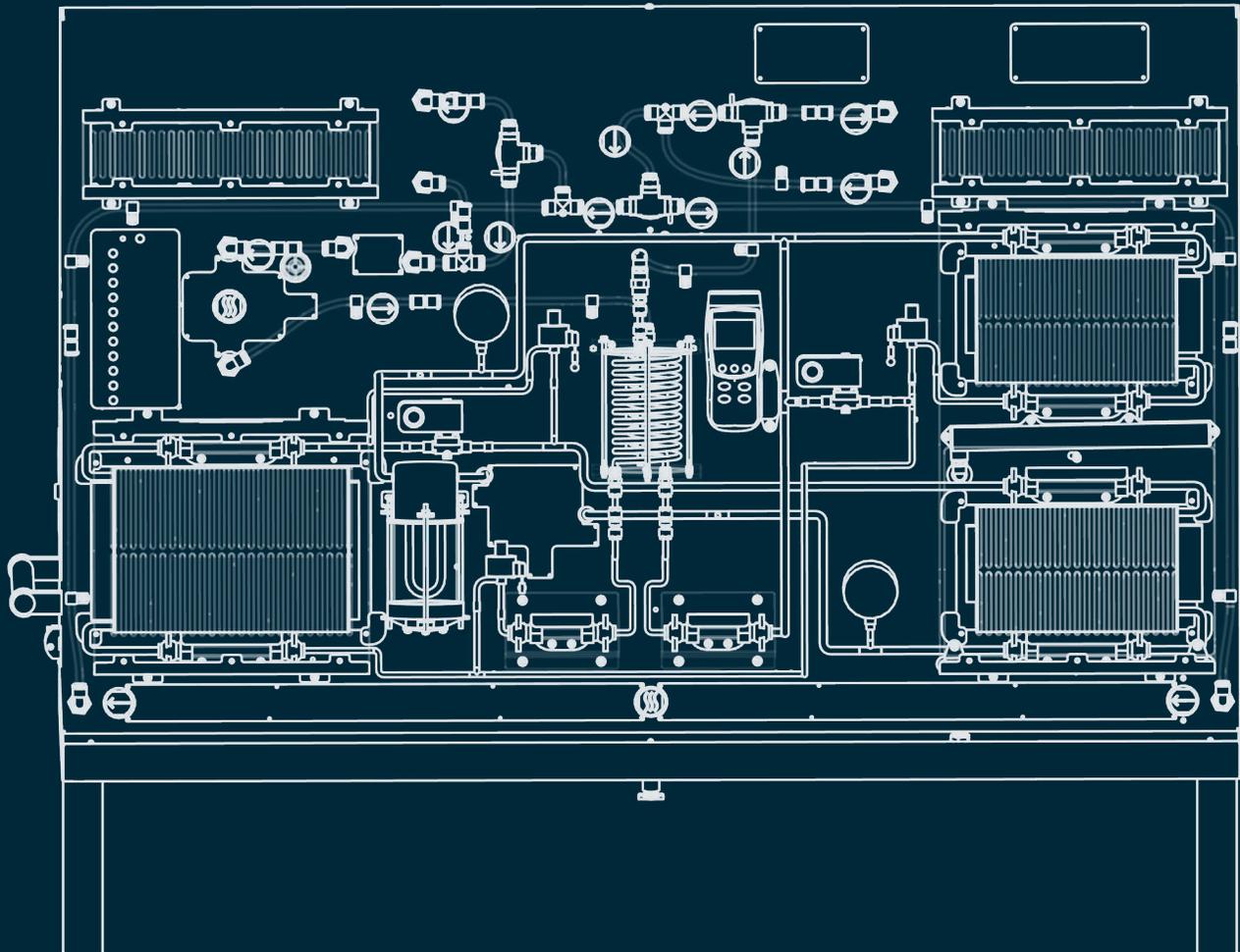




Electric Vehicle thermodynamic systems trainer





The EV-2000 is a fully functional, classroom-safe training system designed to demystify electric vehicle (EV) heat pump technology. It offers a hands-on, visual approach to understanding how modern EVs manage heating, cooling, and battery thermal regulation, making advanced thermal systems accessible to students and instructors.

EDUCATIONAL ADVANTAGES

- All major elements required for an EV heat pump system are integrated into the trainer
- Clear sight glasses provide clear understanding of the heat pump refrigeration cycle
- Allows students observation of refrigerant changes of state (liquid/vapor) at the evaporator, the chiller, the external heat exchanger and the internal heat exchanger
- Trainer can be connected to any A/C Recycling/Recovery equipment using R-1234YF service ports
- Removable magnetic component identification labels for student learning
- Equipped with high pressure cut-out switch, evaporator deicing switch and internal compressor protection
- Makes complex EV thermal systems engaging and easy to understand
- Supports real-world diagnostics and troubleshooting
- Aligns with Red Seal, ASE, xEV, and EVSE training modules
- Cross-platform compatibility: not limited to any single OEM
- Enables scenario-based learning with simulated faults
- Provides practical experience with both refrigerant and coolant loops.
- Ideal for:
 - Automotive service technician training programs
 - HVAC and thermal engineering courses
 - EV-focused certification programs
 - Pre-apprenticeship and high school STEM initiatives

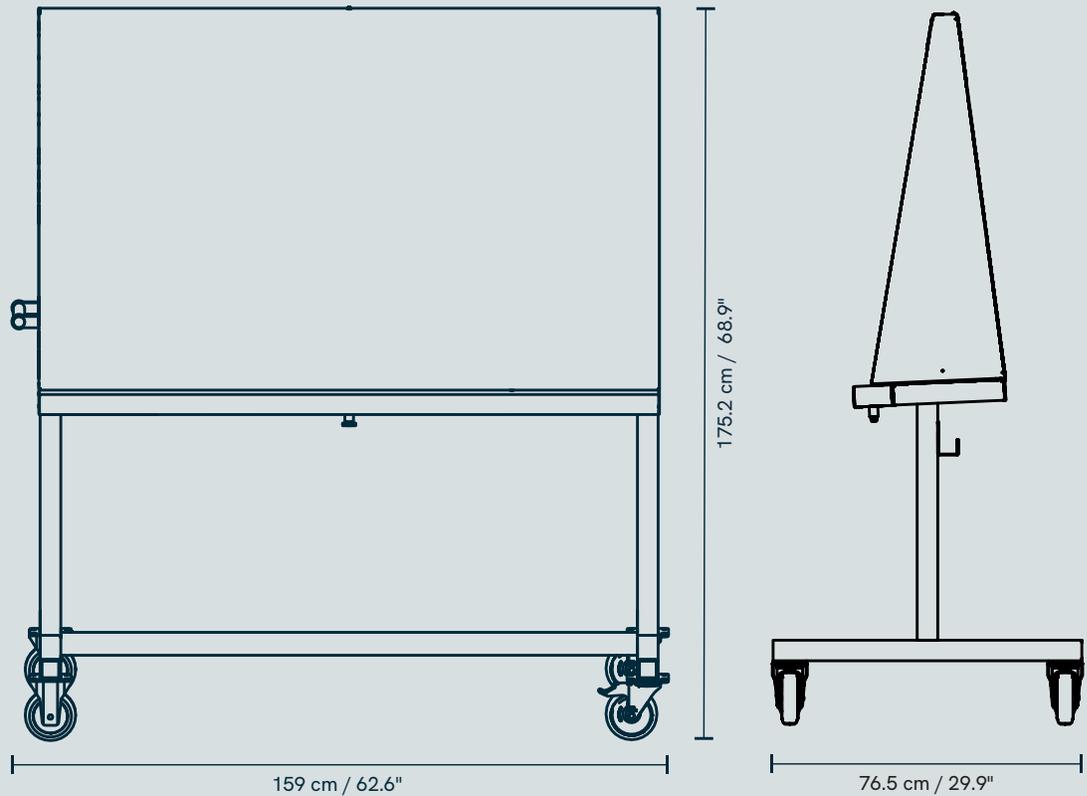
FEATURES

- Fully operational heat pump, chiller, PTC heater, and electronic expansion valves
- Glycol and refrigerant loops with 10 operating modes
- 13 fault scenarios for diagnostics
- Digital thermometer (4) and High and Low side A/C pressure gauges
- Visual indicators for HV battery temperature and glycol flow
- Instructor's lockable fault box
- Supports up to two students simultaneously
- Integrated safety systems for classroom use
- OEM R-1234YF service ports
- High pressure (280 psi) safety switch shuts off compressor
- Stainless steel condensate drip pan with drain
- Operation Manual and Curriculum with student assignments included
- Sturdy powder coated metal stand with two locking swivel and two fixed casters



**TECHNICAL
INFORMATION**

- **Dimensions:** 62.6 x 68.9 x 29.9 inch (159 x 175.2 x 76.5 cm)
- **Weight:** 269 kg (593.23 lbs)
- **Refrigerant:** R-1234YF
- **Oil:** Super Premium Esther (1 oz)
- **Coolant:** 2 L pre-diluted long-life antifreeze (Ethylene Glycol 30–60%, Diethylene Glycol 1–5%)
- **Power Supply:** Operates on a 120V 12A 60Hz circuit



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