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## COURSE DESCRIPTION

### COURSE: ECOi Service & Diagnostics

**LOCATION OF TRAINING:** Panasonic Kennesaw Georgia Training Facility, Panasonic Authorized Training facilities with Panasonic HVAC products installed/operational.

**COURSE OVERVIEW:** This training course focuses on Panasonic's ECOi Multi Split Variable Flow Refrigerant (VRF) system. Upon completion of this course participants should have attained the required skills to properly configure a system, install the system commission the system and to conduct in-depth service, trouble-shooting and diagnostics.

**TIME REQUIRED:** 1.0 Days

**WHO SHOULD ATTEND:** Our target audience includes HVAC contractors (technicians and installers) as well as our wholesale distributor technical staff members. Attendees should have a thorough understanding of air conditioning systems, refrigerants, installation and service procedures. Previous skills and knowledge of Panasonic's Split Ductless Inverter Driven products is a plus.

**CLASS SIZE:** Target class size is 10 - 15 individuals

#### GENERAL COURSE OUTLINE:

- Introduction of product (including models, capacities, voltages, etc.)
- Working with R-410a refrigerant
- Installation requirements and procedures including but not limited to:
  - Brazing of refrigerant lines/need for nitrogen purge
  - Selection and installation of refrigerant piping
  - Evacuation requirements
  - Refrigerant charging calculations and methodology
  - Installation and supporting of indoor and outdoor units
  - Installation/interfaces of accessory items
  - Required installation clearances
  - Power wiring requirements
  - Control wiring requirements
- Electrical Circuits
- Refrigerant Flow diagram
- Operating characteristics
- System commissioning including:
  - Pre start up checks and inspections
  - Sequence to start the system

- Auto addressing of system
- Controls programming
- Post start up checks including voltage, amperage, pressure
- Fault codes, Servicing and Diagnostic procedures
- Hands-on Practical system operation, disassembly, troubleshooting
- Connection and use of Service Diagnostic Tool