

# TRAINING UNIT CATALOG

## SPECIALIZING IN HVAC/R TRAINING

# iConnect<sup>®</sup>

TRAINING



BUILDING AUTOMATION SYSTEM UNITS



TU-406C RESIDENTIAL  
HEAT PUMP TRAINER



TU-106 DUAL-APPLICATION  
COMMERCIAL REFRIGERATION TRAINER

NORTH PARK INNOVATIONS GROUP, INC.

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## OUR COMMITMENT TO QUALITY EDUCATION

We strongly believe in providing the HVAC/R student with the knowledge and training for the safe and efficient operation of all types of systems found in our industry.

We also believe that prior to going out into the field, the student should fully understand the theory and operational or service techniques behind each specific system.

iConnect Training provides the finest training units to the educational market. They can be found in high schools, technical colleges, government facilities and other educational settings all over the world (see partial listing of locations on page 29).

The training units in this catalog represent a wide variety of subjects in the heating, refrigeration, air conditioning and electrical industries. The training units range from demonstrating simple concepts to illustrating advanced troubleshooting and servicing techniques. Our expertise certainly does not end here. We can custom design and build trainers to your exact specifications and needs. For custom requirements or applications, please give us a call at 716.699.2031.

Our company's goal is to provide top quality trainers at reasonable prices that fit our customers' precise needs. We look forward to working with you.

# BUILDING AUTOMATION SYSTEMS SIMULATORS WITH CURRICULUM

NOW  
ANNOUNCING



*Advance Your HVAC Students'  
Training Now!*

## BL-01 BAS CONTROLLER TRAINING UNIT

*BL-01 packaged benchtop learning system is intended for Building Automation and HVAC controls technicians/programmers who work with BAS controllers. Input/output devices are prewired. The Level 1 curriculum is web-based and highly interactive emphasizing BACnet networking and Sedona programming.*

### Specifications

Power Requirements: 10W 24VDC (via 120 VAC to 24VDC Wall Adapter)

Operating Temperature: 55°F to 85°F

Storage Temperature: 10°F to 110°F

Relative Humidity: 10 to 95% RH non-condensing

Mounting: Benchtop

Shipping Weight: 15 lbs

Dimensions: 10"W x 12"H x 7"D

### Features

- Programmable Sedona 22 point unitary controller with BACnet IP, and web interface
- Instrument panel with Input/Output components and 24VDC posts
- 0-10 VDC Digital meter
- 24VDC 1.5A Wall adapter
- USB Drive with Course Curriculum and Setup/support documents

**The BL-01 DDC/BAS Programming system can be purchased in these versions:**

**BL-01-Bc22** – Contemporary Controls BAScontrol22 controller, BAS Toolkit software, Intro to Sedona Course Curriculum (USB Drive). Full 1 yr. warranty.

**BL-01-DIN** – DIN rail mount (No controller included), BAS Toolkit software. Limited 1yr. warranty. No curriculum included. Note: DIN rail model requires some final user wiring due to lack of controller.



**Shipping Weight: 5 lbs.**

**Shipping Dimensions: 12" L x 14" W x 14" H**

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## BL-02 BAS CONTROLLER TRAINING UNIT

*The BL-02 is designed specifically for training DDC/BAS technicians and programmers who work with programmable unitary controllers. Graphical object oriented programming is presented using the non-proprietary, open-licensed Sedona Framework®.*

### Specifications

Power Requirements: 20W 24VDC (via 120VAC to 24VDC Wall Adapter)

Operating Temperature: 55°F to 85°F

Storage Temperature: 10°F to 110°F

Relative Humidity: 10 to 95% RH non-condensing

Mounting: Benchtop

Shipping Weight: 20 lbs

Dimensions: 17"W x 12"H x 7"D

### Features

- Programmable Sedona 22 point unitary controller with BACnet IP, and web interface
- Instrument panel with Input/Output components and 24VDC posts
- 0-10 VDC Digital meter, 2-10v Belimo actuator
- 24VDC 1.5A Wall adapter
- Senva AQW Wall Setter with integral temperature, setpoint slider and CO2 sensor
- USB Drive with Course Curriculum and Setup/support documents

**The BL-02 DDC/BAS Programming system can be purchased in these versions:**

**BL-02-Bc22** – Contemporary Controls BAScontrol22 controller, Senva wall setter, BAS Toolkit software, Intro to Sedona Course Curriculum (USB Drive). Full 1 yr. warranty.

**BL-02-DIN** – DIN rail mount (No controller included). Limited 1yr. warranty. No curriculum included. Note: DIN rail model requires some final user wiring due to lack of controller.



**Shipping Weight: 7 lbs.**

**Shipping Dimensions: 20" L x 14" W x 14" H**

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## PT-201 DDC/BAS PROGRAMMER TRAINING UNIT

*The PT-201 is designed specifically for training DDC/BAS programmers who work with programmable unitary controllers. Graphical object oriented programming is presented using the non-proprietary, open-licensed Sedona Framework®.*

### Specifications

Power Requirements: 50W; 120VAC; 60Hz

Operating Temperature: 55°F to 85°F

Storage Temperature: 10°F to 110°F

Relative Humidity: 10 to 95% RH non-condensing

Mounting: 5/16" carriage bolts (2) optional

Shipping Weight: 20 lbs (not including workbooks)

Dimensions: 18.5"W x 14"H x 7"D (w/cover)

### Features

- Programmable Sedona 20 point unitary controller with BACnet IP, and web interface
- Instrument panel with Input/Output components and 24VAC posts
- Belimo 2-10VDC Actuator with 2-10VDC position feedback
- Relay with HOA switch
- 0-20VDC Digital meter
- 5 port Ethernet switch 10/100mpbs
- Banana plug jumper kit with storage pouch

**The PT-201 DDC/BAS Programming system can be purchased in two versions:**

**PT-201-Bc20** – Contemporary Controls BAScontrol20 controller, BAS Toolkit software, Intro to Sedona Course Curriculum (USB Drive). Pre-wired Banana Test Leads. Full 1 yr. warranty.

**PT-201-DIN** – DIN rail mount (No controller included), BAS Toolkit, Banana Test Lead Kit. Limited 1yr. warranty. No curriculum included.



**Shipping Weight: 20 lbs.**

**Shipping Dimensions: 24" L x 18" W x 10" H**

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**NEW  
PRODUCT**

## PT-181 DDC PORTABLE TRAINING UNIT

*The PT-181 is a portable training unit specifically designed for the DDC (Direct Digital Controls) industry. It is packaged with curriculum that is both embedded in the Trainer and contained in a written workbook resulting in a highly interactive student – trainer experience. The PT-181 incorporates some of the most popular DDC devices currently in use.*

### Specifications

Power Requirements: 100W 120VAC 60Hz

Operating Temperature: 55°F to 85°F

Storage Temperature: 10°F to 110°F

Relative Humidity: 10 to 95% RH non-condensing

Mounting: 3/8" carriage bolts (2) optional

Shipping Weight: 44 lbs (not including workbooks)

Dimensions: 24"W x 21"H x 10"D (w/cover)

### Features

- DDC Controller, Web enabled, JACE 8000 series, with permanent BACnet, LON, Modbus licenses
- 34 point Remote Input/Output module with integral power supply
- Programmable RTU thermostat with color touchscreen, BACnet MSTP, and web interface
- Communicating FCU thermostat with analog output and BACnet MSTP interface
- CO2 / temperature room sensor with setpoint slider
- Micro VFD with Modbus interface and 3 phase visual output indicators
- 90 degree stroke Actuator with 2-10VDC position feedback
- Status CT, Pilot relay with Auto/On override, Thermistor temp probe
- Instrument panel with Input/Output devices and 24VAC posts
- 0 to 20VDC Digital meter
- 5 port Ethernet switch 10/100Mbps



**Shipping Weight: 32 lbs.**

**Shipping Dimensions: 30" L x 24" W x 12" H**

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# HVAC ELECTRICAL CONTROLS AND REFRIGERATION TRAINING

**NEW  
PRODUCT**

**iConnect Training has added this line of training units specific for HVAC Electrical Controls and Refrigeration Training. Designed by a master union technician and instructor, they are modular and flexible. Check out these models on pages 6-10.**

*Choose our standard model or customize your TU-9240 HVAC Electrical Control Training System by adding additional panels that meet your classroom and lab needs. See our web site for the full description of panels available: [www.iConnectTraining.com/Panels](http://www.iConnectTraining.com/Panels).*

*See a few examples of the individual panels below:*



## PART NUMBER

## PHOTO

## DESCRIPTION

3009100



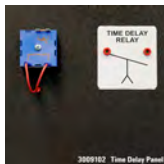
**Transformer Panel:** Power panel for the unit. 115V supply to the transformer, reducing the voltage to 24 volts. Fused on low voltage side for 5 amps and the high voltage side for 6 amps. Gives user the choice of using direct wiring or plug and play. Also gives a diagram of the transformer, as found on an electrical or engineering print.

3009101



**ETC Control Panel:** (Electronic Temperature Control): 2-stage temperature controller, could be used for heating or cooling applications. Thermistor type temperature sensor. Powered by 24 volt. Direct wiring.

3009102



**Time Delay Panel:** This shows a delay scenario, useful for demonstrating a delay in time for starting a load. Normally used in refrigeration systems to prevent short-cycling a compressor. Plug and play.

## TU-9240 HVAC ELECTRICAL CONTROL TRAINER

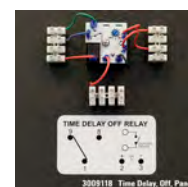
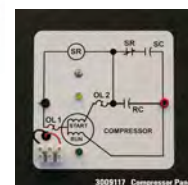
*This system gives students the opportunity to learn the basics of electricity, and then proceed on to learn how to set up a control circuit. It is designed for courses teaching the apprentice or vocational student early in their training. Built on a rolling frame with 36 modular panels, the instructor can position 12 panels on the front display for the lessons of the day. All refrigeration controls used are all designed for the HVAC industry. The student can learn from connecting the controls using two different methods, depending on the panel:*

- Plug and play type: plug the wiring into the jacks and build the circuit from that point.*
- Direct wiring: using terminal strips, by cutting and running the wire, and then terminating at the control, as they would in the field.*

*The instructor can teach the principals of circuitry, all with this low voltage system (24-volt) to ensure beginner safety. Students can experience taking voltage, amperage and resistance readings to build their basic understanding of an electrical system. Lessons off this unit will also teach them basic knowledge of series (as seen in pressure controls) and parallel circuitry (as seen in relays).*

*Manuals, including electrical diagrams to construct working control circuits, are included.*

*The TU-9240 HVAC Electrical Control Trainer can be used for lectures explaining the controls and how they function and/or for practice demos. This unit is designed for electrical programs, HVAC programs, and control calibration courses.*



### Specifications

Electrical requirements: 120VAC

Overall size: 45" L x 24" W x 69" H

### Features

- Low voltage 24-volt system
- The unit comes standard with 36 panels
- The lower rack and back rack provide storage for the panels not being used in the current lessons
- Circuits including basic electricity, basic refrigeration, heating and air conditioning, commercial air conditioning and other load circuits can be created.
- Controls include power transformer, light panels, single, double and four-way switches, single pole contactor, switching relays, programmable thermostat, fan relay, stop-start station, 3-pole contactors with auxiliary contacts and overload protection, high and low pressure controls both in-line and commercial, commercial step controller, load fans, mechanical temperature control






**Shipping Weight: 700 lbs.**

**Shipping Dimensions: 58" L x 46" W x 79" H**

## TU-9250 HVAC CONTROLS TRAINING SYSTEM

*Choose our standard models or customize your TU-9250 HVAC Controls Training System by adding additional panels that meet your classroom and lab needs. See our web site for the full description of panels available: [www.iConnectTraining.com/Panels](http://www.iConnectTraining.com/Panels).*

*See a few examples of the individual panels below:*

PART NUMBER	PHOTO	DESCRIPTION
3009130		<b>Combustion Blower Panel:</b> This 2-stage fan operation demonstrates airflow to the burner section of a furnace. 120VAC
3009131		<b>Control Module Panel:</b> This unit is common for furnace applications. Once power is applied to the board, it will start the combustion blower motor, which will activate the pressure switch, so that the panel will get the "go signal" to start the burner.
3009132		<b>Control Power Panel:</b> This demonstrates how power is supplied to both furnace and air conditioning systems. Includes a fused surface switch, a 24-volt transformer, and is direct wired to both 120-volt and 24-volt control systems.
3009134		<b>High/Low Pressure Safety Panel:</b> This is used in the safety circuit of a furnace operation, to sense pressure created from the combustion blower through a pitot tube. If it fails to register pressure, it will shut the system down.
3009135 (Panel)		<b>Combination Gas Valve Panel and Burner:</b> This 2-stage gas valve receives a signal from the Control Board. Once there is a call for heating, the igniter is started, and gas is supplied to the burner for ignition. Includes Gas Valve panel and Burner Assembly with gas and regulator. Safety Note: the regulator provided has low-, medium- and high-pressure settings; it is recommended to operate only on low pressure in this application. The recommended 1-pound propane tank can be purchased by user at any local hardware supply.
3009136 (Burner Assembly)		

## TU-9250 HVAC CONTROLS TRAINING SYSTEM

*As a companion unit to the TU-9240, this trainer is a great demonstrator to show the complete cycle of a residential heating and cooling system. Built as a tabletop unit with 12 modular panels, it functions as a working model so the instructor can teach the basic principles of heating and cooling, complete with all the elements.*

*For the heating system, the unit includes a working model of a furnace burner. Using the furnace print in the manual to direct wire this system from start to finish, the student gains familiarity of the operation of an entire furnace system.*

*The air conditioning portion of this system is simulated with the compressor contactor, high-pressure and low-pressure controls, and the compressor panel, with direct wiring or plug and play options.*

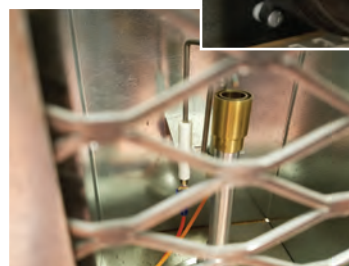
### Specifications

Electrical requirements: 120VAC

Overall size: 45" L x 24" W x 39" H

### Features

- 120VAC with transformer supplying 24VAC low voltage
- The unit comes standard with 12 panels
- Wiring harnesses provided
- Fuel source is a customer-supplied standard propane canister
- Manual included with electrical configurations



**Shipping Weight: 450 lbs.**

**Shipping Dimensions: 48" L x 48" W x 48" H**



## TU-9230 REFRIGERATION TRAINING SYSTEM

*This training unit teaches the principals of medium and low-temp refrigeration. The unit is a split-system design with an evaporator featuring an EEV (electronic expansion valve), a suction pressure transducer, and temperature sensors to control the evaporator. Using the most advanced commercial refrigeration control in the market (the Heatcraft IntelliGen Refrigeration Controller,) the student can perform educational tasks such as programming of parameters and troubleshooting common failures. Airflow can be controlled to simulate various refrigeration field situations. Various faults which can be triggered to teach the student to recognize and troubleshoot common refrigeration problems, such as an open run capacitor, defective compressor valves, and open temperature sensors.*

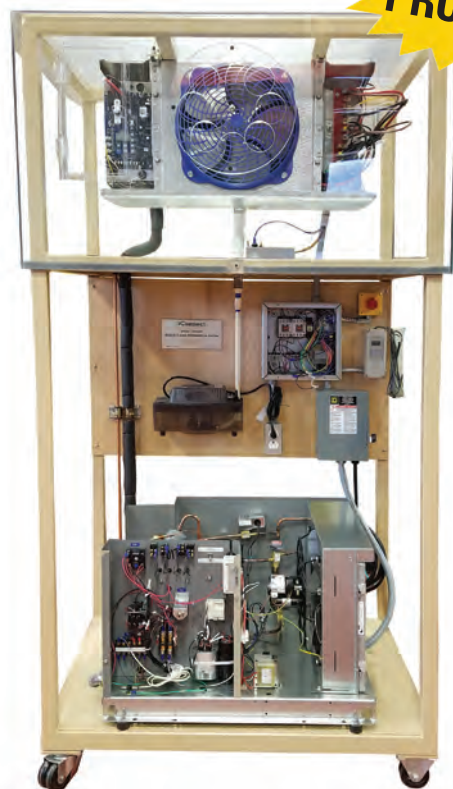
### Specifications

Electrical Requirements: 240V/208V; 60Hz; 15A; Single phase

Uses R449A refrigerant

Includes a fused disconnect, emergency stop switch, thermostat, condensate drain pan, condensate pump, and auxiliary heater to control load

*NOTE: 240V plug not included*



**Shipping Weight: 800 lbs.**

**Shipping Dimensions: 40" L x 30" W x 79" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



# HVAC CURRICULUM

**NEW  
PRODUCT**

## 1 PRACTICE SAFE WORK HABITS

- OSHA Regulations
- Safe refrigerant handling practices
- Safe use of a portable fire extinguisher

## 2 DEMONSTRATE KNOWLEDGE OF REFRIGERATION SCIENCE

- Matter & Energy
- Thermodynamics
- P/T Relationships
- Refrigerants

## 3 COMFORT CONDITIONS AND TYPES OF COOLING SYSTEMS

- Comfort Conditions
- Identifying Cooling Systems

## 4 EXPLAIN THE OPERATION OF THE VAPOR COMPRESSION CYCLE

- Vapor compression cycle operation
- Different refrigeration system applications

### FEATURES:

- Written for the TU-805 trainer and included iManifold® 900C kit
- Smart device for display of iManifold® gauges is not included. The iManifold® app is a free download off the Apple or Android app store.
- Recommended text is *Fundamentals of HVACR, 3rd Edition*, by Carter Stanfield and David Skaves
- Hosted platform by Digitell – they provide technical support
- Delivered online – Power Point presentations, videos, lab sheets and tests are available on the website, lecture notes are sent directly to instructor.
- Lab sheets are downloadable PDF forms
- Lecture notes are emailed to instructor in PDF format
- Unused student licenses will roll over until they are all assigned.
- Once assigned, the student license is 2 year access
- For our launch, there is no minimum number of licenses
- Contact your iConnect® Training representative for pricing and package options

**iCONNECT® TRAINING BASIC  
REFRIGERATION FUNDAMENTALS COURSE  
BY CARTER STANFIELD AND JASON OBRZUT, CMHE**



## TU-805 MOBILE TABLE-TOP AIR CONDITIONING AND REFRIGERATION TRAINER

*This training unit demonstrates basic refrigeration and air conditioning principles in a compact size perfect for classroom or mobile training.*

### Specifications

Electrical Requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

Overall Size: 34" L x 16" W x 16" H

Weight: 80 lbs.

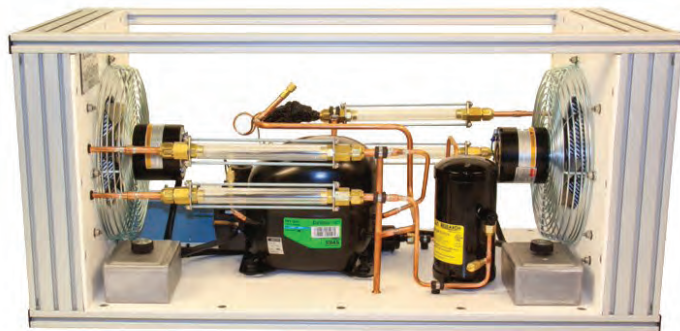
1/3 HP hermetically sealed reciprocating compressor.

### Features

- Lightweight for easy on-the-go training; weighing only 80 lbs., this unit can be easily moved, transported and stored.
- Variable fan speed controls for evaporator and condenser load adjustment
- Sight glasses at inlet and outlet of evaporator and condenser constructed of explosion-proof, tie-bolt design
- Conditions of refrigerant and oil can be observed under fluid and gas stages of operation
- Evaporator and condenser copper tube coils with aluminum fins
- Drip pan located under the evaporator for condensation drain
- Includes operation manual



*\*Convenient push cart available separately*



**Shipping Weight: 230 lbs.**

**Shipping Dimensions: 36" L x 44" W x 25" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



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## TU-810 EEV TABLE-TOP AIR CONDITIONING AND REFRIGERATION TRAINER

*This training unit demonstrates a basic refrigeration and air conditioning system featuring an electronic expansion valve.*

### Specifications

Electrical Requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

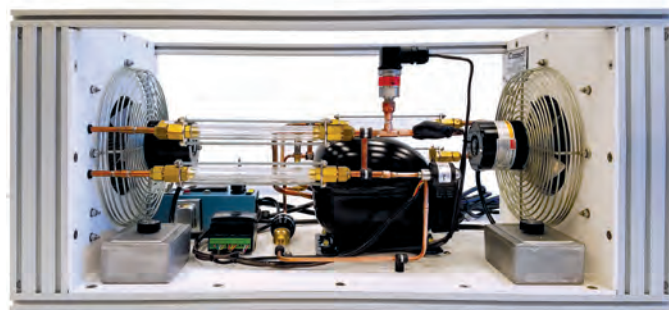
Overall Size: 34" L x 16" W x 16" H

Weight: 80 lbs.

1/3 HP hermetically sealed reciprocating compressor.

### Features

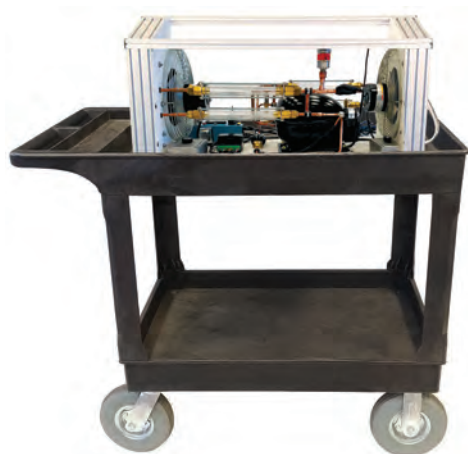
- Electronic Expansion Valve (EEV) to control the flow of refrigerant with a sophisticated design. This cutting-edge technology can also operate as a fixed orifice metering device.
- Demonstrate, operate and program an EEV electronic controller.
- Easy access for electrical measurements.
- Lightweight for easy on-the-go training; weighing only 80 lbs., this unit can be easily moved, transported and stored.
- Variable fan speed controls for evaporator and condenser load adjustment
- Sight glasses at inlet and outlet of evaporator and condenser constructed of explosion-proof, tie-bolt design
- Conditions of refrigerant and oil can be observed under fluid and gas stages of operation
- Evaporator and condenser copper tube coils with aluminum fins
- Drip pan located under the evaporator for condensation drain
- Includes operation manual



**Shipping Weight: 230 lbs.**

**Shipping Dimensions: 36" L x 44" W x 25" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



*\*Convenient push cart available separately*

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## TU-100 BASIC REFRIGERATION TRAINER

*This training unit demonstrates domestic refrigerators, freezers, self-contained air conditioning units and reverse cycle or heat pump systems.*

### Specifications

Electrical requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

Overall Size: 34.5" L x 18" W x 77.5" H

1/3 HP hermetically sealed reciprocating compressor.

Panels are 1/4" thick HDPE with steel reinforced component shelf

### Features

- Sight glass tubes at inlet and outlet of evaporator and condenser constructed of explosion-proof, tie-bolt design
- Drip pans with drains located under each evaporator and condenser
- Uses popular, brand name components
- Color-coded valves, gauges, and hand valves to bypass various components and change from cooling to heating (heat pump operation)
- Conditions of refrigerant and oil can be observed under various methods of operation
- Pressure gauges located at each point in which pressure variation is likely to occur
- Refrigerant flow to evaporator metered either by capillary tube, automatic expansion valve (AXV), or thermostatic expansion valve (TXV)
- Evaporator and condenser copper tube coils with aluminum fins and variable speed fans
- A combination low pressure control and high pressure cutout and a thermostatic control with a range of -30°F to 100°F
- High and low pressure cutout in the circuit at all times to prevent damage to the compressor
- Variable fan speed controls for evaporator and condenser load adjustment
- Includes booklet which contains a lab manual, instruction guide, and operation guide



**Shipping Weight: 470 lbs.**

**Shipping Dimensions: 49" L x 45" W x 87" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



# iConnect®

TRAINING

## TU-130 BASIC REFRIGERATION TRAINING UNIT WITH WATER COOLED CONDENSER

*This training unit demonstrates domestic refrigerators, freezers, and self-contained air-conditioning units with a co-axial, tube-in-tube heat exchanger/condenser.*

### Specifications

Electrical requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

Overall Size: 34.5" L x 18" W x 77.5" H

1/3 HP hermetically sealed reciprocating compressor.

Panels are 1/4" thick HDPE with steel reinforced component shelf

### Features

- Sight glass tubes at inlet and outlet of evaporator and condenser constructed of explosion-proof, tie-bolt design
- Drip pan with drain located under evaporator
- Color-coded valves, gauges, and hand valves to bypass various components
- Conditions of refrigerant and oil can be observed under various methods of operation
- Pressure gauges located at each point in which pressure variation is likely to occur
- Refrigerant flow to evaporator metered either by capillary tube, automatic expansion valve (AXV), or thermostatic expansion valve (TXV)
- Aluminum fin, copper tube evaporator with variable speed fan for load adjustment
- Water cooled condenser with standard hose connections and ball valves to meter water flow
- A combination low and high pressure control in the circuit at all times to prevent damage to the compressor
- Thermostatic control with a range of -30°F to 100°F
- High pressure cutout in the circuit at all times to prevent damage to the compressor
- Includes Operation Manual



**Shipping Weight: 450 lbs.**

**Shipping Dimensions: 49" L x 45" W x 87" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



**iConnect®**  
TRAINING

## TU-105 COMMERCIAL REFRIGERATION TRAINER

*This commercial refrigeration trainer is an advanced unit used to train students in commercial refrigeration and air conditioning systems.*

### Specifications

Electrical requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

Overall Size: 72" L x 20.75" W x 77.5" H

Compressor: Single phase, 1/2 HP semi-hermetic (bolted reciprocating-type)

Panels: 1/4" thick HDPE with steel reinforced component shelf

### Features

- Evaporator Pressure Regulator (EPR)
- 2 Liquid Refrigerant Flow Meters
- Customizable isolated access ports for alternate metering devices
- Sight glass tubes at inlet and outlet of evaporators and condenser constructed of explosion-proof, tie-bolt design
- Cut-out and by-pass valves
- Hand valves allow malfunctions to be simulated
- Many control changes are possible
- Combination low pressure and high pressure control
- Thermostatic control with an adjustable range of -30°F to 100°F
- 2 solenoid liquid line valves
- Evaporators and condenser: Copper tube coils with aluminum fins and variable speed fans mounted on back of panel
- Includes Lab Manual and Operation Instructions



**Shipping Weight: 950 lbs.**

**Shipping Dimensions: 81" L x 45" W x 88" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



# iConnect<sup>®</sup>

TRAINING

## TU-106 DUAL-APPLICATION COMMERCIAL REFRIGERATION TRAINER

*This deluxe trainer can show operation of multi-evaporator systems, dual temperature applications (low and medium) and an electric resistant heat defrost cycle.*

### Specifications

Electrical requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

Overall Size: 72" L x 20.75" W x 79" H

Compressor: Single phase, 1/2 HP semi-hermetic (bolted reciprocating-type)

Panels: 1/4" thick HDPE with steel reinforced component shelf

### Features

- Customizable isolated access ports for alternate metering devices
- Defrost Timer
- 2 Liquid Refrigerant Flow Meters
- Electrical Fault Package
- Evaporator Pressure Regulator (EPR)
- Sight glass tubes at inlet and outlet of evaporators and condenser constructed of explosion-proof, tie-bolt design
- Cut-out and by-pass valves
- Hand valves allow malfunctions to be simulated
- Many control changes are possible
- Thermostatic control with an adjustable range of -30°F to 100°F
- 2 solenoid liquid line valves
- Condenser and Low and Medium Temperature Evaporators: Copper tube coils with aluminum fins and adjustable speed fans mounted on back of panel.
- Combine low pressure and high pressure control
- Includes Lab Manual and Operation Instructions



*Electrical Fault Package on the back of the trainer*

**Shipping Weight: 1,000 lbs.**

**Shipping Dimensions: 81" L x 45" W x 88" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



# iConnect®

TRAINING

## TU-420 REFRIGERATION TRAINER DEMONSTRATOR

*This refrigeration demonstrator uses the 4 main parts of the refrigeration system (condenser, compressor, evaporator and control device) that demonstrate basic refrigeration principles. The components then work together to cool a small enclosed refrigerator compartment fully featured with an electronic temperature control device.*

### Specifications

Electrical requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

Overall Size: 19" L x 19" W x 50" H

Weight: 115 lbs.

### Features

- Components arranged to illustrate the refrigeration cycle
- 3 strategically located explosion-proof sight glasses permit monitoring of the refrigerant as it circulates throughout the entire refrigeration system
- 120VAC with circuit breaker
- Comes completely assembled, charged with refrigerant, and ready to operate
- Includes Operation Manual



**Shipping Weight: 260 lbs.**

**Shipping Dimensions: 37" L x 37" W x 61" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



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TRAINING

## TU-155 INDUSTRIAL REFRIGERATION TRAINER

*This trainer enables students to learn principles of commercial and industrial refrigeration systems.*

### Specifications

Electrical Requirements: 240VAC; 60Hz; 30A

Uses R422B Refrigerant

Compressor: Semi-hermetic type with 2 HP capacity

Overall Size: 95" L x 25.25" W x 80" H

Water Tower: 115VAC; 60Hz; single phase; 60,000 BTU/hour  
(This is an optional add-on)

Utility Requirements: city water, drain, and means to vent water vapor

### Features

- Trainer is self-contained and freestanding with storage space underneath
- 2 forced air type evaporators have 2 common types of defrost mechanisms complete with solenoids, timers, and associated equipment
- 2 standard types of water cooled condensers (tube-in-tube and shell-in-tube) are supplied and piped to be used with city water and optional water tower
- Hot gas by-pass system keeps operating pressures of the compressor constant regardless of the evaporator level
- Crankcase pressure regulator allows the compressor to start easily under high evaporator pressures
- Includes Instructor Guide

\* NOTE: 240V plug not included

*PLEASE NOTE: Customer responsible for all proper set-up.  
Water Tower set-up includes being set, plumbed and wired  
on location, handled by the customer.*



OPTIONAL WATER TOWER AND WATER PUMP

### WILL SHIP IN 1 OR 2 CRATES

#### Shipping Weight and Dimensions:

**Crate 1:** 1,200 lbs. / 99" L x 48" W x 92" H

**Crate 2:** 150 lbs. / 44" L x 44" W x 66" H  
(Crate 2 is the optional Water Tower)

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



**iConnect®**  
TRAINING

## TU-206 RESIDENTIAL AIR CONDITIONING TRAINER

*Real world experience in troubleshooting wiring, piping and controls of a working air conditioning unit for a whole house.*

### Specifications

Electrical requirements: 240VAC; 60Hz; 15A

Uses R410a Refrigerant (can be pumped down)

TU-206 Overall Size: 70" L x 33" W x 67" H

TU-206C Overall Size: 70" L x 33" W x 85" H

### Features

- Fault simulation with two refrigerant faults and four electrical faults
- Provides numerous real-world applications and trouble-shooting examples
- Refrigeration cycle can be observed
- High-pressure refrigeration tubing piped to sight glass for direct observation of the fluid stage of the refrigeration cycle
- Pressure, temperature and electrical readings can be made
- Visible wiring and piping
- Metering device/thermostatic expansion valve
- Necessary line and low voltage wiring
- Low voltage transformer and wiring
- Includes Lab Manual and book *Refrigeration and Air Conditioning Technology*
- Operation Manual describing how the unit works as well as its faults
- Optional add-on equipment package provides all the professional tools necessary to complete service checks (see page 20)

### Optional Unit Configuration

- **TU-206:** Base Unit (without TV and duct work)
- **TU-206C:** Base Unit plus TV and duct work

\* NOTE: 240V plug not included



**Shipping Weight: 785 lbs.**

**Shipping Dimensions: 96" L x 43" W x 72" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



# iConnect®

TRAINING

## TU-406 RESIDENTIAL HEAT PUMP TRAINER

*Real world experience in troubleshooting wiring, piping and controls of a working air conditioner / heat pump unit for a whole house.*

### Specifications

Electrical requirements: 240VAC; 60Hz; 15A

Uses R410a Refrigerant (can be pumped down)

TU-406 Overall Size: 70" L x 33" W x 67" H

TU-406C Overall Size: 70" L x 33" W x 85" H

### Features

- Fault simulation with two refrigerant faults and four electrical faults
- Provides numerous real-world applications and trouble-shooting examples
- Refrigeration heat pump cycle can be observed
- High-pressure refrigeration tubing piped to sight glass for direct observation of the fluid stage of the refrigeration cycle
- Pressure, temperature and electrical readings can be made
- Visible wiring and piping
- Reversing valve operated through a digital thermostat
- Metering device/thermostatic expansion valve
- Necessary line and low voltage wiring
- Low voltage transformer and wiring
- Includes Operation Manual and book *Heat Pumps: Operation, Installation & Service*, with student assignments and Instructor's Guide CD
- Operation Manual describing how the unit works as well as its faults
- Optional add-on equipment package provides all the professional tools necessary to complete service checks (see page 20)

### Optional Unit Configuration

- **TU-406:** Base Unit (without TV and duct work)
- **TU-406C:** Base Unit plus TV and duct work

\* NOTE: 240V plug not included



**Shipping Weight: 750 lbs.**

**Shipping Dimensions: 80" L x 43" W x 72" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



# iConnect®

TRAINING

## TU-701 TABLE-TOP HEAT PUMP TRAINER

*Real world experience in troubleshooting wiring, piping and controls on a working heat pump unit. The trainer is perfect for introduction to heat pump theory.*

### Specifications

Electrical Requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

Overall Size: 34" L x 17" W x 32" H

### Features

- Pre-piped and pre-wired trainer with all in complete view
- Refrigeration heat pump cycle can be observed
- Pressure, temperature and electrical readings can be made
- Sight glass tubes before and after metering device constructed of explosion-proof, tie-bolt design
- Evaporator and condenser: copper tube coils with aluminum fins and fixed speed fans
- Pre-piped suction and high pressure refrigeration tubing is visible for direct observation of the fluid and gas stages of the refrigeration cycle
- All necessary line voltage wiring
- 120VAC with circuit breaker
- Includes Operation Manual and book *Heat Pumps: Operation, Installation & Service*, with student assignments and Instructor's Guide CD



**Shipping Weight: 175 lbs.**

**Shipping Dimensions: 37" L x 48" W x 40" H**

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



**iConnect®**  
TRAINING

# TRAINING UNITS

**CUSTOMIZE  
YOUR TRAINING  
UNIT!**

## EXAMPLES

### TU-208 COMBINATION FORCED AIR & HYDRONIC HEATING TRAINER

*This combination trainer provides demonstration and service practice with forced air and hydronic heating systems, including hot water heating systems. All components are standard brands of equipment, full size, and completely operational.*

#### Specifications

Electrical requirements: 240VAC; 60Hz (Amp requirement varies with model)

Uses R410a Refrigerant

Trainer can be custom built to meet your needs

#### Features

- A student experiment manual specifically written for this equipment
- Experiments include: Introduction of Principles, References, Pre-Lab Questions, Lab Procedure, Post-Lab Exercises
- Experiment topics include: Forced Air Furnace, Circulation Systems, Burner Systems, Flue Gas Analysis, Duct System, Air Balancing, Flame Safety Devices, Temperature and Humidity Control, Heat Transfer Devices, Oil Fired Boiler and Burner Systems, Draft Regulators and Piping Systems
- Includes Operations Manual and various textbooks depending on customization

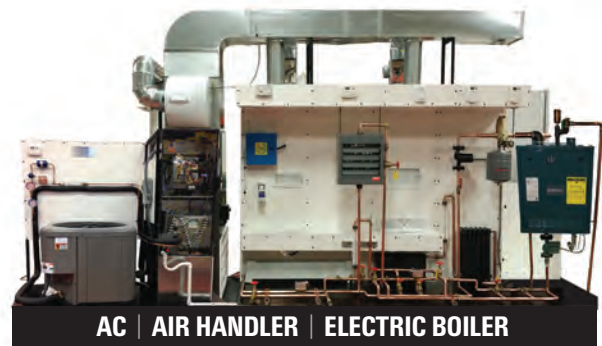
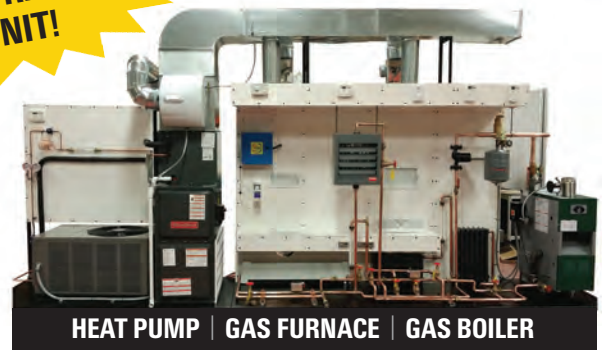
*NOTE: 240V plug not included*

This training unit includes a standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



# iConnect®

TRAINING



### CUSTOMERS HAVE THE OPTIONS OF:

- Heat Pump *or* Condensing Unit
- Gas Furnace *or* Air Handler
- Oil-Fired Boiler *or* Electric Boiler *or* Gas Boiler

### MORE COMBINATIONS AVAILABLE!

**4 CRATES** Shipping Weight:

(3) at 600 lbs, (1) at 200 lbs; 2,000 lbs total

**Shipping Dimensions:**

Crates 1-3: 79" L x 43" W x 72" H

Crate 4: 79" L x 43" W x 36" H

## TU-302 CONTROL BOARD, ELECTRIC HEAT TRAINER

*This trainer is perfect for students to learn the basics of electric heat control systems.*

### Specifications

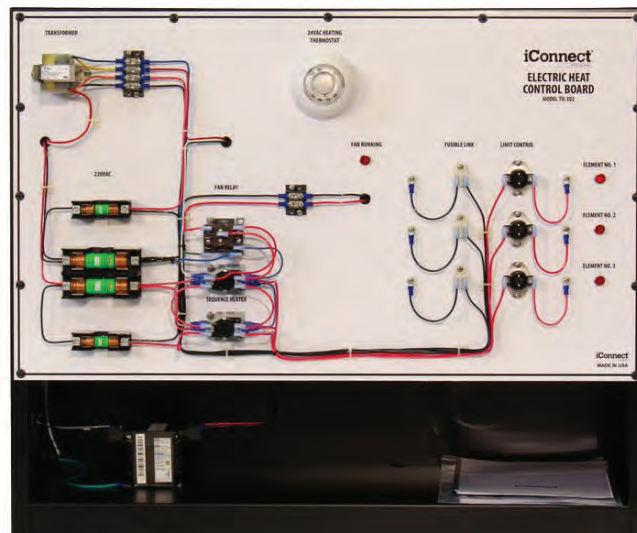
Electrical Requirements: 120VAC; 60Hz; 15A

Overall Size: 35" L x 13" W x 30" H

Weight: 70 lbs.

### Features

- Complete set of operating controls of an electric furnace
- Wired 3 element furnace circuit
- Simulated heater elements operation shown by signal lamps
- Sequences
- Klaxon limit switch
- Fusible link safety device
- Thermostat
- Transformer steps voltage from 120 VAC to 240 VAC
- Fan delay control
- Board designed for use on a bench or table
- Includes Instructor Guide



**Shipping Weight: 200 lbs.**

**Shipping Dimensions: 37" L x 48" W x 40" H**

## TU-502 GAS FIRED HEATING CONTROL BOARD

*The control board contains a complete set of electrical controls for a furnace, with air conditioning, to demonstrate basic principles and provide electrical service experience.*

### Specifications

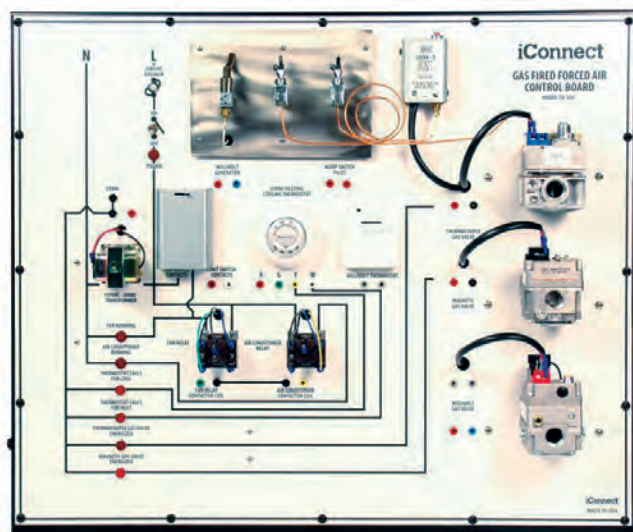
Electrical Requirements: 120VAC; 60Hz; 15A

Overall Size: 35" L x 13" W x 30" H

Weight: 70 lbs.

### Features

- All components are panel mounted and the wires are brought to terminals on the front panel
- Equipped for both thermocouple and thermopile systems
- Signal lamps show simulated operation of burner valves, circulating fan air, and air conditioning compressor
- Includes Operation Manual



**Shipping Weight: 220 lbs.**

**Shipping Dimensions: 37" L x 48" W x 40" H**

# iConnect®

TRAINING

## TU-521 CONTROL BOARD, SINGLE PHASE COMPRESSOR TRAINER

*Consists of an actual single phase compressor with components necessary to demonstrate all common types of controls in refrigeration and air conditioning systems.*

### Specifications

Electrical Requirements: 120VAC; 60Hz; 15A

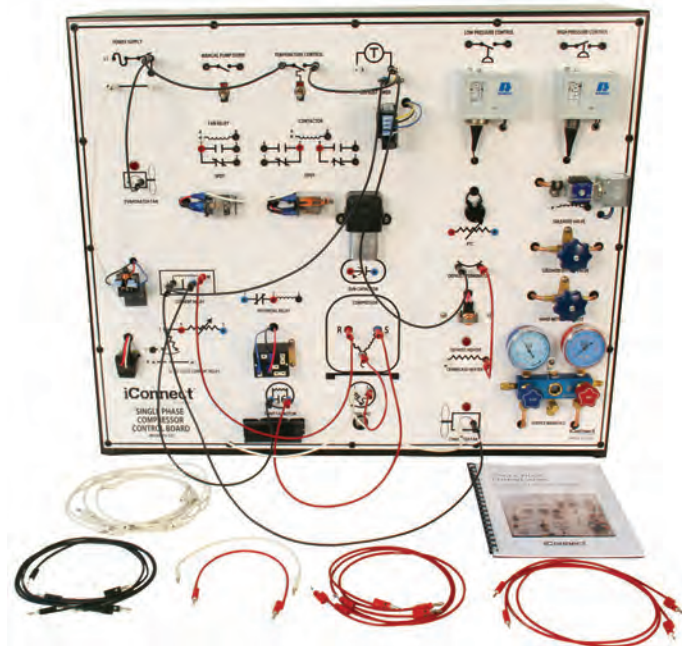
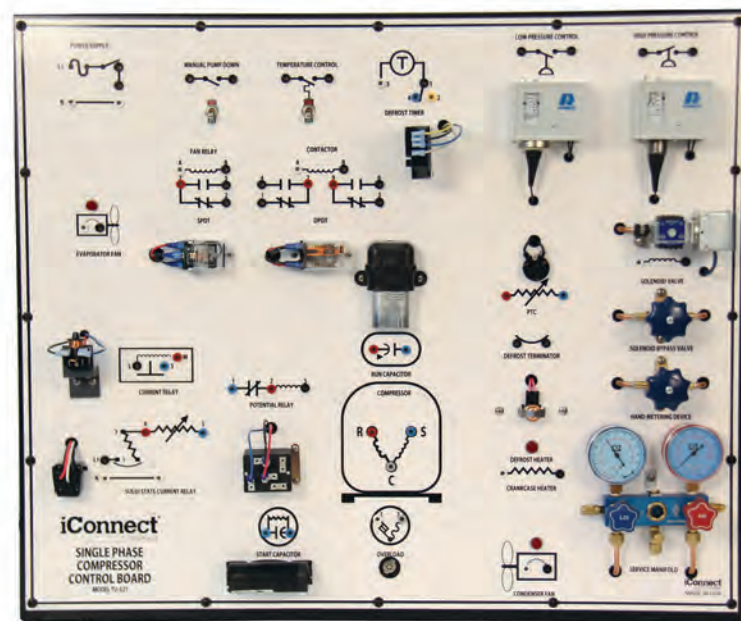
Uses R134a Refrigerant

Overall Size: 35" L x 13" W x 30" H

Weight: 70 lbs.

### Features

- Components are put into the system with patch cords
- Shut-off valves in suction and pressure lines allow pressures to be varied to operate the low pressure control and high pressure cutout
- PSC (permanent split capacitors) and run capacitors are supplied for capacitor (capacitive) start systems
- Includes Operation Manual



Shipping Weight: 225 lbs.

Shipping Dimensions: 37" L x 48" W x 40" H

# iConnect<sup>®</sup>

TRAINING

## TU-101 DOMESTIC REFRIGERATION BUILD-UP TRAINER

*Companion to the Motors, Controls and Circuit Trainer (Model TU-501) described on page 27. Designed for the student who has a working knowledge of the theory of refrigeration. Using this trainer, students are asked to design a system to match specifications of a particular situation. Instruction kit and experiment manual provide set-up and assembly directions.*

*The double evaporator simulates a dual evaporator system application that demonstrates basic principles and provides service experience.*

### Specifications

Electrical Requirements: 120VAC; 60Hz; 15A

Uses R134a Refrigerant

Overall Size: 34.5" L x 18" W x 73" H

### Build-up Trainer

Components are provided for backboard mounting in preferred arrangement. (Mounting hardware not included.)

### Features

- 1/4 HP hermetic compressor with air-cooled condenser
- Domestic freezer static evaporator
- Finned high humidity evaporator
- Capillary tube
- Dehydrator
- Temperature control
- Hand valve to regulate temperature differences in evaporator
- Includes Lab Manual
- Instructor Guide



**Shipping Weight: 350 lbs.**

**Shipping Dimensions: 49" L x 45" W x 87" H**

**iConnect<sup>®</sup>**  
TRAINING

## TU-501 MOTORS, CONTROLS AND CIRCUITS BUILD-UP TRAINER

*Designed for the student with a working knowledge of the theory of refrigeration electrical control systems. Using this trainer, students are required to design a system to match specifications of a particular situation.*

*Connections between components are wired by the students.*

### Specifications

Electrical Requirements: 120/240VAC; 60Hz; single phase

HDPE Panels: 1/4" thick with steel reinforced component shelf

Overall Size: 34.5" L x 18" W x 77.5" H

### Build-up Trainer

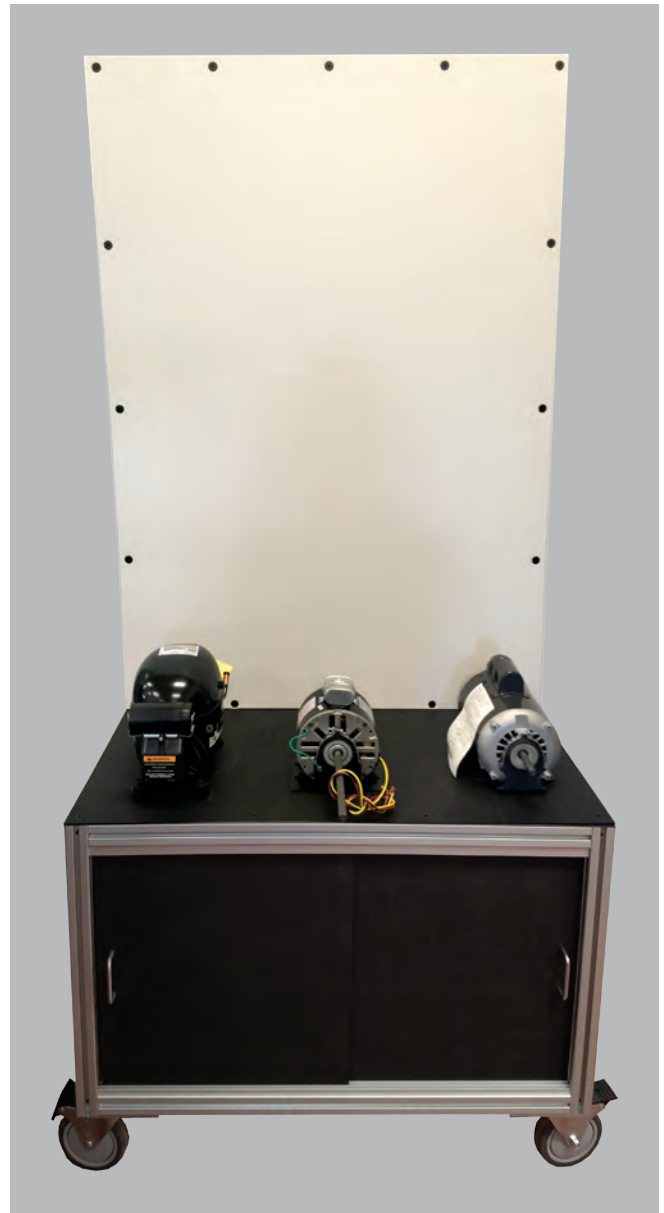
Components are provided for backboard mounting in preferred arrangement. (Mounting hardware not included.)

### Features

- Single phase disconnect
- 24V transformer
- Duplex receptacle
- Low voltage thermostat
- Defrost timer
- Low-pressure switch
- High-pressure switch
- Oil pressure switch
- Fan/limit switch
- Heating sequencer
- Motor starter
- Start/stop switch
- Current relay-potential relay
- Start capacitor-run capacitor
- Single-phase compressor
- Capacitor start motor-PSC motor
- Enclosed storage compartment
- Includes a textbook with explanations of the theory of operation



*Example of lay-out build-up.*



**Shipping Weight: 350 lbs.**

**Shipping Dimensions: 49" L x 45" W x 87" H**

# iConnect®

TRAINING

## TUE-150 RESIDENTIAL WIRING TRAINER

*This Trainer Panel is used to demonstrate electrical principles typically found in a residential use. It also has provisions for extensive switching and connection of lamps and outlets. The trainer has a 24 volt power supply that is used to wire and test all circuits. After the instructor has approved wiring, 120 VAC can be applied using the key-lock circuit breaker control. The ability to use low voltage for testing and 120 VAC for final wiring is a valuable teaching aid. The inclusion of the dual 24 VAC power supply makes this a very useful trainer for introductory classes. Since all initial breadboarding and testing can be done at low voltage, the 120 VAC is only made available after the instructor has used the key to turn on the Electro-Lock to apply 120 VAC. Students learn wiring as well as the proper electrical hookups from the manual that is included.*

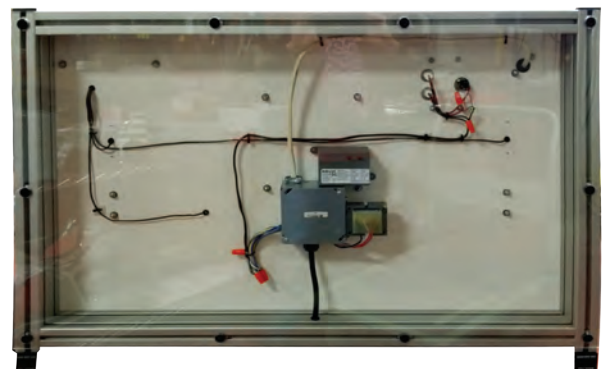
### Specifications

Electrical requirements: 120VAC

Overall size: 31" L x 36" W x 25" H

### Features

- Low voltage pushbutton "doorbell" switch
- Pilot light to indicate low voltage, 24V, "ON"
- A low voltage doorbell
- Two standard duplex receptacles
- GFI duplex receptacle
- Two lamp sockets
- Pilot light to indicate 120VAC is "ON"
- Two three-way toggle light switches
- Standard residential 4 circuit breaker panel
- Three wire grounding 120VAC cord
- Includes Operation Manual



**Shipping Weight: 175 lbs.**

**Shipping Dimensions: 37" L x 48" W x 40" H**

**iConnect®**  
TRAINING

## TUE-200 RESIDENTIAL WIRING DEMONSTRATOR

*Students gain a full understanding of National Electrical Code residential electrical circuits. Through real-world application practice, students attain a substantial beginning level skill and proficiency using tools of the electrical trade.*

### Specifications

Electrical requirements: 240VAC

Overall size: Triangular Layout: 67" x 67" x 99", 90" Height

### Features

- Casters, locking hardware, inter-connecting twist lock plugs and caps to connect the ceiling section. Folds to occupy minimum floor space. Sturdy construction and completely wired. Trainer will provide 100-Amp service.
- 2 & 3-way switches
- Lights controlled from 1 or more locations
- Central distribution with circuit breakers
- EMT conduit, romex and greenfield wiring
- In-wall and surface mounted wiring devices
- Low voltage signaling devices, 120 and 240VAC, 3-wire Edison wiring
- Control and installation – fluorescent lighting
- Control and installation – incandescent lighting
- Includes two books, *National Electrical Code Book* and *Electrical Wiring Residential*, that offer students opportunities for hands-on practice in interpreting and applying Code requirements, making this an ideal resource for those who will work in the residential electrical industry.

\* NOTE: 240V plug not included



**Add an optional UEI DL429B Multimeter to this trainer so you can project electrical readings real-time in the classroom using the iManifold® app.**

**Shipping Weight: 650 lbs.**

**Shipping Dimensions: 93" L x 44" W x 64" H**

# iConnect®

TRAINING

## EP-525 RESIDENTIAL A/C AND HEAT PUMP EQUIPMENT PACKAGE

*This is a great selection of tools and analytic equipment for the HVAC Tech. A service wrench sized for accessing refrigerant ports and valves, a Halide Leak Detector for detecting refrigerant leaks, a Super Vak-Check for measuring vacuum, a multi meter for electrical readings, and a high quality vacuum pump for pulling vacuum on a system.*

### Features

- 1/4" x 5/16" service wrench
- Leak detector kit
- Multimeter with temperature probes and clamp
- Vak-Check
- 6.0 CFM Vacuum pump



## EP-626 DELUXE RESIDENTIAL A/C AND HEAT PUMP EQUIPMENT PACKAGE

*All the same great tools and analytic equipment found in the EP-525, plus an iManifold kit.*

### Features

- All the features in EP-525 kit shown above, plus:
- A standard-range iManifold® 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works with most smart devices (customer to provide, with appropriate cable.) 1-year iManifold® Pro+ subscription is included for one user; additional student subscriptions are available.



# iConnect<sup>®</sup>

TRAINING

# CUSTOMIZATIONS

*We are pleased to quote any specialty training unit you would like! We can customize our training units to meet your needs. From accommodating your country's electrical needs to helping you create something completely new, we are here to work with you.*

Here at North Park Innovations Group, designing your custom training unit is a personalized, collaborative, and enjoyable experience. Once we have received your request, we will join you for a team consultation where we get to know you and gain an understanding of your needs and vision. Since our training units are built on site, we can keep you updated through all stages of the design and build process. Partnering in this way ensures you'll have great support and service while we design and build your new training unit, and for years to come as you put it to work.

Our custom training units are used on Air Force bases, at HVAC contractor training facilities and in vocational programs around the world. We would be delighted to discuss your custom training unit design. Please visit us at [www.iConnectTraining.com](http://www.iConnectTraining.com) and send us your requests today, or call 716.699.2031.



*Customized TU-106*



*Customized TU-130*



*Customized for a leading contractor in Colorado, with selected features from our TU-208.*

# iConnect<sup>®</sup>

TRAINING

## TU-900 SunTrac HYBRID TRAINING UNIT: Demonstrating the power of the sun for the refrigeration and cooling cycle

Technicians will learn the newest technology in HVAC/R with this hybrid thermal demonstrator trainer: a 3.5-ton package unit, combined with the patented SunTrac thermal system. It will have our popular, high-quality sight glasses for viewing the refrigerant cycle, clear panels to observe the internal systems of the package unit, and heavy duty wheels for ease of rolling from the classroom into the outdoor sun for a live demonstration of the panel's tracking technology. It will be integrated with data acquisition, connecting with the iManifold platform to show real time data. This energy-efficient learning tool will be a must in the classroom of the future.



## FEATURES

**This Hybrid-Thermal approach uses the sun's energy to displace 25% - 40% of the electrical energy used by the HVAC system.**

**SunTrac features the iManifold platform for installation, monitoring & reports**

**Demonstrate real-time savings and reports**



*Completing installation of a TU-900 at Chino Valley, California.*

**iConnect<sup>®</sup>**  
TRAINING

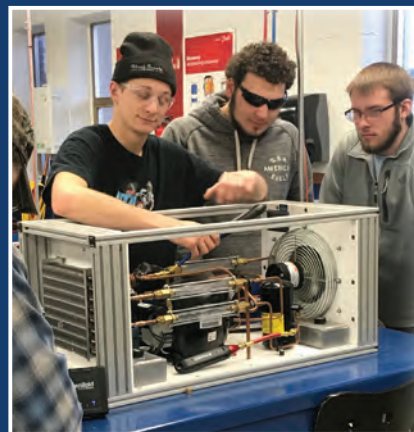
This training unit includes a standard-range iManifold<sup>®</sup> 900C System Analyzer kit for real-time system performance analysis suitable for projector or large screen display in the class-room. This kit works on most smart devices (customer to provide, with appropriate cable.) 1-year iManifold<sup>®</sup> Pro+ subscription is included for one user; additional student subscriptions are available. Also, included is a card to request a complementary iManifold PULSE Kit (single-circuit 801PL) with a one-year Pulse Subscription. Value of \$815! We hope you can use this latest technology, a leave-behind installation for a package unit to teach your students the installation and monitoring process and watch the continuous data feed for educational opportunities.



## WHAT OUR CUSTOMERS ARE SAYING

*"The TU-805 trainers we purchased have been the best money I have spent for my lab, they really help explain the refrigeration cycle to my students. It makes it so much easier when they can see what is going on and follow the flow. I also like the ability to control the fan speeds so you can demonstrate plugged filters and coils, they are truly amazing. One of my first year students even made the comment that they are the greatest thing since sliced bread!!! I have to agree with him, as they really help get that "Ah ha" moment when the students get what is going on. Thank you again and I look forward to more products from NPI."*

**- Kyle Braun, HVAC-R Coordinator  
Iowa Central Community College**



*Iowa Central Community College HVAC students learning trouble-shooting on the TU-805.*

**We are proud to have iConnect Training units used for training and teaching HVAC/R techs around the world, including at these facilities:**

Northwest Technical College – Bemidji, MN  
Texas State Tech College, TX  
Salt Lake City Community College, UT  
Tennessee Valley Authority, TN  
Saskatchewan Power, Canada  
Sacramento Job Corps Center, CA  
Lawrence Gardner High School, KS  
Columbus State Community College, OH  
Pulaski Technical College, AR  
Bruce Power, Canada  
Browns Ferry Nuclear Plant, AL  
Delgado Community College, LA  
Sheppard Air Force Base, TX  
Marine Corps Base Camp LeJeune, NC  
Vermont Technical College, VT  
The Refrigeration Institute, NY  
Entrade Aps, Denmark  
Iowa Central Community College, IA  
Travis County, TX

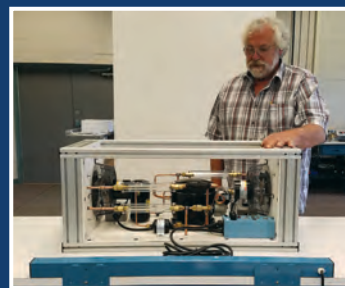
*"I like the fact that we have an unobstructed view of the workings of the air handler, and we can show students the parts without having to take covers off. Now that they are on a smaller platform, it's easier to move from classroom to classroom. These Training Units are well put together, and everything is sturdy. They give us the ability to mimic service problems and have students try to overcome them with good methodology."*

**- Emilio Gelfenstein,  
Campus Director & Chair of HVAC Program  
Florida Career College, where TU-206  
and TU-406 units are installed.**



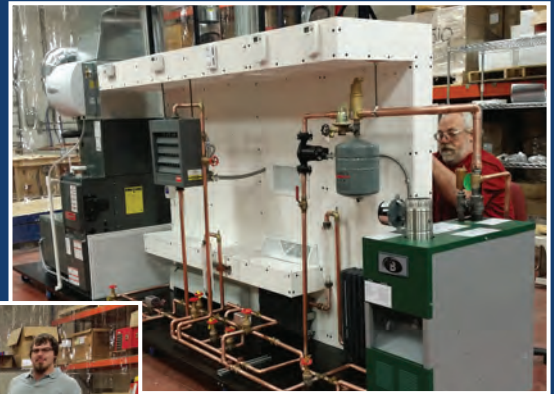
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*Left and Above: Production in progress on various Training Units in our plant.*



*Weighing only 80#, the TU-805/810 trainer can be easily carried by two people for re-locating in your classroom or lab.*

**All Training Units are built right here in our plant  
in Western New York State.**



**iConnect<sup>®</sup>**  
TRAINING

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