

Center Mount and Low Velocity Center Mount Unit Coolers

Air and Electric Defrost Models



*Shown with optional EcoNet® Enabled Controller
and Command Center*

Installation and Operations Manual

Center Mount and Low Velocity Center Mount Unit Coolers

Inspection

When the equipment is received, check the quantity of cartons and crates against the bill of lading. Inspect all containers for visible damage. Report any damage or shortages to the freight company immediately. It is the customer's responsibility to file all claims with the freight company.

Installation

Installation and maintenance are to be performed by qualified personnel who are familiar with local codes and regulations. Installers should have previous experience with this type of equipment.

CAUTION: Avoid contact with sharp edges and coil surfaces. They are potential hazards.

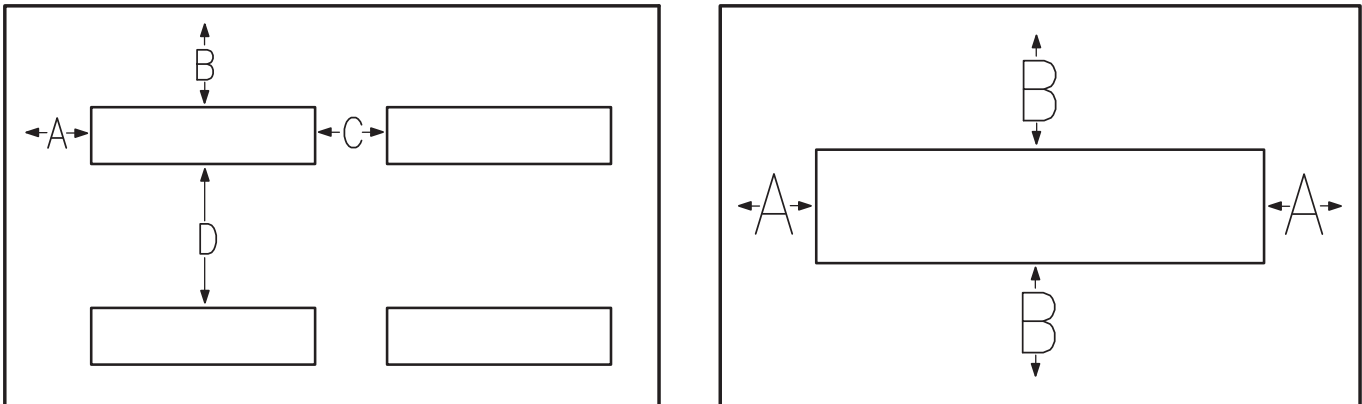
Determine the best location for the unit cooler in the space to be refrigerated. Placement of the unit

should be centered in the room and away from an open door to keep warm, outside air from being drawn into the unit. Center Mount and Low Velocity Center Mount models are dual discharge units. These dual discharge units, draw air up through the fan blades and discharges out the coils length.

Adequate clearances should be maintained to allow for proper air flow through the unit and to allow for regular maintenance and service (See Figure 1 for recommended location guidelines).

The drain line should be pitched a minimum of 4 inches per foot to allow proper drainage and should exit the room as quickly as possible. Do not reduce the drain line size. All drain lines must be trapped outside of the enclosure where the temperature is never below 35°F. Drain lines should run to an open drain and should never be connected directly to a sewage or waste line. Drain lines should be heated and insulated to prevent freezing.

Figure 1



Recommended Maximum/Minimum Dimensions
Center Mount Unit Cooler Installations

A		B		C		D	
MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.
20'	2'	20'	3'	40'	3'	40'	8'

Wiring

For wiring diagrams, see Figures 2, 3 and 4.

Expansion Valve

Expansion valves should be selected and installed in accordance with the valve manufacturers recommendations. All units require externally equalized expansion valves and must have the equalizer line connected. The expansion valve bulb must be insulated and securely clamped at the 4 o'clock or 8 o'clock position on a horizontal run of the suction line. Proper location and full contact of the bulb is extremely important to the performance of the system.

New expansion valves usually need to be adjusted. Superheat settings should be checked after the system has run long enough to reach a balanced state. Low and medium temperature systems will usually operate more efficiently with a superheat setting of 6.5°F at design room temperature (always maintain a 20°F compressor superheat).

To Obtain Evaporator Superheat:

1. Measure the suction line temperature at the expansion valve bulb with an accurate electronic thermometer.
2. Obtain a suction pressure reading at the Schrader fitting at the evaporator suction connection.
3. Convert the pressure reading to temperature by using a temperature/pressure conversion chart.
4. Subtract the converted temperature from the measured temperature. The resulting difference represents the evaporator superheat. (For close coupled systems, it may be necessary to increase the evaporator superheat to insure the minimum acceptable superheat at the compressor.)

The maximum recommended evaporator TD for medium temperature systems is 15°F. The maximum recommended TD for low temperature systems is 13°F.

Evacuation

Proper installation procedures must include a deep evacuation of the system. A clean/dry system is essential when charging refrigerant.

General Maintenance

Disconnect all electrical power to the unit before inspecting or cleaning. Evaporator coils, blades and guards should be checked periodically and cleaned of all dirt or grease accumulation. Do not use ammonia or other cleaning agents that are corrosive to Copper or Aluminum. The drain pan should be lowered and thoroughly cleaned to permanently clear any drain restriction. The fan motors are permanently lubricated and do not require periodic oiling.

Center Mount and Low Velocity Center Mount Unit Coolers

Figure 2

Wiring Diagram - Air Defrost

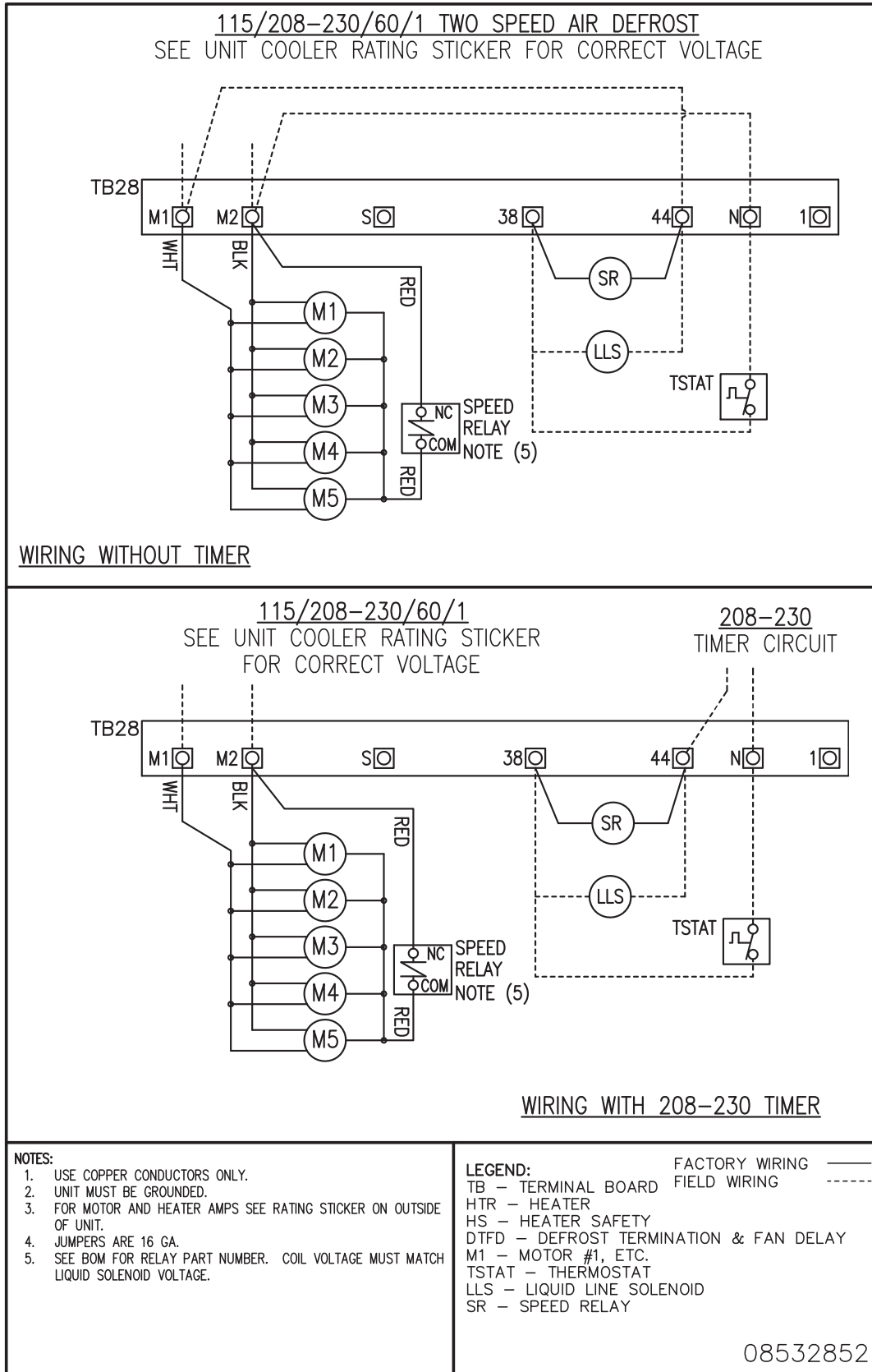
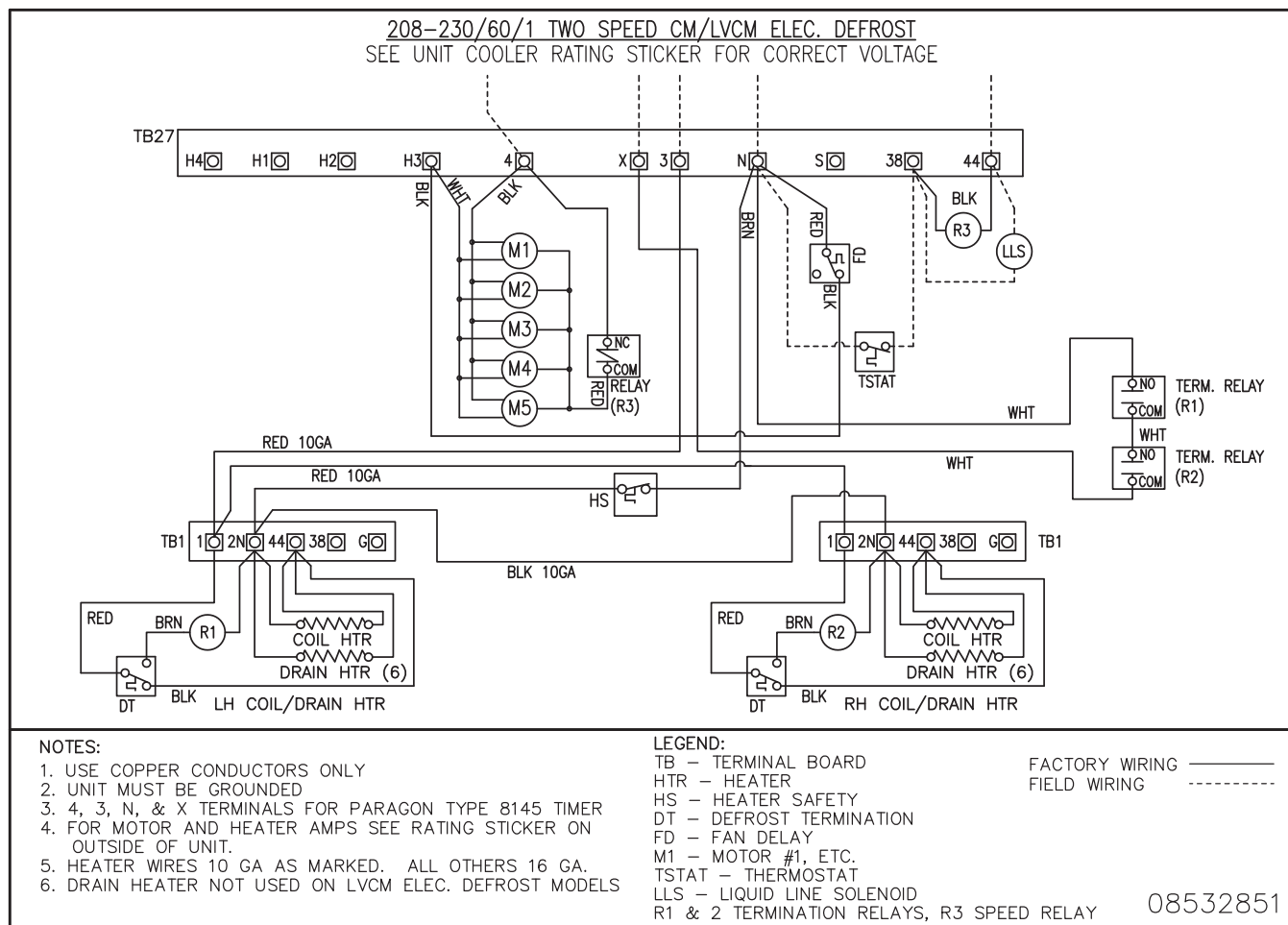


Figure 3

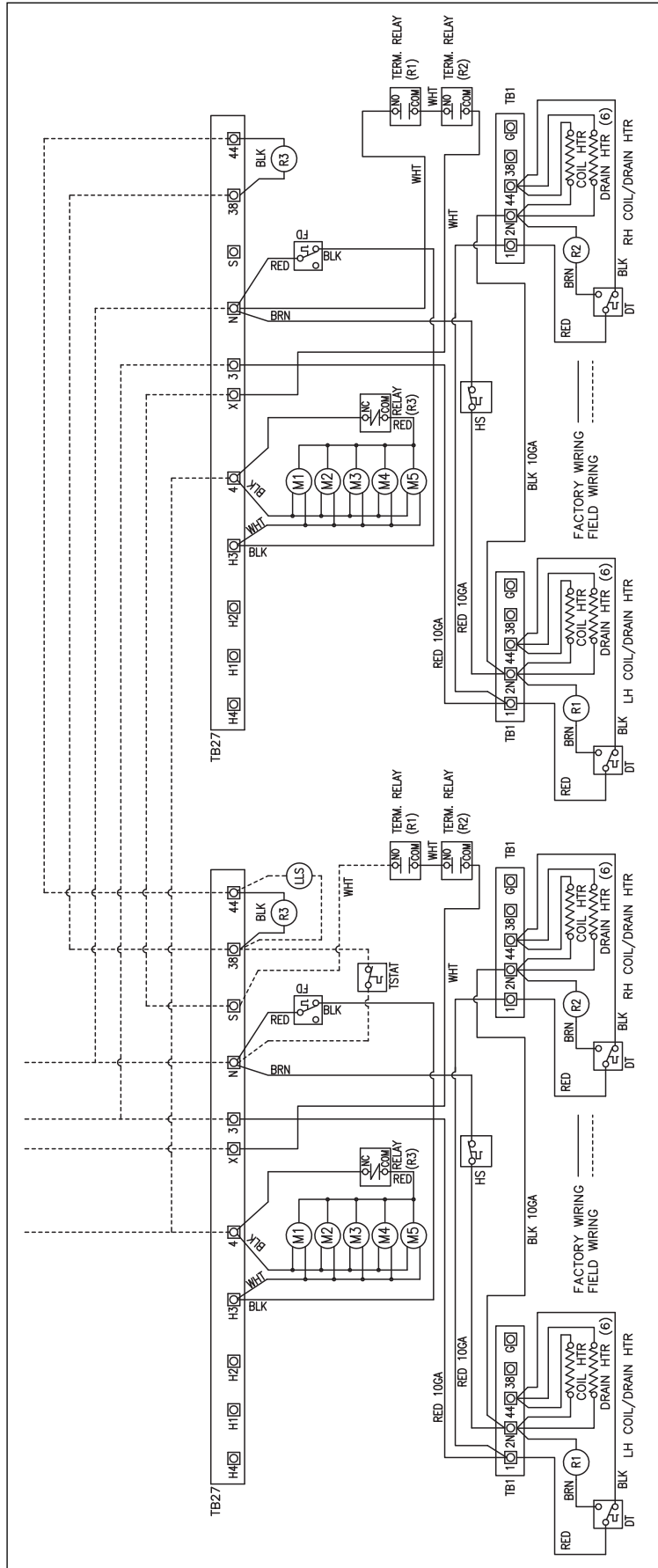
Wiring Diagram - Electric Defrost



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Figure 4

Wiring Diagram - Two Unit Coolers Connected to One Condensing Unit



Optional Components - EcoNet® Enabled Unit Coolers

The award-winning EcoNet Enabled Controller and EcoNet Command Center bring easy-to-use smart technology to commercial refrigeration applications.

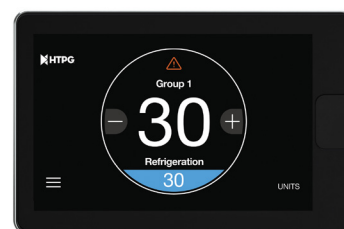
The optional EcoNet Controller gives customers a higher level of efficiency and more control of their walk-in units for greater energy savings. The EcoNet Controller is shipped from the factory with the controller board already installed and all sensors and relays wired. The controller replaces the TXV, liquid line solenoid valve, room thermostat, time clock, and defrost termination and fan delay. Parameters are pre-selected to match equipment.

The optional EcoNet Command Center allows for EcoNet Enabled Unit Coolers to be programmed, monitored, and troubleshot outside of the space being cooled. The EcoNet Command Center is shipped loose and includes everything in the box to quickly install the device on a wall outside of the walk-in. System set up is easy with the intuitive touchscreen installer settings.

If the Center Mount or Low Velocity Center Mount Unit Cooler has the factory-installed EcoNet Enabled Controller (see photo below), you will need to reference the EcoNet Enabled Unit Coolers Installation and Operations Manual for further assistance.



EcoNet Enabled Controller
(factory-installed)



EcoNet Command Center
(shipped loose)

Center Mount and Low Velocity Center Mount Unit Coolers

TO INQUIRE OR ORDER REPLACEMENT PARTS

Email: parts@htpg.com Telephone: 1-855-HTPARTS (1-855-487-2787) Fax (256) 259-7478

1. Provide the complete Model Number and Serial Number of the unit.
2. Provide a detailed description of the part with any model, diameter, HP, or other markings.
3. State the quantity you are ordering.
4. Advise special shipping methods, routes, procedures, or instructions with ship to address.
5. Provide complete and accurate data to insure prompt and accurate delivery.

Due to continuing product development, specifications are subject to change without notice.



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