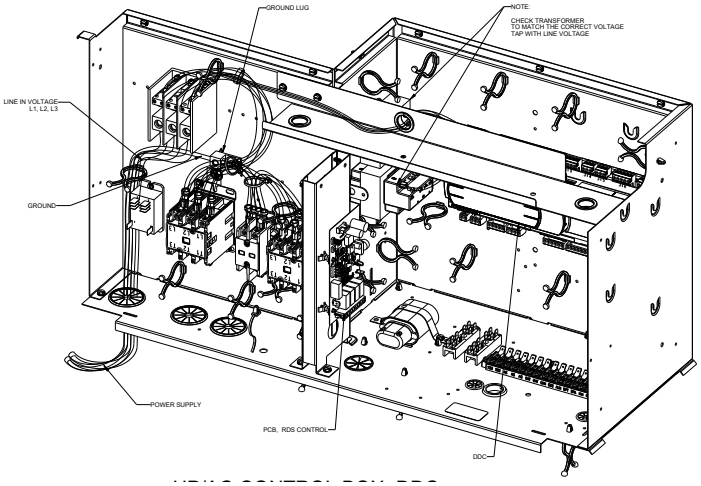


HP/AC DDC Control Box

NOTE: Components may vary depending on unit configuration.

WARNING

Failure of unit due to operation on improper line voltage or with excessive phase unbalance constitutes product abuse and is not covered by the warranty and may cause severe damage to the unit electrical components.

Areas Without Convenience Outlet

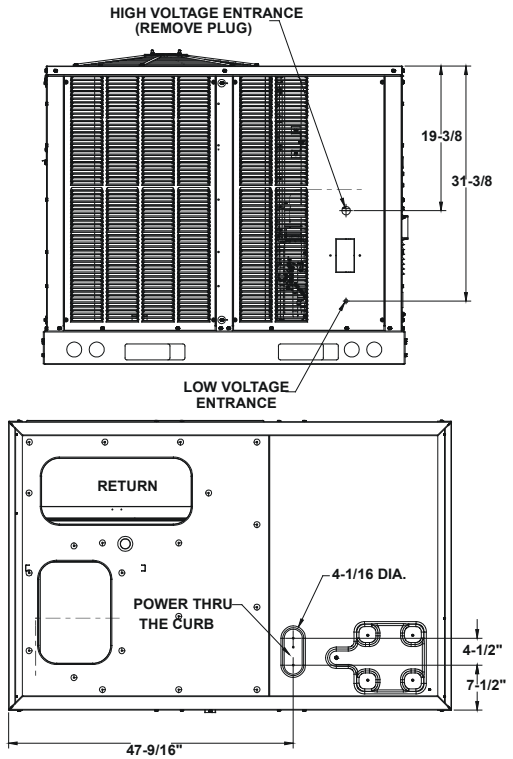
It is recommended that an independent 115V power source be brought to the vicinity of the roof top unit for portable lights and tools used by the service mechanic.

NOTE: Refer to local codes for requirements. These outlets can also be factory installed.

Units installed on Roof Tops

Main power and low voltage wiring may enter the unit through the condenser end of unit or through the roof curb. Install conduit connectors at the designated locations. External connectors must be weatherproof. All holes in the unit base must be sealed (including those around conduit nuts) to prevent water leakage into building. All required conduit and fittings are to be field supplied.

Supply voltage to roof top unit must not vary by more than 10% of the value indicated on the unit data plate. Phase voltage unbalance must not exceed 2%. Contact your local power company for correction of improper voltage or phase unbalance.



Electrical Entrance and Thru Curb (Bottom View of Unit)

Low Voltage Control Wiring

1. A 24V thermostat must be installed for unit operation unless the DDC controls option has been installed. (Refer to DDC QUICKSTART GUIDE)
2. Locate thermostat or remote sensor in the conditioned space where it will sense average temperature. Do not locate the device where it may be directly exposed to supply air, sunlight or other sources of heat. Follow installation instructions packaged with the installed device.
3. Use #18 AWG wire for 24V control wiring runs not exceeding 75 feet. Use #16 AWG wire for 24V control wiring runs not exceeding 125 feet. Use #14 AWG wire for 24V control wiring runs not exceeding 200 feet. Low voltage wiring may be National Electrical Code (NEC) Class 2 where permitted by local codes.
4. Route the low voltage control wires from sub-base terminals to the unit. Control wiring should enter through the condenser panel opening or through curb indicated in “Electrical Entrance” figure. Connect thermostat and any accessory wiring to low voltage terminal block TB1 in the main control box.

NOTE: Field-supplied conduit may need to be installed depending on unit/curb configuration. Use #18 AWG solid conductor wire whenever connecting thermostat wires to terminals on sub-base. DO NOT use larger than #18 AWG wire. A transition to #18 AWG wire may be required before entering thermostat sub-base.