



EARTHLINKED
TECHNOLOGIES

EarthLinked[®]
Pump Wire Kits PW1 and PW2
Installation Manual
for
R-410A or R-407C Systems

Disclaimer

Proper installation and servicing of the EarthLinked[®] Kit is essential to the Heating and Cooling Systems reliable performance. All EarthLinked[®] systems and kits must be installed and serviced by an authorized, trained technician who has successfully completed the training class and passed the final examination. Installation and service must be made in accordance with the instructions set forth in this manual and the *EarthLinked[®] Heating and Cooling System Installation, Operation and Maintenance Manual*. Failure to provide installation and service by an authorized, trained installer in a manner consistent with these manuals will void and nullify the limited warranty coverage for the system.

EarthLinked Technologies shall not be liable for any defect, unsatisfactory performance, damage or loss, whether direct or consequential, relative to the design, manufacture, construction, application or installation of the field specified components.

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Pre-Installation

Upon receipt of the pump wire kit, carefully check the model number against the bill of lading.

Next, check the pump wire kit model number against the compressor unit application requirement to assure proper match of the pump wire kit to the specific application.

Pump wire kits are required for the following two types of applications. Check the application requirements and reference Figure 1 below to ensure that you have the appropriate pump wire kit for your specific application.

A pump wire kit is required for the following:

- 1) SC, SD, SCW Compressor Units in radiant panel hydronic heating applications. The specific pump wire kit required is determined in Figure 1 from the compressor unit model and power supply.
- 2) SW Compressor Units utilized in an application requiring both radiant panel hydronic heating (with an HWM) and priority domestic potable water heating (with a DWM) from a single compressor unit. The specific pump wire kit required is determined in Figure 1 from the compressor unit model and power supply.

POWER SUPPLY PARAMETERS	COMPRESSOR UNIT MODEL			
	SC	SD	SCW	SW*
208/230-1-60	PW1	PW1	PW1	PW1
208/230-3-60	PW1	PW1	PW1	PW1
460-3-60	PW2	NA	PW2	PW1
575-3-60	PW2	NA	PW2	PW1

*SW Series available in R-407C only.

Figure 1. Pump Wire Kit Model Specification

PW1-1872 Installation



WARNING

BEFORE REMOVING ANY ACCESS PANELS AND INITIATING ANY PHASE OF THIS INSTALLATION MAKE SURE THAT POWER IS TURNED "OFF" TO ALL EARTHLINKED® AND FIELD SUPPLIED SYSTEM COMPONENTS. FAILURE TO DO SO COULD RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH.



WARNING

WEAR ADEQUATE PROTECTIVE CLOTHING AND PRACTICE ALL APPLICABLE SAFETY PRECAUTIONS WHILE INSTALLING THIS EQUIPMENT. FAILURE TO DO SO MAY RESULT IN EQUIPMENT AND/OR PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

1. After turning "OFF" power to all EarthLinked® and field supplied system components at the appropriate breakers, remove the front and top panels of the compressor unit cabinet.
2. Reference Figure 2 for PW1 assembly to electrical box. Remove available hole covers from the front of the electrical box.

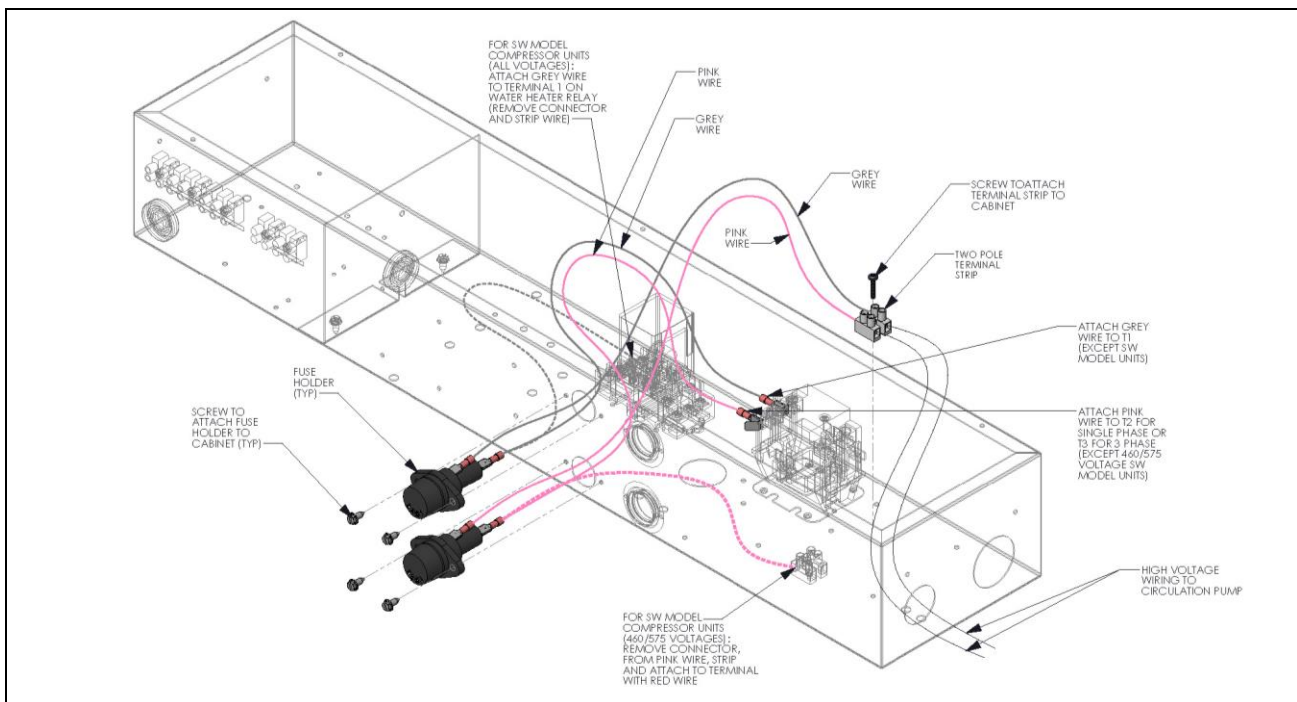


Figure 2. PW1 Assembly to Electrical Box

3. Install fuse holders into existing fuse holes with screws provided. Install fuses in fuse holders.
4. Install two-pole terminal strip inside electrical box and fasten into existing hole with screw provided.
5. Attach pink wire with piggyback connector onto “T2” (for single phase) or “T3” (for 230 volt, three phase) on the compressor contactor and the other connector to the center terminal of the bottom fuse holder.



IMPORTANT

USE PIGGY BACK TO REATTACH WIRES IF NO TABS ARE AVAILABLE FOR INSTALLING KIT.



CAUTION

**DO NOT REMOVE CLIP BY PULLING ON WIRE.
DO NOT ALLOW PIGGY BACK CLIP TO TOUCH OTHER TERMINALS.**

6. **For SC, SD and SCW compressor unit models**, attach the gray wire with the piggy back connector onto “T1” on the compressor contactor, and the other connector to the center terminal of the top fuse holder.
7. **For SW compressor unit models** for application to radiant panel hydronic heating and priority domestic potable water heating, install the piggy back onto terminal “5” of the heat-cool relay.
8. Attach the pink wire with connector to the collar connection of the bottom fuse holder, and tighten the terminal screw of the terminal block onto the stripped end of the pink wire.
9. Attach the gray wire with connector to the collar of the top fuse holder, and tighten the other terminal screw of the terminal block onto the stripped end of the gray wire.
10. Run high voltage wiring from the two-pole terminal strip in the electrical box out the grommated end hole of the electrical box and through the conduit connection of the compressor cabinet, to the circulating pump motor.

11. Check all wiring and connections to ensure proper routing and good contact to connections before restoring power to all the system components.

PW2-1872 Installation



WARNING

BEFORE REMOVING ANY ACCESS PANELS AND INITIATING ANY PHASE OF THIS INSTALLATION MAKE SURE THAT POWER IS TURNED “OFF” TO ALL EARTHLINKED® AND FIELD SUPPLIED SYSTEM COMPONENTS. FAILURE TO DO SO COULD RESULT IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH.



WARNING

WEAR ADEQUATE PROTECTIVE CLOTHING AND PRACTICE ALL APPLICABLE SAFETY PRECAUTIONS WHILE INSTALLING THIS EQUIPMENT. FAILURE TO DO SO MAY RESULT IN EQUIPMENT AND/OR PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



IMPORTANT

**THE PW2 PUMP WIRE KIT IS INSTALLED ON SC, SD AND SCW MODEL COMPRESSOR UNITS ONLY.
THE SW MODEL COMPRESSOR UNITS TAKE THE PW1 PUMP WIRE KIT.**

1. After turning “OFF” power to all EarthLinked® and field supplied system components at the appropriate breakers, remove the front and top panels of the compressor unit cabinet.
2. Reference Figure 3 for PW2 assembly to electrical box. Remove available hole covers from the front of the electrical box.

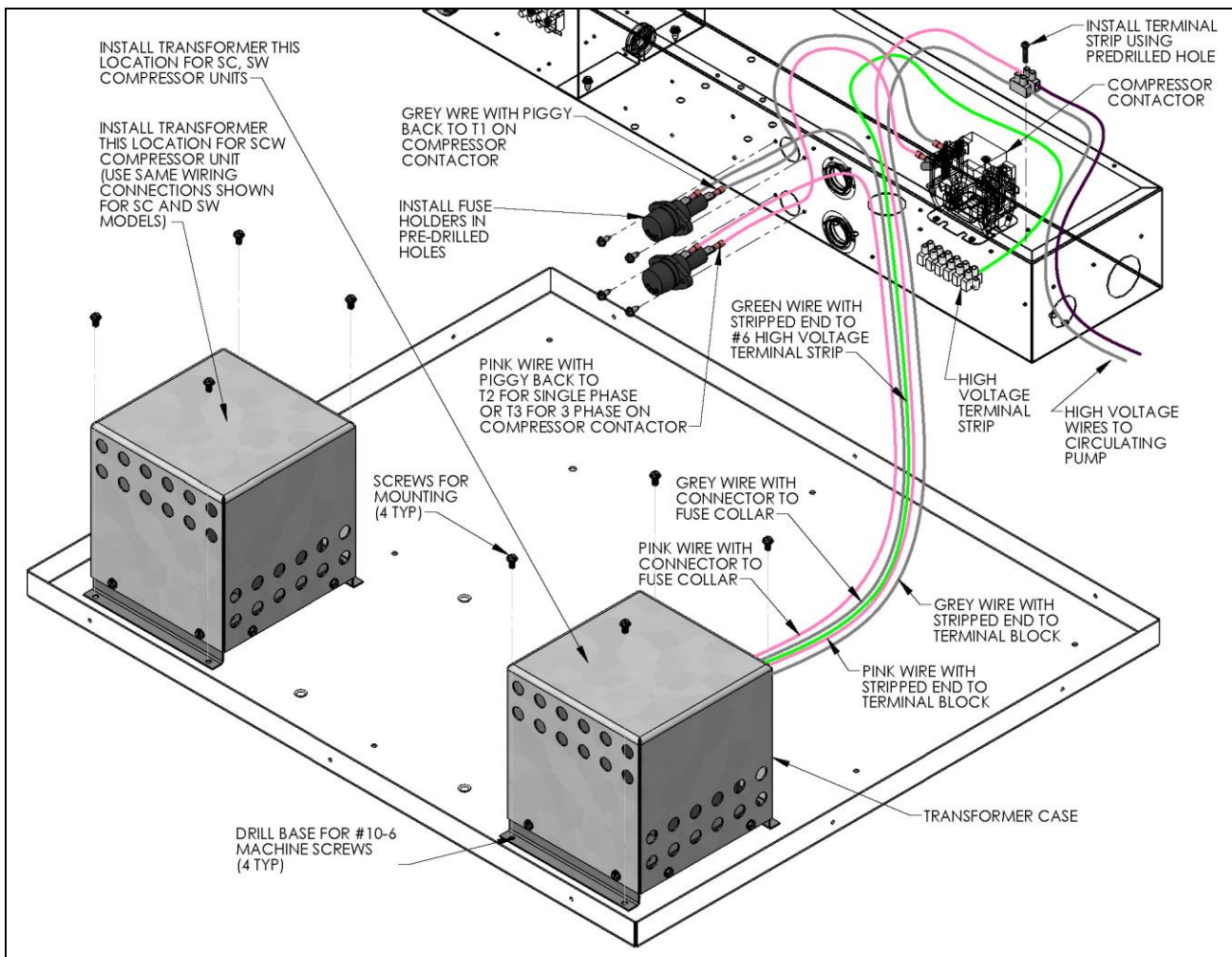


Figure 3. PW2 Assembly to Electrical Box and Base Pan

3. Install fuse holders into existing fuse holes with screws provided. Install fuses in fuse holders.
4. Install the two-pole terminal strip inside electrical box and fasten into the existing hole with screw provided.
5. Reference Figure 3 for the location of the transformer for the SC and SD Model compressor units, and a different location for the SCW model compressor unit.
6. Using the transformer base as a template, drill four holes in the base pan to accommodate #10-6 screws provided. Collect and dispose of all metal shavings from drilled holes.
7. Fasten the transformer firmly to the base pan with the screws provided.
8. Route the stripped pink and gray wires from the transformer through the grommets bottom center hole of the electrical box and attach to the terminal strip terminals by tightening the terminal screws onto the stripped wire ends.
9. Route the pink and gray wires with connectors and the green stripped-end wire from the transformer through the grommets bottom center hole of the electrical box and connect as follows:
 - a. Pink wire to the collar connection of the BOTTOM fuse holder.
 - b. Gray wire to the collar connection of the TOP fuse holder.
 - c. Green wire with stripped end to the #6 high voltage terminal strip.

10. Install the pink wire with the piggy back connector onto the compressor contactor terminal "T3" for 460/575 volt three phase, and the connector at the other end of the same wire to the center terminal of the BOTTOM fuse holder.
11. Install the gray wire with the piggy back connector onto the compressor contactor terminal "T1" and the connector at the other end of the same wire to the center terminal of the TOP fuse holder.
12. Run high voltage wiring from the two-pole terminal strip in the electrical box out the grommated end hole of the electrical box through the conduit connection of the compressor cabinet to the circulating pump motor.
13. Check all wiring and connections to ensure proper routing and good contact at connections, before restoring power to all the system components.