

ACCESSORY KIT INSTALLATION INSTRUCTIONS

2SA047* START KITS FOR D*EM PACKAGED COOLING UNITS ONLY

IMPORTANT - These instructions are intended for the use of qualified individuals specially trained and experienced in installation of this type of equipment and related system components.

Installation and service personnel are required by some states to be licensed.

Persons not qualified shall not install this equipment or interpret these instructions.

WARNING

Improper installation may damage equipment, can create a shock hazard, and will void the warranty.

NOTE: The words "Shall" or "Must" indicate a requirement which is essential to satisfactory and safe product performance.

The words "Should" or "May" indicate a recommendation or advice which is not essential and not required but which may be useful or helpful.

CONTENTS OF KIT

The compressor starting kit consists of a potential (starting) relay, screws, capacitor strap and start capacitor with wiring leads. Start kits for the various models are listed in Table 1.

TABLE 1: START KIT MODEL NUMBERS

START KIT MODEL NO.	OUTDOOR UNIT MODEL NUMBER		COMPRESSOR
2SA04700106	D1EM036A06	--	(COPELAND) ZR34K3-PFV
2SA04700206	D1EM048A06	DAPH-F048A	(BRISTOL) H21C423ABCA
2SA04700306	D1EM060A06	DAPH-F060A	(COPELAND) ZR54K3-PFV

IMPORTANT - Do not mis-match kits or damage will occur to the equipment.

APPLICATION

The compressor in the unit has a PSC (permanent split capacitor) motor which does not require a starting relay and capacitor, under ordinary operating conditions. The omission of these components eliminates a potential source of field problems making the system more trouble-free.

In order to take advantage of these benefits and trouble-free operation, the starting torque, or load, must be kept to a minimum. The suction and discharge pressures must be nearly equal before the compressor will start.

Because of the lower starting torque inherent in PSC motors, certain conditions such as low voltage and exceptionally high operating temperature, short thermostat cycles, etc. can affect the starting operation.

When such conditions exist, and cannot be corrected, it is recommended that the field installed compressor starting kit be used to convert the compressor motor to CSR (capacitor, capacitor run) operation.

NOTE: All Start Kits listed in these instructions are for use with units rated at 208-230V/ 1PH/60HZ.

PACKAGED COOLING ONLY AIR CONDITIONERS

WARNING

SHOCK HAZARD - Shut off electrical supply to the unit at the main disconnect to prevent electrical shock, which could result in personal injury or death.

Pre-drilled screw holes are provided in the control box. Using screws provided in the kit, install the start relay and start capacitor as shown in Figure 1.

NOTE: On units which have a solid-state start device; remove the start device along with the red and brown wires connecting it to the run capacitor.

1. Attach black lead wire **#133** from the start relay terminal **#5** to terminal **#T1** of the unit contactor.
2. Attach red lead wire **#132** from the start capacitor to terminal **#T2** of the unit contactor.
3. Locate the brown wire connecting the dual capacitor "HERM" to the **S** (start) terminal on the compressor.
4. Attach brown lead wire **#134** from the start relay terminal **#2** to the same terminal on the run capacitor that was located in Step 3. See Figure 2.
5. Attach yellow wire **#135** from the start relay terminal **#1** to the start capacitor.

NOTE: The wiring of the capacitor and relay must agree with Figure 2.

All components must be fastened securely and all wires must be routed to avoid contact with high or low voltage terminals or sharp edges. Use the plastic wire tie found with the kit to insure proper wire routing.

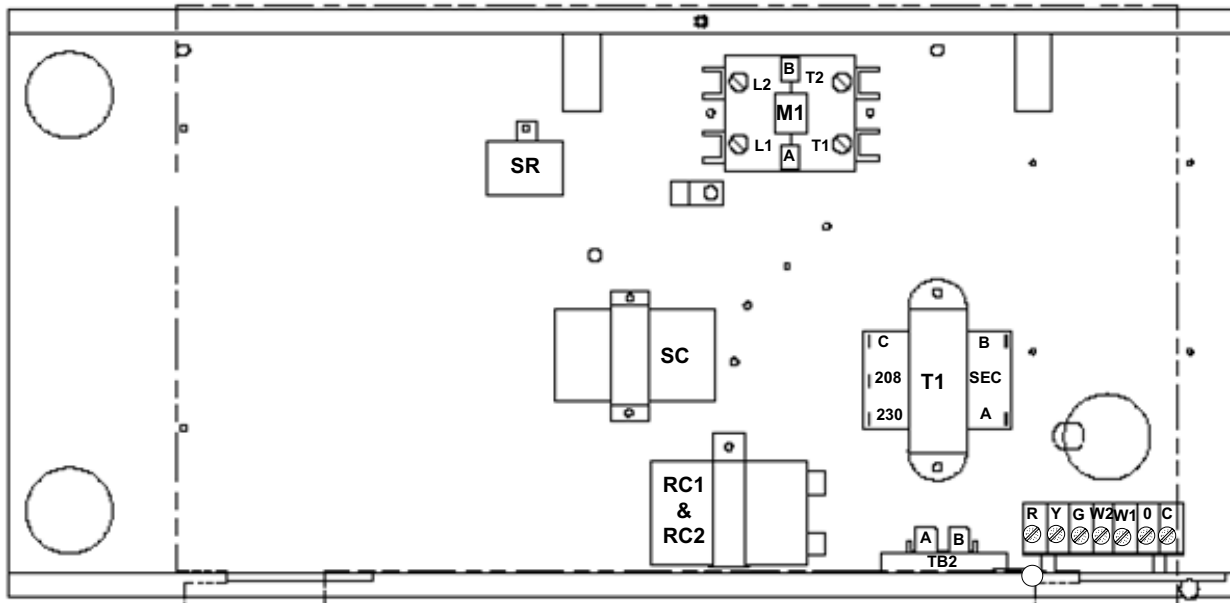


FIGURE 1 - LOCATION DIAGRAM

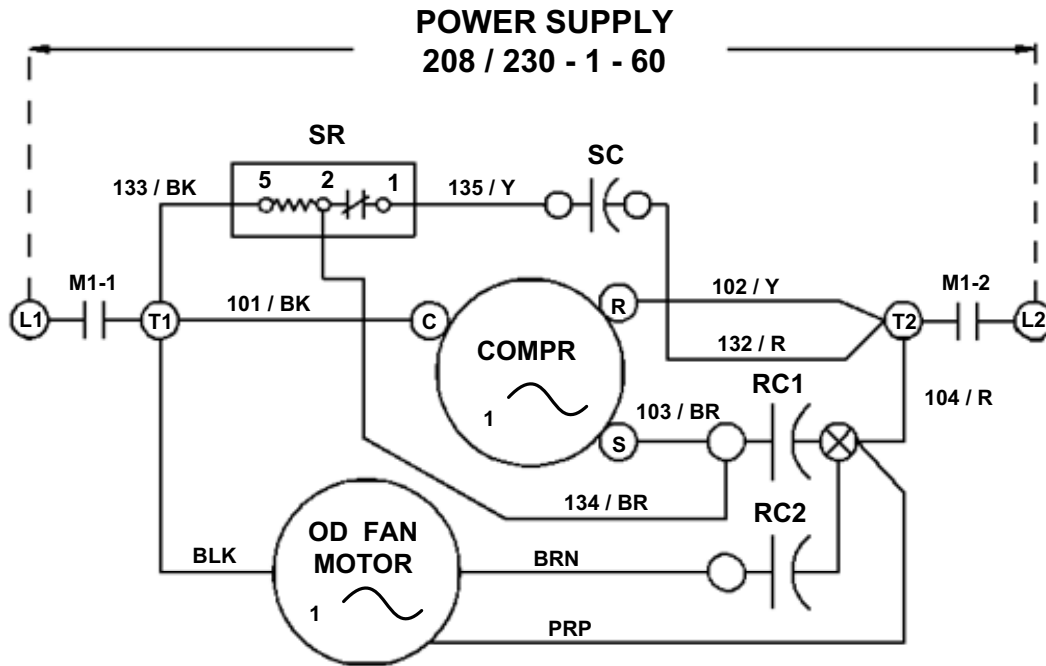


FIGURE 2 - WIRING DIAGRAM

TABLE 2: COMPONENT RATINGS

KIT NUMBER	COMPONENT RATINGS						
	START CAPACITOR RATINGS	START RELAY RATINGS					
		RATED HOT PICK-UP VOLTS		COLD PICK-UP		DROP-OUT	
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
2SA04700106	88-108 MFD. 330 VAC	170	180	162	175	40	90
2SA04700206	88-108 MFD. 250 VAC	190	200	189	190	60	121
2SA04700306	270-324 MFD. 330 VAC	240	260	223	252	60	121

NOTES