


Installation Instructions

NOTE: Read the entire instruction manual before starting the installation.

SAFETY CONSIDERATIONS

Installing and servicing air conditioning equipment can be hazardous due to system pressures and electrical components. Only trained personnel should install or service air conditioning equipment.

Untrained personnel can perform basic maintenance functions such as cleaning coils, or cleaning and replacing filters. All other operations should be performed by trained service personnel. When working on air conditioning equipment, observe precautions in the literature, on tags, and on labels attached to the unit.

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand these signal words; DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies hazards which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

Follow all safety codes. Wear safety glasses and work gloves.

WARNING

ELECTRICAL OPERATION HAZARD

Failure to follow this warning could result in personal injury or death.

Before beginning any installation or modification, be sure the main electrical disconnect switch is in the OFF position. TAG THE DISCONNECT SWITCH WITH A SUITABLE WARNING LABEL.

Use only the kit components described in this installation procedure.

CAUTION

ELECTRICAL OPERATION HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

Care must be exercised when drilling kit mounting holes to avoid damage to wires and other existing electrical and refrigerant components.

INTRODUCTION

These instructions cover the installation of Start Capacitor/Relay Kits on split-system air conditioners and heat pumps.

Kit contents:

- Relay - 1
- Capacitor - 1
- Capacitor strap - 1
- Screws - 3
- Black wire - 1
- Blue wire - 1
- Brown wire - 1
- Yellow wire - 1
- Installation Instructions - 1

INSTALLATION

NOTE: Remove and discard start thermistor if used.

STEP 1 —RUN CAPACITOR MOUNTED IN VERTICAL POSITION (SEE FIG. 1, 2, 4 and 5)

1. Remove 2 screws located above and right of run capacitor (Fig. 2 units only).
2. Attach start capacitor strap to start capacitor.
3. Attach start capacitor and strap assembly to control box as shown in appropriate figure. Use screw provided.
4. Attach start relay. Locate relay tab in dimple of control box. Use screw provided.
5. Connect black wire to terminal 5 on start relay and terminal 21 on contactor.
6. Connect blue wire to terminal 2 on start relay and H on unit run capacitor.
7. Connect brown wire to terminal 1 on start relay and start capacitor.
8. Connect yellow wire to start capacitor and C on run capacitor.
9. Installation is complete. Proceed to Step 3—Unit Start-Up.

Table 1—Kit Components

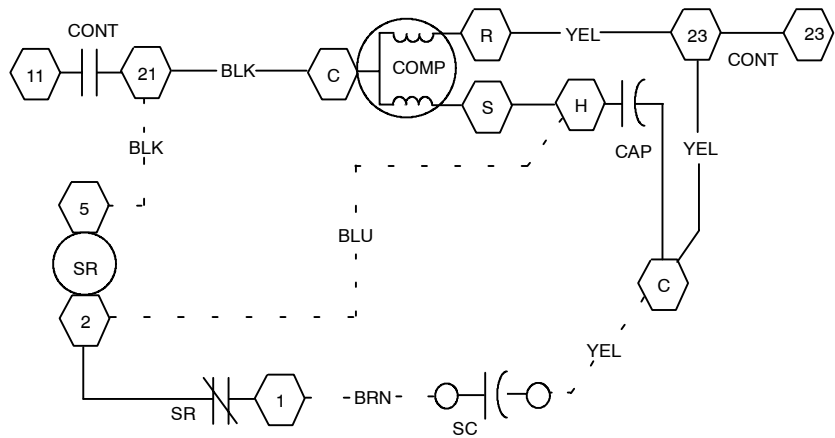
KIT NUMBER	START RELAY	START CAPACITOR	MICROFARAD/VOLTAGE
KSAHS0901AAA	HN61HB543	HC95DE020	145 – 174/330
KSAHS1001AAA	HN61HB541	HC95DE020	145 – 174/330
KSAHS1101AAA	HN61HB540	HC95DE020	145 – 174/330
KSAHS1201AAA	HN61HB542	HC95DE012	135 – 155/330
KSAHS1301AAA	HN61HB542	HC95DE090	189 – 227/330
KSAHS1401AAA	HN61HB542	HC95DE088	88 – 108/330
KSAHS1501AAA	HN61HB540	HC95DE088	88 – 108/330
KSAHS1601AAA	HN61HB540	HC95DE297	270 – 324/330
KSAHS1701AAA	HN61HB540	HC95DE045	176 – 216/330
KSAHS1801AAA	HN61HB544	HC95DE297	270 – 324/330
KSAHS1901AAA	HN61HB545	HC95DE297	270 – 324/330
KSAHS2001AAA	HN61HB545	HC95DE020	145 – 174/330
KSAHS2101AAA	HN61HB546	HC95DE020	145 – 174/330
KSAHS2201AAA	HN61HB541	HC95DE090	145 – 174/330

STEP 2 —RUN CAPACITOR MOUNTED IN HORIZONTAL POSITION (SEE FIG. 1, 3, 4 and 5)

1. Remove 2 screws above run capacitor.
2. Attach start relay to top center of control box. Locate relay tab in dimple of control box. Use screw provided.
3. Attach start capacitor strap to start capacitor with flap pointing down and capacitor terminals pointing left.
4. Attach start capacitor and strap assembly to control box above run capacitor. Use provided screw.
5. Connect black wire to terminal 5 on start relay and terminal 21 on contactor.
6. Connect blue wire to terminal 2 on start relay and H on unit run capacitor.
7. Connect yellow wire to start capacitor and C on unit run capacitor.
8. Installation is complete. Proceed to Step 3—Unit Start-Up.

STEP 3 —UNIT START-UP

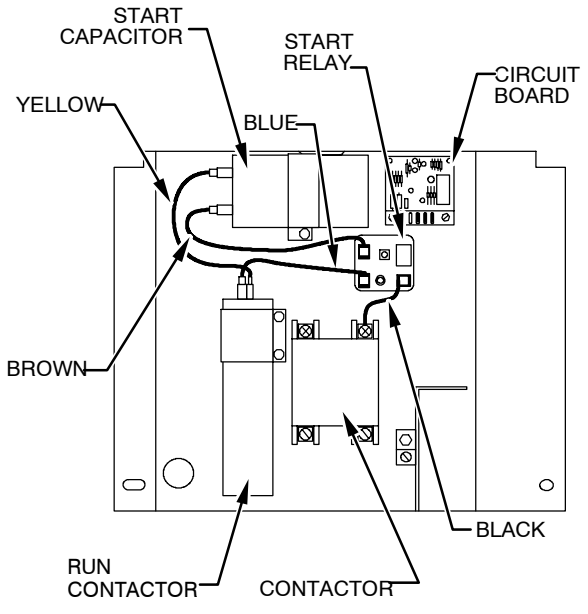
1. Check all electrical connections for proper position.
2. Check system pressures for equalization.
3. Restore power to unit and start compressor.
Should the compressor fail to start, check unit wiring. Power supply must be within operating voltage range indicated on unit rating plate.



- FACTORY WIRING
- - - - FIELD INSTALLED WIRING
- COMP COMPRESSOR
- SR START RELAY
- SC START CAPACITOR
- CAP RUN CAPACITOR
- CONT CONTACTOR

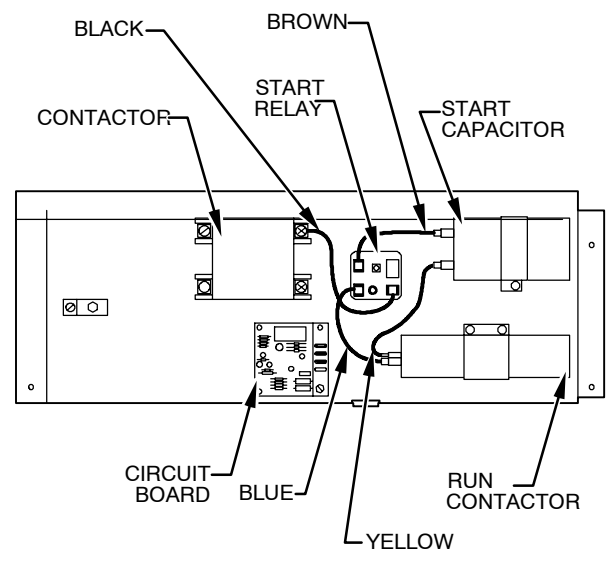
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Fig. 1 - Electrical Connections



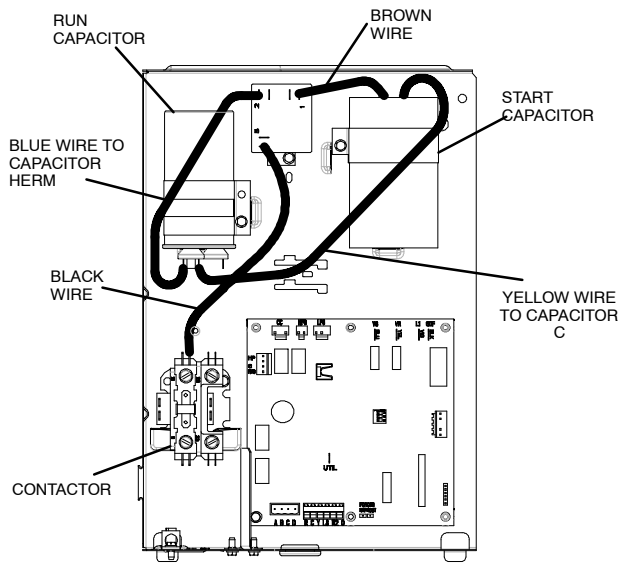
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Fig. 2 - Run Capacitor Mounted in Vertical Position



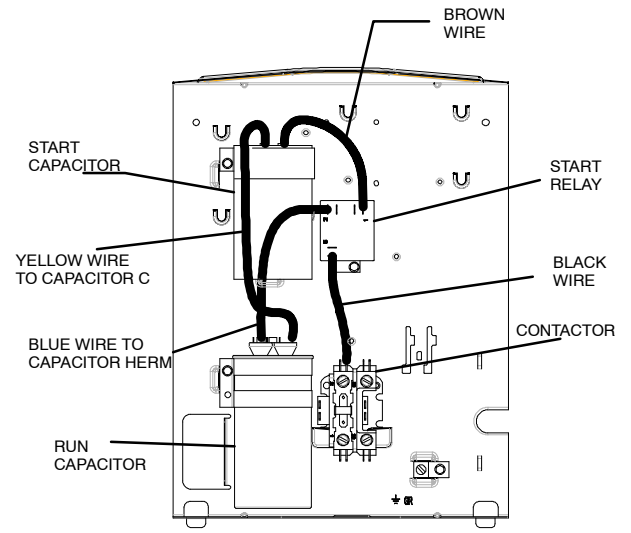
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Fig. 3 - Run Capacitor Mounted in Horizontal Position



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Fig. 4 - Start Kit Components, Performance / Preferred



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Fig. 5 - Start Kit Components, Base / Legacy / Comfort