



Installation Instructions

Midrange and Integral Air-Cooled Self-Contained Accessory: Evaporator Oversized & 2-Speed Motor Kit

Models SCWH/SCIJ/SCRJ
10, 12 & 15Ton

⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.



Introduction

This manual is for use with Commercial Self-Contained models SCWH, SCIJ and SCRJ. It provides specific installation instructions for the evaporator oversized and 2-speed motor kits.

Literature Change History

PKG-SVN17A-EN (March 2012) - New release.

Note: Similar to PKG-SVN05A-EN (January 2005). See PKG-SVN05A-EN for oversized motor kit information.

Cross reference to related publication/ information:

- Midrange Self-Contained catalog; PKG-PRC012-EN.
- Integral Air-Cooled Units catalog; PKG-PRC019-EN.
- Midrange Self-Contained Installation, Operation & Maintenance Manual - PKG-SVX14C-EN.
- Integral Air-Cooled Self Contained Unit Installation, Operation & Maintenance Manual; SXIJ-SVX01A-EN.

Note: This document is customer property and must be retained for use by maintenance personnel.

It is important to perform periodic maintenance to help ensure trouble free operation. Should equipment failure occur, contact a qualified Trane service organization for an experienced HVAC technician to properly diagnose and repair this equipment.

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Kit Components

Table 1. Kit components - SCIJ units

KIT MODEL NUMBER	UNIT TO BE ASSEMBLED	COMPONENTS	
		DESCRIPTION	QTY
BAYOVS2 SA1003A0	SCIJ1003*	Motor 3.0HP - 4/6 poles- 208-230V	1
		Adjustable Sheave 4.72" OD X 1.125" bore	1
		Adjustable Sheave 5" OD X 1.125" bore	1
		Blower Pulley 6" OD X 1" bore	1
		Blower Pulley 8" OD X 1" bore	1
		V belt BX-29	1
		V belt BX-32	1
		V belt BX-35	1
		V belt BX-38	1
		V belt BX-39	1
		V belt BX-43	1
		Board - Electrical with harness	1
		Rivet - pop	4
		BAYOVS2 SA1004A0	SCIJ1004*
Adjustable Sheave 4.72" OD X 1.125" bore	1		
Adjustable Sheave 5" OD X 1.125" bore	1		
Blower Pulley 6" OD X 1" bore	1		
Blower Pulley 8" OD X 1" bore	1		
V belt BX-29	1		
V belt BX-32	1		
V belt BX-35	1		
V belt BX-38	1		
V belt BX-39	1		
V belt BX-43	1		
Board - Electrical with harness	1		
Rivet - pop	4		
BAYOVS2 SA1005A0	SCIJ1005*		
		Adjustable Sheave 4.72" OD X 1.125" bore	1
		Adjustable Sheave 5" OD X 1.125" bore	1
		Blower Pulley 6" OD X 1" bore	1
		Blower Pulley 8" OD X 1" bore	1
		V belt BX-29	1
		V belt BX-32	1
		V belt BX-35	1
		V belt BX-38	1
		V belt BX-39	1
Board - Electrical with harness	1		
Rivet - pop	4		

Table 1. Kit components - SCIJ units (continued)

KIT MODEL NUMBER	UNIT TO BE ASSEMBLED	COMPONENTS	
		DESCRIPTION	QTY
BAYOVS2 SA1503A0	SCIJ1503*	Motor 5.0HP - 4/6 poles - 208-230V	1
		Adjustable Sheave 4.72" OD X 1.125" bore	1
		Blower Pulley 6" OD X 1.18" bore	1
		Blower Pulley 7" OD X 1.18" bore	1
		V belt BX-29	1
		V belt BX-30	1
		V belt BX-35	1
		V belt BX-37	1
		Board - Electrical with harness	1
		Rivet - pop	4
BAYOVS2 SA1504A0	SCIJ1504*	Motor 5.0HP - 4/6 poles - 460V	1
		Adjustable Sheave 4.72" OD X 1.125" bore	1
		Blower Pulley 6" OD X 1.18" bore	1
		Blower Pulley 7" OD X 1.18" bore	1
		V belt BX-29	1
		V belt BX-30	1
		V belt BX-35	1
		V belt BX-37	1
		Board - Electrical with harness	1
		Rivet - pop	4
BAYOVS2 SA1505A0	SCIJ1505*	Motor 5.0HP - 4/6 poles - 575V	1
		Adjustable Sheave 4.72" OD X 1.125" bore	1
		Blower Pulley 6" OD X 1.18" bore	1
		Blower Pulley 7" OD X 1.18" bore	1
		V belt BX-29	1
		V belt BX-30	1
		V belt BX-35	1
		V belt BX-37	1
		Board - Electrical with harness	1
		Rivet - pop	4

Table 2. Kit components - SCWH/SCRJ

KIT MODEL NUMBER	UNIT TO BE ASSEMBLED	COMPONENTS	
		DESCRIPTION	QTY
BAYOVS2 SB1003A0	SCWH/SCRJ100 (120)(150)3*	Motor 5.0HP - 4/6 poles - 208-230V	1
		Adjustable Sheave 5" OD X 1.125" bore	1
		Blower Pulley 6" OD X 1" bore	1
		Blower Pulley 10" OD X 1" bore	1
		V belt BX-31	1
		V belt BX-33	1
		V belt BX-42	1
		V belt BX-44	1
		Board - Electrical with harness	1
		Rivet - pop	4
BAYOVS2 SB1004A0	SCWH/SCRJ100 (120)(150)4*	Motor 5.0HP - 4/6 poles - 460V	1
		Adjustable Sheave 5" OD X 1.125" bore	1
		Blower Pulley 6" OD X 1" bore	1
		Blower Pulley 10" OD X 1" bore	1
		V belt BX-31	1
		V belt BX-33	1
		V belt BX-42	1
		V belt BX-44	1
		Board - Electrical with harness	1
		Rivet - pop	4
BAYOVS2 SB1005A0	SCWH/SCRJ100 (120)(150)5*	Motor 5.0HP - 4/6 poles - 575V	1
		Adjustable Sheave 5" OD X 1.125" bore	1
		Blower Pulley 6" OD X 1" bore	1
		Blower Pulley 10" OD X 1" bore	1
		V belt BX-31	1
		V belt BX-33	1
		V belt BX-42	1
		V belt BX-44	1
		Board - Electrical with harness	1
		Rivet - pop	4

Installation Procedure

⚠ WARNING

Hazardous Voltage!

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Failure to disconnect power before servicing could result in death or serious injury.

1. Uncrate motor, sheave, belts, pulley, electrical board.
2. To access motor and fan section, remove right side panel #1 and front panel #2. See [Figure 1](#) and [Figure 2](#).
3. To access electrical board, remove front side panel #3 right side panel #4. See [Figure 1](#) and [Figure 2](#).
4. Remove the belt by decreasing the belt tension, according to detail A in [Figure 3](#).
5. Disconnect motor harness inside motor terminal box.
6. Loosen the four bolts that attach the motor base to the mounting base and remove the standard motor from the unit. This motor can be discarded or reused in another application. Save the mounting base, bolts, nuts, and washers to install the two speed motor.
7. Assemble pulley (motor and fan) according to the required transmission option for the application. See [Table 3, p. 5](#). Apply a chemical lock on all the screws.
8. Install the two speed motor on the mounting base using the bolts, nuts and washers removed in [Step 6](#).
9. Adjust the motor sheave to the desired airflow rate. Refer to the fan performance tables in the unit catalog.
10. Choose and install the correct v-belt according to the fan discharge configuration. Adjust the belt tension properly according to detail B in [Figure 3](#).

Note: If 2-speed motor feature is required, implement [Step 11 through Step 14](#). If only the oversized motor feature is required, skip [Step 11 and Step 12](#) and perform [Step 13 and Step 14](#).

11. For SCIJ units and only if 2-speed motor feature is required, drill holes on the aluminum frame and using rivets (field supplied) install the extra command box supplied (2-speed motor control) just below the main command box, positioned as shown in [Figure 4, p. 5](#). For SCRJ and SCWH units and only if 2-speed motor feature is required, install the 2 extra contactors supplied (2-speed motor control) inside the command box, positioned as shown in [Figure 5, p. 5](#). Reconnect the motor harness removed in [Step 5](#).
12. Reconnect harness, following same routes as the original harness.
13. Reconnect the motor harness removed in [Step 5](#).
14. Verify all bolts, screws, harness attachment, etc. are installed properly before starting the unit.

Important: When electric resistance heat is installed, the motor will only operate in high rotation (full airflow) when in heating mode. The low speed operation in heating mode is expressly prohibited.

Figure 1. SCWH/SCRJ panel locations

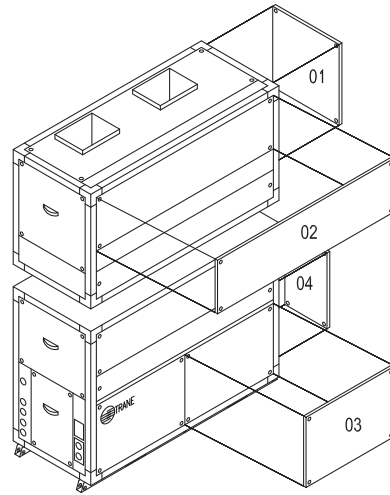


Figure 2. SCIJ panel locations

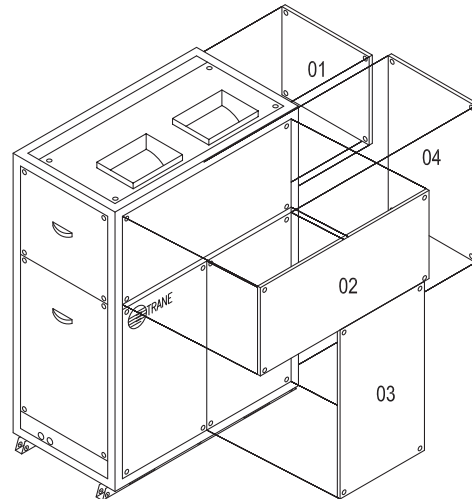


Figure 3. Belt tension adjustment

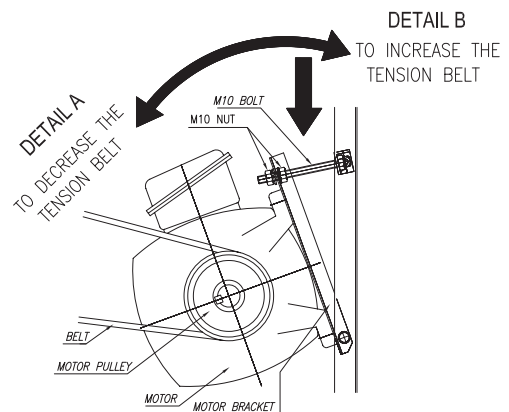


Figure 4. SCIJ command box location

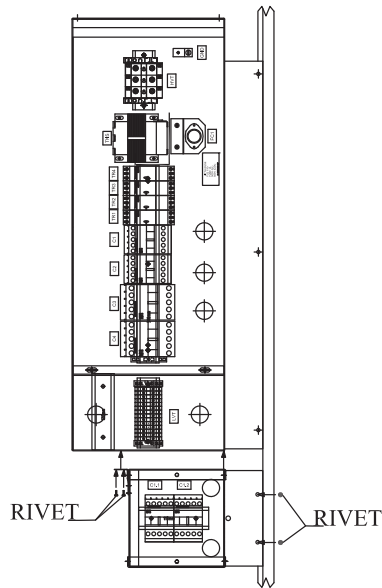


Figure 5. SCRJ/SCWH - contactor installation location

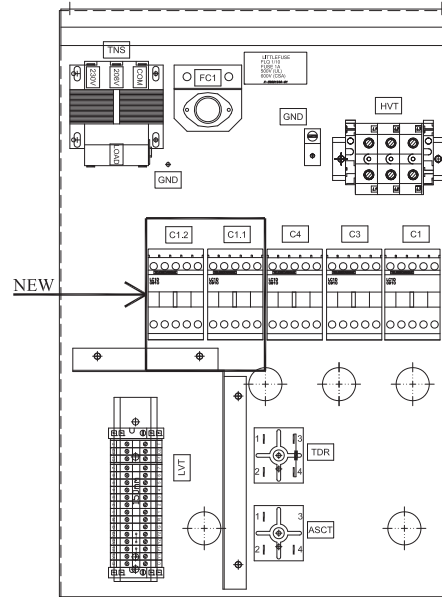


Table 3. Guidance table

Kit Model Number ^(a) 1	Unit to be Assembled	Transmission Option ^(b)	Discharge Evaporator	Motor	Adjustable Sheave	Blower Pulley	V Belt
BAYOVS2SA100*A0	SCIJ100	STD	Vertical	3.0 hp	PL. 5	"-	BX-43
			Horizontal				BX-38
		HSP	Vertical		PL. 4.72	"PL. 8	"BX-39
			Horizontal				BX-32
		OVS	Vertical		PL. 6	"BX-35	"BX-35
			Horizontal				BX-29
BAYOVS2SA150*A0	SCIJ150	STD	Vertical	5.0 hp	PL. 4.72	"-	-
			Horizontal				-
		HSP	Vertical		PL. 7	"BX-37	"BX-37
			Horizontal				BX-30
		OVS	Vertical		PL. 6	"BX-35	"BX-35
			Horizontal				BX-29
BAYOVS2SB100*A0	SCRJ / SCWH 100/120/150	STD	Vertical	5.0 hp	PL. 5	"-	-
			Horizontal				-
		HSP	Vertical		PL. 6	"BX-31	"BX-31
			Horizontal				BX-33
		LSP	Vertical		PL. 10	"BX-42	"BX-42
			Horizontal				BX-44

(a) * Digit identifies the unit voltage: 3 - 208-230V/60Hz/3Ph, 4 - 460V/60Hz/3Ph, 5 - 575V/60Hz/3Ph

(b) STD - Standard drive, HSP - High static pressure drive, OVS - Oversized motor, LSP - Low static pressure drive

Important: Pulleys and belts are not identified in the table. Keep original items shipped with equipment.

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