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507170-03
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Supersedes 507170-02

Integrated Control Replacement Kit

INSTALLATION INSTRUCTIONS FOR INTEGRATED CONTROL REPLACEMENT KIT (19J95) USED WITH SLP98 & SLP99 UNITS

WARNING

This kit is to be installed by a licensed HVAC professional technician (or equivalent) or other agency in accordance with the manufacturer's instructions, and in accordance with all codes and requirements of the authority having jurisdiction.

Shipping & Packing List

Package 1 of 1 contains:

- 1 - Ignition control - 102813-05

Application

This control is designed for use with a 120V ignitor (100536-02) only. Do not install this integrated control in a furnace equipped with a 95V ignitor. Integrated control 102813-05 can be used in communicating or non-communicating applications. Use replacement integrated control kit (19J95) with SLP98 and SLP99 units.

Installation

WARNING

Protect the control from direct contact with water. If the control has been in direct contact with water, replace the control.

WHEN SERVICING CONTROLS, label all wires prior to disconnecting. Wiring errors can cause improper and dangerous operation.

VERIFY proper operation after servicing.

WARNING

Disconnect power before servicing the unit.

Shut off main gas supplies to appliance until installation is complete.

ELECTROSTATIC DISCHARGE (ESD) Precautions and Procedures

CAUTION



Electrostatic discharge can affect electronic components. Take precautions to neutralize electrostatic charge by touching your hand and tools to metal prior to handling the control.

- 1 - Turn off electrical and gas supplies to the furnace.
- 2 - Remove the access panels and the control box cover. Label the wires before disconnecting.
- 3 - Disconnect the wires and harness connectors from the existing control.
- 4 - Remove control by unlatching the two mounting legs on the right side of the control and then rotate the control toward you.
- 5 - Replace with the provided control and reconnect the marked wires and harness connectors.
- 6 - Restore electrical and gas supplies to the furnace.

Non-Communicating System

Configure the DIP switch settings and on-board links of the replacement control **exactly** the same as the original control.

NOTE—When replacing the control in a non-communicating system, it must be configured using the flow chart on page 4.

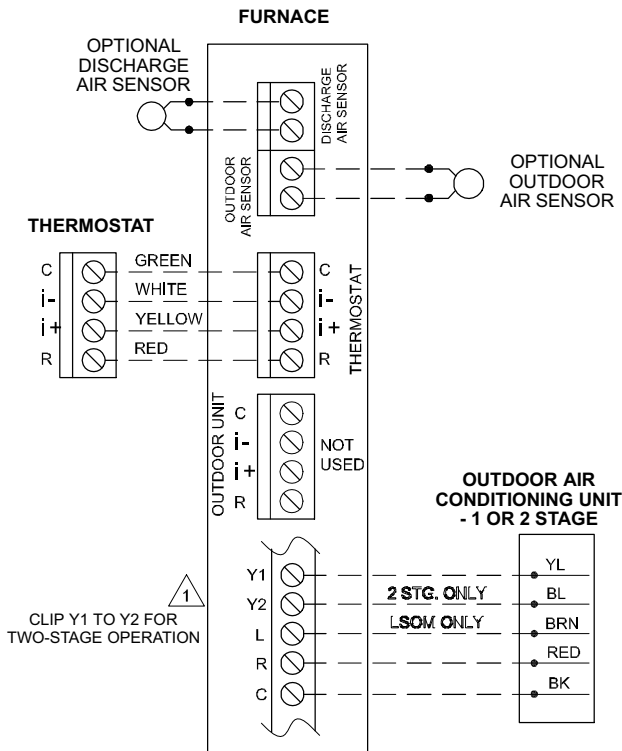
WARNING

Ensure proper earth grounding of appliances.

Ensure proper connection of the line neutral and line hot wires.



Communicating Thermostat with Communicating Furnace and Non-Communicating Outdoor Unit



Communicating Thermostat with Communicating Furnace and Communicating Outdoor Unit

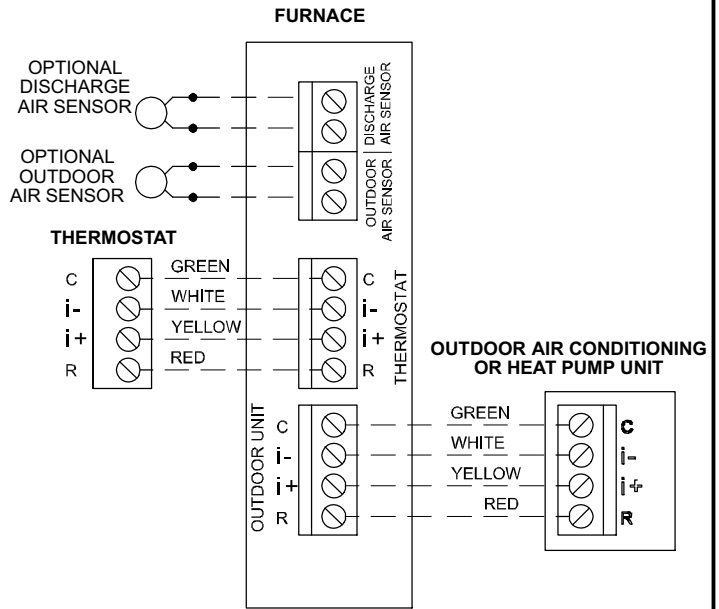


FIGURE 1

Optional Accessories for use with any Communicating System

NOTE: COMMUNICATING THERMOSTAT SENSES HUMIDITY & CONTROLS 24V "H" OUTPUT (& 120V "H" OUTPUT) TO CYCLE HUMIDIFIER BASED ON DEMAND. NO OTHER CONTROL OR HUMIDISTAT REQUIRED.

OPTIONAL OUTDOOR AIR SENSOR FOR USE WITH HUMIDIFIER (IF NOT ALREADY IN THE SYSTEM FOR OTHER FUNCTIONS. BUILT INTO ALL COMMUNICATING OUTDOOR UNITS).

NOTE: 24V UV LIGHT APPLICATIONS

Furnace transformer will not have adequate voltage to power 24v UV light applications. An additional transformer is required for UV light applications.

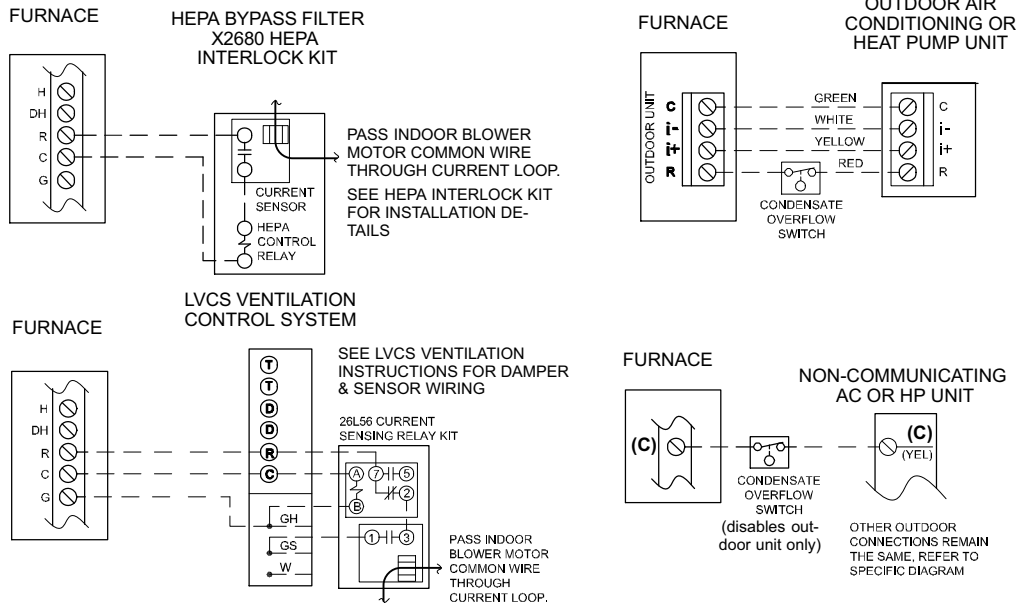
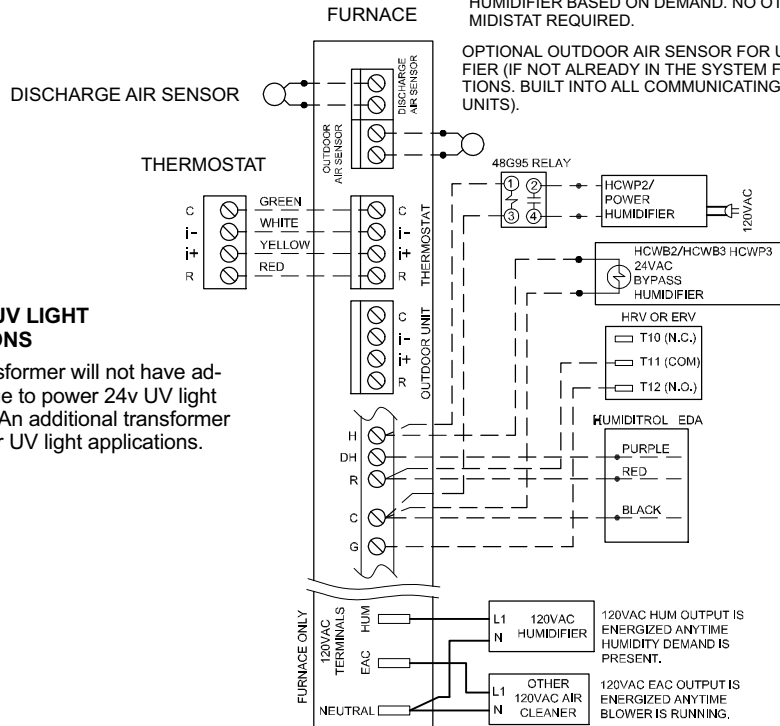


FIGURE 2

Configuring Unit Size Codes

Power-up - Unit Size Code number displayed represents furnace size and capacity. If three horizontal bars are display followed by continuous E203, furnace control does not recognize **unit size code**.

Control in **IDLE** mode
(Decimal point blinking. No heating, cooling or indoor fan operation)

Yes

No

To enter **Field Test Mode**: Push and hold button next to 7-segment LED display until **solid dash** symbol appears, release button.



If alarm is present, control will display error code. If alarm is not present, **solid dash** starts blinking on 7-segment LED display.

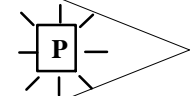


Push and hold button until the **solid P** symbol is displayed on the 7-segment LED, then release button. This mode allows the user to select a unit size code number that matches the furnace model size and capacity.



IMPORTANT: Field replacement controls may need to be manually configured to validate furnace unit size code.

Solid **P** starts blinking on 7-Segment LED



Push and hold button to allow control to display unit size code number for each different furnace model for five seconds.

Turn room thermostat to **OFF**

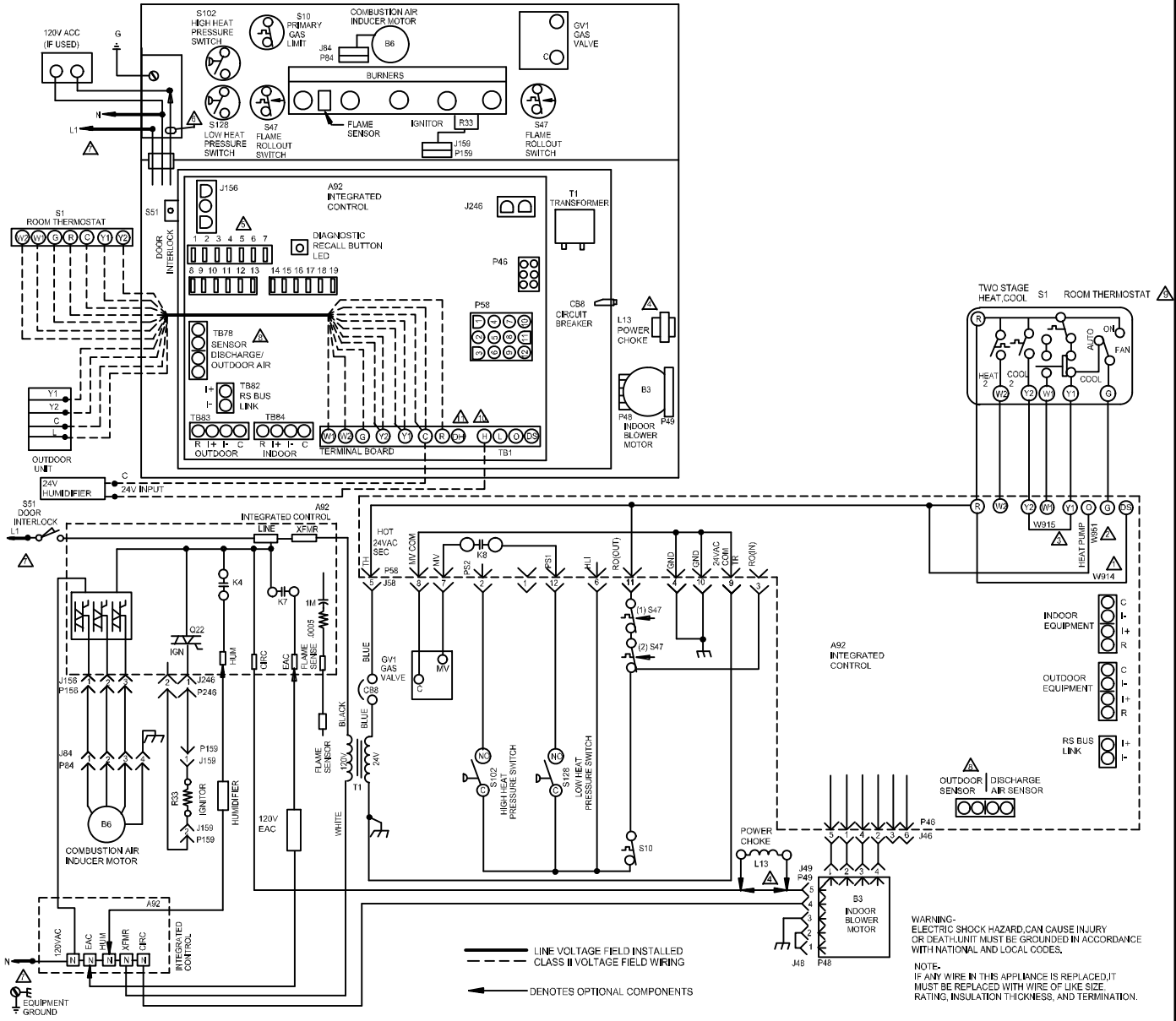
UNIT SIZE CODE	SLP98/99UHV MODEL	UNIT SIZE CODE	SLP98/99DFV MODEL
A	070-36B	H	070-36B
b	090-36C	J	090-36C
C	090-48C	L	090-48C
d	090-60C	n	090-60C
E	110-60C	o	110-60C
F	135-60D		

When the correct unit size code is displayed, release button. Selected code will flash for 10-second period. During that period, hold push button until code stops blinking (disappear for 2 seconds). Control will store code in memory and will automatically exit **Field Test Mode** and reset. (If second period expires or push button is held less than five seconds, control will automatically exit **Field Test Mode** and go into **IDLE** mode without storing unit size code. If this happens, configuring function must be repeated).

Verify that the selected **unit size code** is correct and stored in non-volatile memory by cycling the 24 volt power to the control. (At 24 volt power-up of the control, the 7-segment LED will display a **unit size code**. If three horizontal bars display, board does not recognize **unit size code**. Programming function must be repeated.)

FINISHED

TYPICAL SLP98/99UHV WIRING DIAGRAM



JACKPLUG CHART	
J.P46	JACK/PLUG-CONTROL, VARIABLE SPEED
J.P48	JACK/PLUG-MOTOR, VARIABLE SPEED
J.P49	JACK/PLUG-MOTOR, VARIABLE SPEED
J.P58	JACK/PLUG-BURNER CONTROL
J.P84	JACK/PLUG-COMB. AIR INDUCER
J.P156	JACK/PLUG-INDUCER/IGNITOR
J.P159	JACK/PLUG-IGNITOR
J.P246	JACK/PLUG-BOARD IGNITION

THERMOSTAT HEAT ANTICIPATION SETTING
 .65 AMP HONEYWELL VALVE

⚠ CUT W914 JUMPER LABELED "DEHUM OR HARMONY" FROM DS TO R, AT A92 CONTROL BOARD, WHEN USED WITH SIGNATURESTAT.

⚠ CUT W951 JUMPER FROM O TO R, LABELED "HEAT PUMP", AT A92 CONTROL BOARD, WHEN USED FOR DUAL FUEL APPLICATIONS.

⚠ JUMPER W915 FROM Y1 TO Y2 IS FACTORY INSTALLED AT A92 CONTROL BOARD. LEAVE IN FOR ONE STAGE COOL THERMOSTAT. CUT JUMPER Y1 TO Y2 FOR TWO STAGE COOL THERMOSTAT

UNIT	BLOWER SPEED CHART		
	HEAT	COOL	ADJUST
070V36B	2	4	NORM
090V36C	2	4	NORM
090V48C	2	4	NORM
090V60C	2	4	NORM
110V60C	2	4	NORM
135V60D	2	4	NORM

NOTE: SEE INSTALLATION INSTRUCTIONS FOR PROCEDURE TO SET CORRECT BLOWER SPEED FOR SPECIFIC COOLING TONNAGE BEING APPLIED, AND HEATING TEMPERATURE RISE DESIRED.

TYPICAL SYSTEM SHOWN FOR 2 HEAT/2 COOL WITH A CONVENTIONAL THERMOSTAT. SEE INSTALLATION INSTRUCTIONS FOR CONNECTIONS TO OTHER EQUIPMENT AND ACCESSORIES.

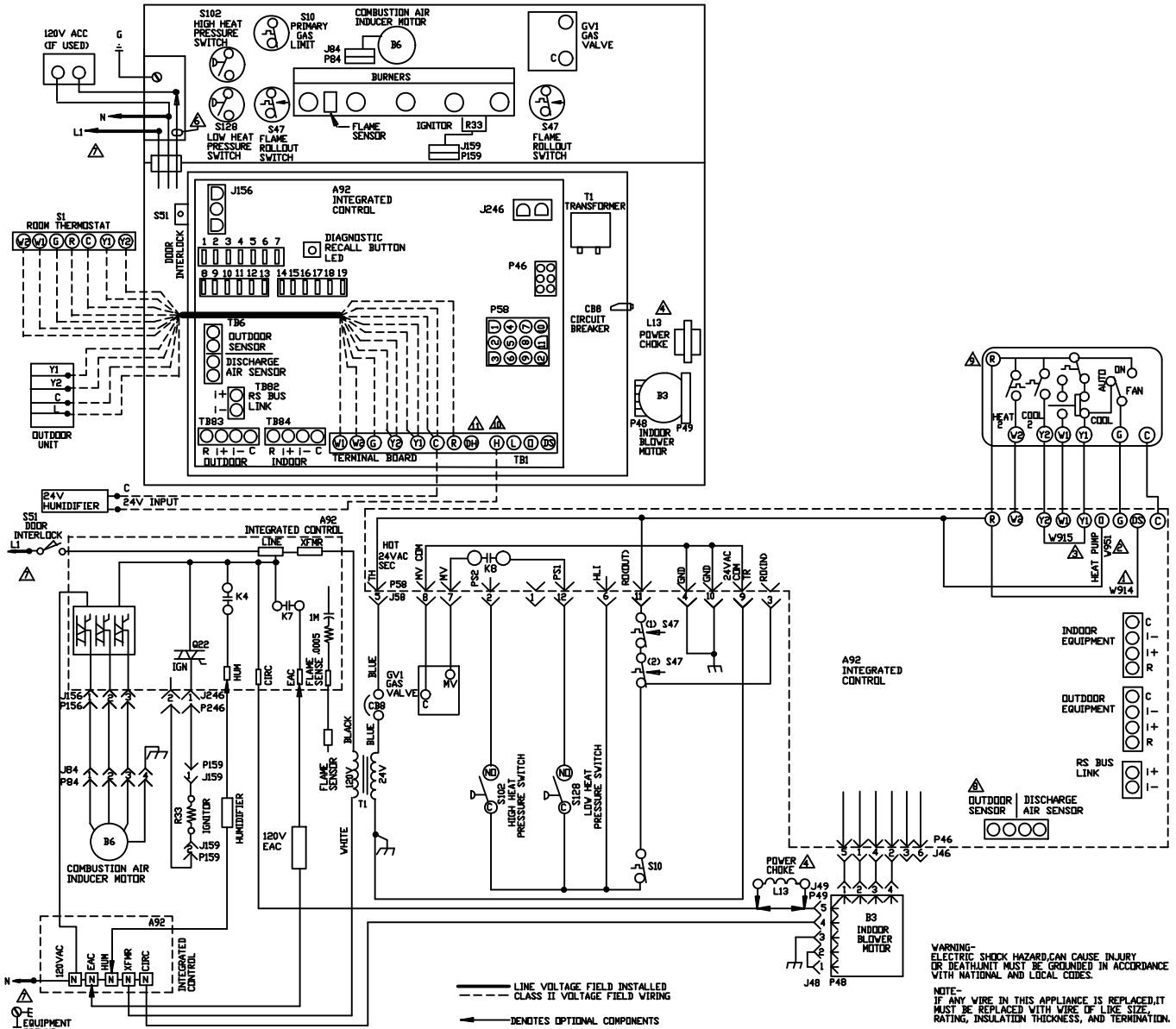
A TWO STAGE THERMOSTAT MUST BE USED WITH THIS FURNACE IN VARIABLE CAPACITY MODE. REFER TO INSTALLATION INSTRUCTIONS FOR MORE INFORMATION ON RECOMMENDED TYPES OF THERMOSTATS AND SETTINGS FOR OPTIMAL PERFORMANCE

FURNACE SIZE SELECTION CODE		
CODE ON 7 SEGMENT LED	FURNACE MODEL SLP98UH	INDOOR BWR MOTOR HP SIZE
A	070V36B	1/2
b	090V36C	1/2
c	090V48C	3/4
d	090V60C	1
E	110V60C	1
F	135V60D	1

- ⚠ L13 USED ON 3/4 AND 1 HP ONLY
- ⚠ DIP SWITCH FACTORY DEFAULT IS FOR A TWO STAGE THERMOSTAT
- ⚠ FIELD SUPPLIED ACC WIRE
- ⚠ USE COPPER CONDUCTORS ONLY
- ⚠ DISCHARGE AND OUTDOOR AIR TERMINALS ARE FOR iComfort USE ONLY
- ⚠ THERMOSTAT CONNECTIONS ARE FOR NON-COMMUNICATING SYSTEM ONLY. REFER TO iComfort INSTALLATION INSTRUCTIONS FOR COMMUNICATING SYSTEM
- ⚠ 24V POWER PROVIDED FOR OPTIONAL HUMIDIFIER DURING HEAT DEMAND
- ⚠ DH AND L TERMINALS ARE ONLY USED WITH iComfort THERMOSTAT

FIGURE 3

TYPICAL SLP98/99DFV WIRING DIAGRAM



UNIT	BLOWER SPEED CHART		
	FACTORY SHIPPED SETTINGS	HEAT	COOL
070V36B	2	4	NDRM
090V36C	2	4	NDRM
090V48C	2	4	NDRM
090V60C	2	4	NDRM
110V60C	2	4	NDRM

JACKPLUG CHART	
J.P46	JACK/PLUG-CONTROL, VARIABLE SPEED
J.P48	JACK/PLUG-MOTOR, VARIABLE SPEED
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FURNACE SIZE SELECTION CODE		
CODE ON 7 SEGMENT LED	FURNACE MODEL SLP98DF	INDOOR BWR MOTOR HP SIZE
H	070V36B	1/2
J	090V36C	1/2
L	090V48C	3/4
n	090V60C	1
o	110V60C	1

NOTE: SEE INSTALLATION INSTRUCTIONS FOR PROCEDURE TO SET CORRECT BLOWER SPEED FOR SPECIFIC COOLING TONNAGE BEING APPLIED, AND HEATING TEMPERATURE RISE DESIRED.

TYPICAL SYSTEM SHOWN FOR 2 HEAT/2 COOL WITH A CONVENTIONAL THERMOSTAT. SEE INSTALLATION INSTRUCTIONS FOR CONNECTIONS TO OTHER EQUIPMENT AND ACCESSORIES.

A TWO STAGE THERMOSTAT MUST BE USED WITH THIS FURNACE IN VARIABLE CAPACITY MODE. REFER TO INSTALLATION INSTRUCTIONS FOR MORE INFORMATION ON RECOMMENDED TYPES OF THERMOSTATS AND SETTINGS FOR OPTIMAL PERFORMANCE.

- LINE VOLTAGE, FIELD INSTALLED
 - - - CLASS II VOLTAGE, FIELD WIRING
 ← DENOTES OPTIONAL COMPONENTS
- TERMOSTAT HEAT ANTICIPATION SETTING
 [.65 AMP] HONEYWELL VALVE
- ⚠ CUT W914 JUMPER LABELED "DEHUM OR HARMONY" FROM DS TO R, AT A92 CONTROL BOARD, WHEN USED WITH SIGNATURESTAT.
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- ⚠ FACTORY DEFAULT IS FOR A 2 STAGE THERMOSTAT
- ⚠ FIELD SUPPLIED ACC WIRE
- ⚠ USE COPPER CONDUCTORS ONLY
- ⚠ DISCHARGE AND OUTDOOR AIR TERMINALS ARE FOR Icomfort USE ONLY
- ⚠ THERMOSTAT CONNECTIONS ARE FOR NON-COMMUNICATING SYSTEM ONLY. REFER TO Icomfort INSTALLATION INSTRUCTIONS FOR COMMUNICATING SYSTEM
- ⚠ 24V POWER PROVIDED FOR OPTIONAL HUMIDIFIER DURING HEAT DEMAND
- ⚠ DH AND L TERMINALS ARE ONLY USED WITH Icomfort THERMOSTAT S1 ROOM THERMOSTAT

FIGURE 4
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