SERVICE INSTALLER'S X341956P04

GUIDE

ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES

Models:

*DD060R9V3**

*UD060R9V3**

*UD100R9V5**

*DD080R9V3**

*UD080R9V3**

*UD120R9V

*DD100R9V5**

*UD080R9V4**

*UD140R9\

*DD120R9V5** *1

*UD100R9V3**

* May be "A" or "a" ** May be "A" - "Z" KIT 09370 (RETROFIT KIT CNT02223)

IMPORTANT—This document is customer property and is to remain with this unit. Please return to service information pack upon completion of work.

Assembly Drawing No. A342133G02, KIT COMPONENTS — APPLICATION:

Item No.	Drawing No.	Description	Qty
1	D156805P01	Igniter - Silicon Nitride	1
2	D341870P01	IFC control platform	1
3	B340650P01	Switch-Door	1
4	C341103P01	Bracket-Door Switch	1
5	A342485P01	Screw 10-16 B HWH 5/16	6
6	B342004P07	. Wire-BK	- 1
7	D344302P01	Harness Adapter	1
-8	D156245P01	IFC	1
9	A342136P02	Mnemonic label	1
10	C340041P04	Transformer	1
11	B341899P01	Wire-BK-4	1
12	B341899P02	Wire-WH-4	1
13	D344299P02	Wiring diagram - UD	1
14	D344300P02	Wiring diagram - DD	1
15	N156P1506B	Screw 8-18 AB x HWH 3/8 S	3
16	C107736P06	Cable Tie ,	· 4

Use these instructions when replacing the following Integrated Furnace Controls (IFC):

White-Rodgers	Trane	Replacement	Description
Dwg. No.	Dwg. No.	Part No.	
50A51-507	D340949P01	CNT02223	SiC/ white box
50V61-507-05	D341420P01	CNT03078	SiNi
50V61-507-06	D341420P02	CNT05120	SiNi

A WARNING

Disconnect power to the unit before removing the blower door. Failure to follow this warning could result in personal injury from moving parts.

A WARNING

The cabinet must have an uninterrupted or unbroken ground according to National Electrical Code, ANSI/NFPA 70 - "latest edition" and Canadian Electrical Code, CSA C22.1 or local codes to minimize personal injury if an electrical fault should occur. A failure to follow this warning could result in an electrical shock, fire, injury, or death.

REMOVING THE EXISTING SIC CONTROL AND IGNITER:

- A) Turn the thermostat to the off position.
- B) Disconnect all electric power and shut off the gas supply to the furnace.
- C) Remove the burner and blower door.
- D) Remove the direct vent cover from the direct vent box, if applicable.

A WARNING

Do not touch igniter. It is extremely hot. Failure to follow this warning could result in severe burns.

E) Disconnect the igniter wire harness from the silicon carbide igniter and remove the igniter bracket from the burner assembly. Discard the igniter and bracket.

A CAUTION

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

- F) Disconnect all the wires from the IFC and remove the IFC and platform from the unit.
- G) FOR UPFLOW MODELS: Remove the door switch assembly from the platform, save the assembly for the new IFC platform.

INSTALLING THE NEW SINI IGNITER:

- A) Remove the igniter from the igniter bracket.
- B) Install the igniter (item 1) to the igniter bracket using the screw provided in the kit (item 15).
- C) Install the igniter assembly to the burner bracket using the screws provided in the kit (item 15).
- D) Attach the harness adapter (item 7) to the SiNi igniter and existing wire plug.
- E) Secure the harness wiring with the cable ties provided in the kit (item 16).

INSTALLING THE NEW SINI CONTROL:

FOR UPFLOW MODELS:

- A) Attach the door switch to the platform.
- B) Attach the platform to the unit.
- C) Reconnect the wires to the IFC. Refer to the wiring diagram on the blower door for proper connection of wires.
- D) Reinstall the burner and blower doors.
- E) Reconnect all electric power and turn on the gasupply to the unit.

A CAUTION

The integrated furnace control is polarity sensitive. The hot leg of the 115 VAC power must be connected to the BLACK field lead.

FOR DOWNFLOW MODELS:

- A) Relocate the transformer to the bottom side of the platform. See Figure 2.
- B) Attach the platform to the unit.
- C) Attach the door switch assembly (item #3 & 4) to the cabinet using the screws (item #5) provided in the kit. See Figure 1.
- D) Attach the hot line from the inner blower door interlock to the door switch.
- E) Attach the hot line (black wire with no markings supplied in this kit, item #6) from the door switch to the IFC (hot line terminal).
- F) Reconnect the wires to the IFC. Refer to the wiring diagram for proper connection of wires.
- G) Reinstall the burner and blower doors.

H) Reconnect all electric power and turn on the gas supply to the unit.

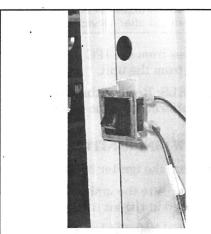
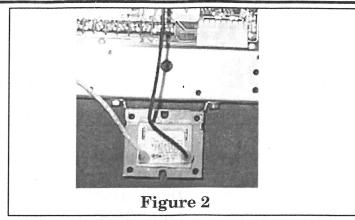


Figure 1

Trane 6200 Troup Highway Tyler, TX 75707



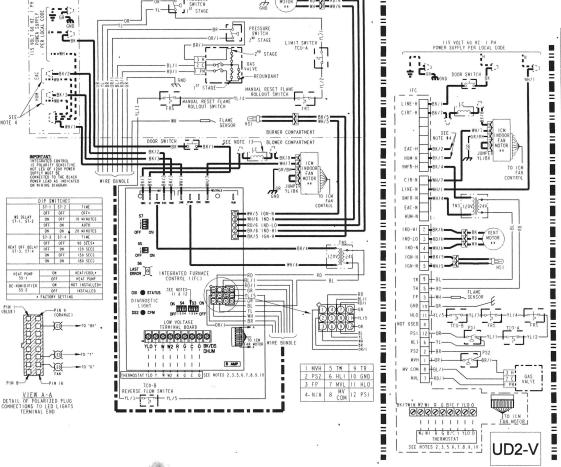
VERIFICATION OF PROPER OPERATION:

- A) Place the thermostat in the heating mode.
- B) Initiate a call for heat by raising the thermostat setting 5 degrees above the room temperature.
- C) Observe the furnace: If properly wired, the following star-up sequence should be observed:
 - The draft inducer should energize, then the igniter should start to glow.
 - After the igniter heat up time has expored, the gas valve should be energized listen for the "click", the gas will then ignite.
 - After 45 seconds the main blower will turn on.

When proper operation has been verified, set the thermostat back to the desired comfort set point.

- D) Sign and attach the mnemonic label (item # 9) to the front of the blower door.
- E) Attach wiring diagram D344299P02 for upflow furnace models or D344300P02 for downflow furnace models to the inside of the blower door.

Integrated Furnace Control Error Flash Codes							
Green LED	Amber LED	Red LED	FROOD				
Flash	Flash	Flash	ERROR ,				
		1	Flame sensed when no flame should be present				
		2	Pressure switch stuck closed				
		3	1st stage pressure switch is open / not closing				
		4	Open thermal limit or open rollout				
		5	Open low voltage fuse				
		6	1st stage pressure switch opened 5 times within on				
0000		6	6 cycle1 hour lockout 7 System lockout retry				
		7 .	System lockout retry				
	-	8	System lockout recycle ·				
		9	Reverse polarity or poor grounding				
	7.21.22	10	Gas valve energized without call for heat				
		12	Reverse polarity or poor grounding Gas valve energized without call for heat Ignitor relay failure internal in board. Replace IFC Gas valve relay failure internal in board. Replace IFC				
		Solid	Gas valve relay failure internal in board. Replace IFC				
	,	3 Double	2nd stage pressure switch open; system reverts back to				
		3 Double	1st stage heat				
	1		1st stage call for heat				
	2		2nd stage call for heat				
	3		W2 call present without W1				
	4		Y call present without G				
	Rapid Low flame sense current						
1			Standby mode or call for cooling				



JUNCTION BOX

TABLE "A" MODELS *HDD60R9V3** *UD2B060A9V3V** *UD080R9V4** *UD2C080A9V4V** *HD100R9V5** *UD2C100A9V5V** *UD2D140A9V5V** *UD2C100B9V5V**

INTEGRATED FURNACE CONTROL

| INTEGRATED FURNACE CONTRC
| FLORE | FAST |

0-50	TCO THERMAL CUT OUT	LINE FACTORY	BK BLACK GR GREEN WH WHITE BR BROWN
°T°	PS PRESSURE SWITCH	LINE FIELD	YL YELLOW RD RED OR ORANGE BL BLUE
50	FRS FLAME ROLLOUT SWITCH	** INTERNAL THERMAL PROTECTION	BK/ NUMBER ID (IF ANY)
\Box	FP FLAME SENSOR	0	-NUMBER TO CIT ANTI

CHASSIS GROUND NEUTRAL TR 24 VAC LCOMMON HSI HOT SURFACE GND GROUND INC. TRANSFORMER B/C COMMON O O DOOR SWITCH HLO HIGH LIMIT OUTPUT HLI HIGH LIMIT INPUT

THANK OF THE ORIGINAL WIRING AS SUPPLIED WITH THIS FURNACE MUST BE REPLACED, IT MUST BE WITH WIRE HAVING A TEMPERATURE RATING OF AT LEAST 10 S C THEODOSTA HEAT ANT CLIPPOR SETTING FIRST STAGE 38 AMPS. SECOND STAGE, 13 AMPS IS SETTING IS NOT FIRED ON THEMOSTAI, FOR SINGLE STAGE HEATING THE MOSTAI, FOR STROKE STAGE HEATING THE MOSTAI SET AS STAGE AND STAGE HEATING THE MOSTAI SET AS STAGE AND STAGE HEATING THE SETTING AS INCLE STAGE HEATING OF AT HEAD STAGE HEATING THE SETTING AS INCLE STAGE HEATING THE SUBSTAGE HEATING THE SUBSTAGE HEAT DECAY IS CONTROLLED BY 57-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH AS THE COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH AS THE COUNTRIBUTED BY ST-1 & 57-2 REFERENCE THE SERVICE FACTS FOR DIP SWITCH SET AND STAFF SCOOL FACTS FOR THE SWITCH SERVICE FACTS FOR THE SWITCH SERVICE FACTS FOR THE SWITCH SERVICE FACTS FOR THE SWITCH SET AND STAFF SCOOL FACTS FOR THE SWITCH SET AND STAFF

	2000年									
		INDOOR MOTO	R AIRFLOW SELECT	ION CHART						
		OUTDOOF	UNIT (SIZE IN	TONS)						
SWITCH SETTING *UD2/DD2B060 *UD2/DD2B080-9V3 *UD2C080-9V4 *UD2B100-9V3 *UD2/DD2C100-9V5 *UD2/DD2D120 *UD2/DD2D140					*UD2D140	COOLING OFF DELAY OPTIONS				
\$3-1 OFF \$3-2 OFF**	3	3.5	4	3	5	5	5		SELECTION	NORMAL SELECTION
\$3-1 ON \$3-2 OFF	2.5	3	3 . 5	2.5	4	4	4	S4-1 OFF S4-2 OFF	NONE	SAME
\$3-1 OFF \$3-2 ON	2	2.5	3	2	3.5	3.5	3.5	\$4-1 ON \$4-2 OFF** .	90 SEC	100% (BAY24X045 EQUIVALENT
\$3-1 ON \$3-2 ON	1.5		. 2.5	1.5	3 .			S4-1 OFF S4-2 ON	180 SEC	50%
	HI	EATING AIRFLOW SETT	INGS - CFM (1st	STAGE / 2nd STAG	GE)			S4-1 ON S4-2 ON	COMFORT-R	50%-100%
\$4-3 OFF \$4-4 OFF (HIGH)	800/1100	1050/1450	975/1400	1025/1400	1300/1800	1250/1800	1450/2050	COOLING AIRFLOW SETTINGS		* PREFIX MAYBE "T" OR "A"
\$4-3 ON \$4-4 OFF** (NORMAL)	700/950	900/1250	875/1250	950/1300	1100/1550	1150/1600	1300/1800	\$3-3 ON \$3-4 OFF (HIGH)	450 CFM/TON	** FACTORY SETTING
S4-3 OFF S4-4 ON (MED-LOW)	MEDIUM	MEDIUM	MEDIUM	MEDIUM	MEDIUM	MEDIUM	MEDIUM	\$3-3 OFF \$3-4 OFF** (NORMAL)	400 CFM/TON	
\$4-3 ON \$4-4 ON (LOW)	600/800	800/1100	775/1100	800/1100	900/1250	1000/1400	1150/1600	\$3*3 OFF \$3-4 ON (LOW)	350 CFM/TON	1

⚠ WARNING

DISCONNECT ALL ELECTRICAL POWER INCLUDING REMOTE DISCONNECTS REFORE SERVICING

FAILURE TO DISCONNECT FOMEN BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OF DEATH

UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS

FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMEN

DIAGNOSTIC CODES

REP LED FLAMH

FLAME SENSED WHE

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2 FLASSING SHOULD BE PRESENT

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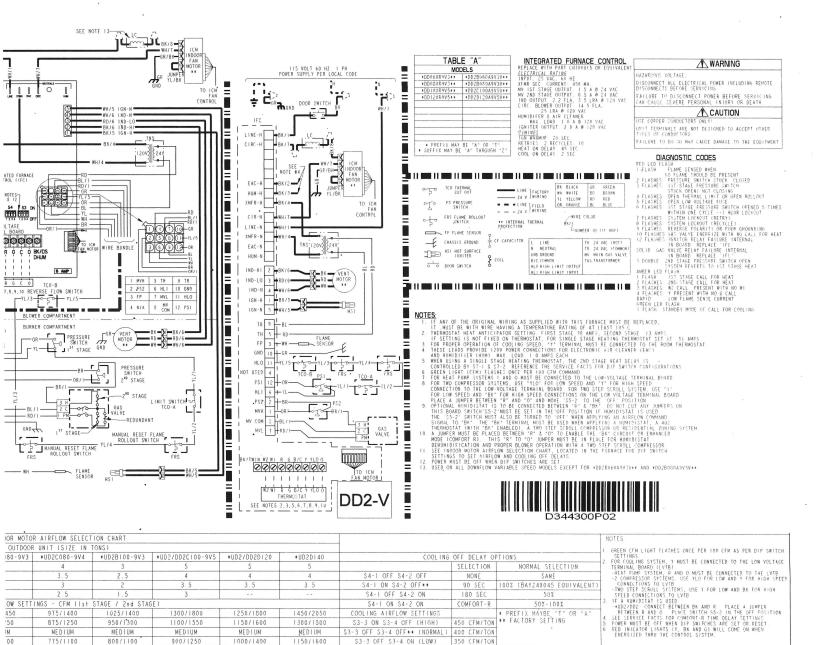
4 FLASHES STATES PRESENTES ANTON

5 FLASSING SHOULD SHOUL

USE COPPER CONDUCTORS ONLY!

DIAGNOSTIC CODES

GREEN CFM LIGHT FLASHES ONCE PER 100 CFM AS PER DIP SWITCH SETTINGS
FOR GOOLING SYSTEM, Y MUST BE CONNECTED TO THE LUW YOLTAGE TERMINAL BOARD LLVTBI.
FERMINAL BOARD LLVTBI.
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\$4-1 ON \$4-2 OFF** \$4-1 OFF \$4-2 ON

\$4-1 ON \$4-2 ON

COOLING AIRFLOW SETTING

\$3-3 ON \$3-4 OFF (HIGH)

OW SETTINGS

975/1400

875/1250

450

0.0

AGE / 2nd STAGE

1300/1800

1025/1400

950/1300

800/1100

1250/1800

1150/1600

1450/2050

1300/1800

MEDIUM

1150/1600

90 SE

180 SEC

COMFORT-R

450 CFM/TON

100% (BAY24X045 EQUIVALENT)

50%-100%

* PREFIX MAYBE "T" ** FACTORY SETTING