SERVICE INSTALLER'S GUIDE

X341956P04

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

Models:

DD060R9V3*	***UD060R9V3****	***UD100R9V5****
DD080R9V3*	***UD080R9V3****	***UD120R9V5****
DD100R9V5*	***UD080R9V4****	***UD140R9V5****
DD120R9V5*	***UD100R9V3****	

*** May be "A" or "T"**
**** 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
17	A341948P02	Igniter Bracket	1

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

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

⚠ WARNING

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

⚠ 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.

⚠ 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.

⚠ 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 gas supply to the unit.

⚠ 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

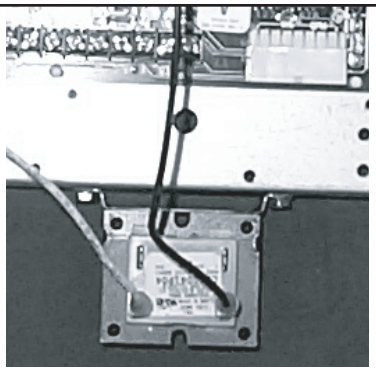

Figure 2

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 Flash	**Amber LED Flash**	**Red LED 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 cycle--1 hour lockout
		7	System lockout retry
		8	System lockout recycle
		9	Reverse polarity or poor grounding
		10	Gas valve energized without call for heat
		12	Ignitor 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 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

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