

# SERVICE INSTALLER'S GUIDE

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

Models:  
KIT07534

## CONVERSION KIT: SiC to SiNi Igniter

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

SiC to SiNi CONVERSION KIT - KIT07534

Drawing no. B341767P01,  
White Rodgers kit no 21D65-480-S1

**KIT COMPONENTS** — Refer to Figure 1 for part  
identification.

Item No.	Drawing No.	Description	Quantity
1	D341396P02	SiNi bareboard with cover, CNT03604	1
2	A341768P01	Wire (wh/4)	1
3	A341768P02	Wire (bk/4)	1
4	A341768P03	Wire (wh)	2
5	A341769P01	Harness adapter	1
6	N743P1516B	Machine screw (#8-18x1")	4
7	A341947P01	Igniter- SiNi, IGN00117	1
8	A341948P01	Igniter bracket	1
9	N156P1506B	Machine screw (#8-15x.375")	3
10	A341673P02	Conversion label	1
11	X341771P02	Installer's Guide	1

### APPLICATION:

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

50A50-405	D340035P01	SiC/ white box
50A50-406	D340054P01	SiC/ white box
50A50-471	D340774P01	SiC/ white box
50A50-472	D340790P01	SiC/ white box
50A50-473	D330930P01	SiC/ white box
50A50-474	D330934P01	SiC/ white box
50A50-571	D330927P01	SiC/ gray box
50A55-474	D341235P01	SiC/ bareboard
50A55-571	D341122P01	SiC/ bareboard

### ⚠ 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.

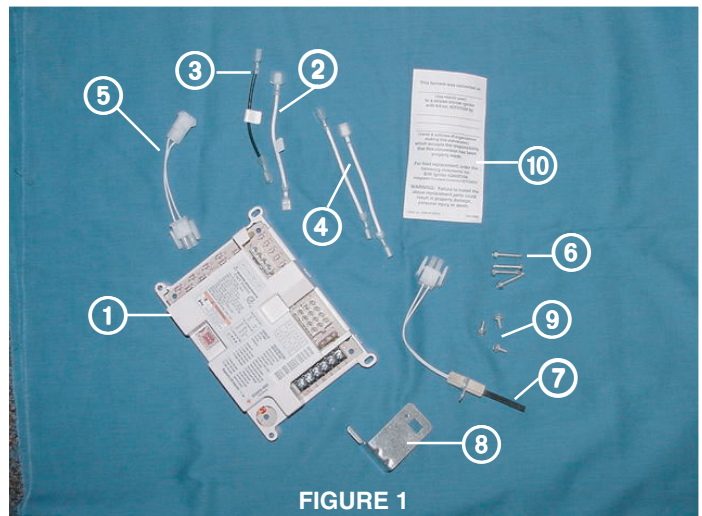


FIGURE 1

### REMOVING THE EXISTING SiC CONTROL:

- Turn the thermostat to the off position.
- Disconnect all electric power and shut off the gas  
supply to the furnace.
- Remove the burner assembly and blower door.

### ⚠ WARNING

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

- Disconnect the igniter wire harness from the silicon  
carbide igniter and remove the igniter bracket from  
the burner assembly. Discard the bracket.
- Disconnect all the wires from the IFC and remove  
the IFC from the unit.

**⚠ CAUTION**

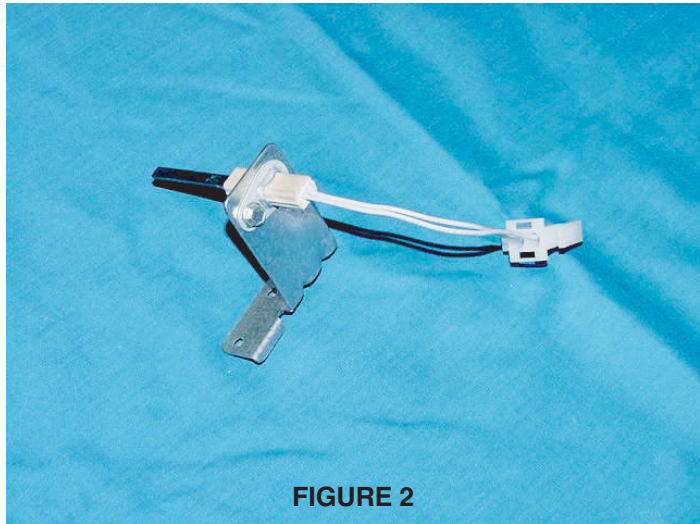
Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

**INSTALLING THE NEW SiNi CONTROL:**

- A) Attach the silicon nitride igniter (item #7) to the igniter bracket (item #8), figure 2, with the screw (item #9) provided.
- B) Install the new igniter bracket assembly to the burner assembly with the screws provided (item #9).
- C) Attach the harness adapter (item #5) to the SiNi igniter and existing wire plug.

**⚠ CAUTION**

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



**FIGURE 2**

- D) Attach the IFC (item #1) to the platform using the self tapping screw provided (item #6, #8-18x1”).
- E) Reconnect the wires to the IFC. Additional jumper wires (item #2,3,&4) are included in the kit if the original wires do not reach the IFC. Refer to the wiring diagram on the blower door for proper connection of the wires.
- F) Reinstall the burner assembly and blower doors.
- G) Reconnect all electric power and turn on the gas supply to the unit.

**H) VERIFICATION OF PROPER OPERATION:**

- 1.) Place the thermostat in the heating mode.
  - 2.) Initiate a call for heat by raising the thermostat setting 5 degrees above the room temperature.
  - 3.) Observe the furnace: If properly wired, the following start-up sequence should be observed:
    - the red LED on the IFC should start a fast flash sequence.
    - the draft inducer should energize, then the igniter should start to glow.
    - after the igniter heat up time has expired, 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.
- I) Sign and attach the conversion label (item #10) to the front of the blower door.

**SiNi - IFC ERROR CODES**

INTEGRATED FURNACE CONTROL ERROR FLASH CODES	
Flashing Slow ---	Normal - No call for Heat
Flashing Fast ---	Normal - Call for Heat
Continuous ON ---	Replace IFC
Continuous OFF ---	Check Power
2 Flashes ---	System Lockout (Retries or Recycles exceeded)
3 Flashes ---	Draft Pressure Error - Possible problems: a) Venting problem b) Pressure switch problem c) Inducer problem
4 Flashes ---	Open Temperature Limit Circuit
5 Flashes ---	Flame sensed when no flame should be present
6 Flashes ---	115 volt AC power reversed, poor grounding or system voltage too low
7 Flashes ---	Gas valve circuit error
8 Flashes ---	Low flame sense signal
9 Flashes ---	Check Ignitor Circuit and Line "N" to 24VAC "Common" voltage ( $\leq 2$ volts) [possible grounding problem]