

# Service Installer's Guide

18-CH111D1-1A-EN



**Furnace model families:  
See Below**

## KIT 20350 SiNi 80 Volt Igniter Conversion to SiNi 120 Volt Igniter

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

**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. 50713104

**KIT COMPONENTS — APPLICATION:**

| Item No. | Drawing No.      | Description                    | Qty |
|----------|------------------|--------------------------------|-----|
| 1        | D343686P03       | IFC 2-STAGE VARIABLE           | 1   |
| 2        | D343723P01       | HARNESS-ADAPTER                | 1   |
| 3        | D156805P01       | SILICON NITRIDE IGNITER (SiNi) | 1   |
| 4        | A341948P02       | BRACKET- SINI IGNITER          | 1   |
| 5        | N156P1506B       | SCR 8-18 AB HXW 3/8 S          | 3   |
| 6        | 50713114         | MNEMONIC LABEL                 | 1   |
| 7        | 18-CH111D1-1A-EN | INSTALLER GUIDE                | 1   |
| 8        | N743P1516B       | SCR 8-18 HXW 1                 | 4   |
| 9        | A341768P01       | WIRE (WH/4)                    | 1   |
| 10       | A341768P02       | WIRE (BK/4)                    | 1   |
| 11       | A341768P03       | WIRE (WH)                      | 2   |

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

| White-Rodgers<br>Dwg. No. | Trane<br>Dwg. No. | Replacement Description<br>Part No. |
|---------------------------|-------------------|-------------------------------------|
| 50V60-507-01              | D342262P08        | CNT08012 IFC-2 STG KIT              |

**⚠ 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 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.**

**⚠ WARNING**

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

- E. Disconnect the igniter wire harness from the igniter and remove the igniter bracket from the burner assembly. Discard the igniter, screws, and bracket.
- F. Disconnect all the wires from the IFC and remove the IFC from the platform.

**INSTALLING THE NEW SiNi IGNITER:**

- A. Install the igniter (item 3) to the igniter bracket (item 4) using the screw provided in the kit (item 5).
- B. Install the igniter assembly to the burner bracket using the screws provided in the kit (item 5).
- C. Attach the harness adapter (item 2) to the SiNi igniter and existing wire plug.
- D. Install the direct vent cover to the direct vent box, if applicable.

**INSTALLING THE NEW SiNi CONTROL:**

- A. Install the new IFC to platform with the self-tapping screw provided (item 8).
- B. Reconnect the wires to the IFC. Additional jumper wires (items 9, 10, and 11) 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 wires.
- C. Install the burner and blower doors.
- D. Reconnect all electric power and turn on the gas supply to the unit.

**⚠ WARNING**

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

| Integrated Furnace Control Diagnostic Codes |                |   |
|---|----------------|---|
| Green LED Flash                             | Red LED Flash  | ERROR - (LitePort™ DATA)                          |
|   | 1              | NORMAL OPERATION<br>- Flash every 20 seconds      |
|   | 2              | SYSTEM LOCKOUT<br>RETRIES OR RECYCLES<br>EXCEEDED |
|   | 3              | PRESSURE SWITCH FAULT                             |
|   | 4              | OPEN LIMIT SWITCH                                 |
|   | 5              | FLAME SENSED WHEN NO<br>FLAME SHOULD BE PRESENT   |
|   | 6              | 115 VOLT AC POWER REVERSED<br>OR IMPROPER GROUND  |
|   | 7              | GAS VALVE CIRCUIT ERROR                           |
|   | 8              | LOW FLAME SENSE SIGNAL                            |
|   | 9              | IGNITER RELAY FAULT                               |
| Slow Flash                                  |                | NORMAL, NO CALL FOR HEAT                          |
| Fast Flash                                  |                | NORMAL, CALL FOR HEAT<br>PRESENT                  |
| Continuous On                               | Continuous On  | INTERNAL CONTROL FAILURE                          |
| Continuous Off                              | Continuous Off | FUSE OPEN   |

**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 start-up sequence should be observed:
  - 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.

- D. Sign and attach the mnemonic label (item 6) to the front of the blower door.

**Furnace model families:**

|                 |                 |                 |
|-----------------|-----------------|-----------------|
| TDX2B060A9362AB | TDX100R948W5    | TDX100R948W6    |
| TDX120R960W6    | ADX080R942W7    | AUX2B060A9362AB |
| ADX120R960W6    | TUX080R942W5    | ADX080R942W6    |
| AUX100R948W6    | TUX100R948W6    | ADX2B060A9362AB |
| AUX080R942W5    | AUX120R960W6    | TUX2B080A9422AB |
| TDX2B080A9422AA | ADX120R960W5    | AUX2D120A9602AB |
| TUX2B060A9362AA | ADX2C100A9482AA | ADX100R948W6    |
| TUX120R960W5    | TUX120R960W6    | TDX120R960W5    |
| AUX2C100A9482AB | AUX060R936W3    | AUX080R942W6    |
| TDX080R942W6    | TUX060R936W3    | TUX080R942W6    |
| TUX2B060A9362AB | TDX060R936W3    | TUX060R936W6    |
| TDX2B060A9362AA | ADX080R942W3    | TUX2B080A9422AA |
| AUX2D120A9602AA | TDX120R960W3    | TDX060R936W6    |
| AUX060R936W6    | AUX100R948W3    | ADX080R942W5    |
| ADX2D120A9602AB | TUX120R960W3    | ADX100R948W5    |
| AUX2B080A9422AB | TUX080R942W3    | ADX2C100A9482AB |
| TUX2D120A9602AB | ADX060R936W3    | TDX080R942W5    |
| AUX2B060A9362AA | TDX080R942W3    | TUX2C100A9482AB |
| TDX2C100A9482AA | AUX120R960W3    | ADX2B060A9362AA |
| TUX100R948W5    | TDX100R948W3    | AUX100R948W5    |
| TDX080R942W7    | ADX100R948W3    | ADX2B080A9422AB |
| AUX2B080A9422AA | ADX120R960W3    | TUX2D120A9602AA |
| TDX2D120A9602AA | AUX080R942W3    | TDX2D120A9602AB |
| TDX2B080A9422AB | TUX100R948W3    | ADX2D120A9602AA |
| AUX120R960W5    |                 | AUX060R936W5    |
| ADX2B080A9422AA |                 | ADX060R936W6    |
| TDX2C100A9482AB |                 |                 |
| TUX060R936W5    |                 |                 |
| AUX2C100A9482AA |                 |                 |
| TDX060R936W5    |                 |                 |
| ADX060R936W5    |                 |                 |
| TUX2C100A9482AA |                 |                 |

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