SERVICE INSTALLER'S 18-CH52D1-1 GUIDE

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

80 Volt SiNi Igniter Assembly: IGN00145

 $\label{eq:intermediate} \textbf{IMPORTANT} \\ \textbf{--} This document is customer property and is to remain with this unit. \\ Please return to service information pack upon completion of work.$

SiNi Igniter Assembly: IGN00145

Drawing no. D343748P01

WARNING

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

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 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 assembly 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 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.



INSTALLING THE NEW SINI IGNITER:

- A) Attach the silicon nitride igniter (item#1) to the new igniter bracket (item #3) with the screw provided (item #2, #8-15x.375").
- B) Install the new igniter bracket assembly to the burner assembly.
- C) Attach the igniter harness to the igniter.
- D) Install the direct vent cover to the direct vent box, if applicable.
- E) Install the burner & blower door.
- F) Reconnect all electrical power and turn on the gas supply to the unit.
- G) 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 ignitor should start to glow.

- After the ignitor 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.

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.

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 (≤ 2 volts) [possible grounding problem] | |

| Literature order number | 18-CH52D1-1 |
|-------------------------|-------------|
| File No. | 18-CH52D1-1 |
| Supersedes | New |
| Date | 11/09 |

For more information contact your local dealer (distributor) Since the manufacturer has a policy of continuous product and product data improvement, it reserves the right to change design and specifications without notice.