

# Q3200U Universal Hot Surface Igniter Kit

## INSTALLATION INSTRUCTIONS

### APPLICATION

The Q3200U Universal Hot Surface Igniter Kit is designed to provide a robust field service replacement igniter in gas fired appliances with Norton/St Gobain 120 VAC silicon carbide hot surface igniters. The Q3200U uses a 120 volt silicon nitride igniter design with long life and high resistance to damage or burn out in the appliance. The kit includes the specially designed silicon nitride igniter and six different bracket configurations to adapt the igniter to the specific appliance application along with accessory parts to allow mounting and wiring the igniter. Clear instructions and application templates are provided to simplify selection of the proper bracket and ease installation of the replacement.

### BEFORE YOU START

1. Review this instruction sheet fully to assure you are familiar with steps and information necessary to complete the installation properly.
2. Confirm the existing hot surface igniter has failed:
  - a. Run an appliance cycle and observe the installed igniter.
  - b. If the igniter glows, the problem is not the igniter.
  - c. If the igniter does not glow during an ignition cycle:
    - (1) Unplug the igniter lead wires.
    - (2) Set a voltmeter's scale to 300 VAC and connect the voltmeter to the igniter harness.
    - (3) Run another cycle and confirm 120 VAC power at the harness during the warm up time.
3. Check the appliance construction and wiring diagram (typically located on an appliance panel) and confirm that the appliance does **not** use the hot surface igniter as the flame sensor. Do **not** use the Q3200 kit if the existing igniter is also the flame sensor. Use an original equipment part.
4. If the appliance is a sealed combustion model, determine if the existing hot surface igniter ceramic is part of the sealing of the burner box. If it is, check carefully to determine if this kit will allow the proper appliance function.
5. Confirm the kit components:
  - a. six brackets stamped A, B, C, D, E, and F
  - b. one hot surface igniter with wiring leads
  - c. two wire nuts and a thread forming screw

### INSTALLATION

#### When Installing This Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the cross reference table on page 4 and the templates (Fig. 1 on page 2 and Fig. 2 on page 3) to make sure the proper igniter bracket is used for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out appliance operation as provided in these instructions.

### WARNING

**Fire or Explosion or Electrical Shock Hazard. Can cause severe injury, death or property damage.**

1. Never install where water can flood, drip or condense on the igniter or its controller.
2. Liquefied petroleum (LP) gas is heavier than air and will not naturally vent upward.
  - Do not operate electric switches, lights, or appliances until you are sure the appliance area is free of gas.
3. Disconnect power supply before beginning wiring or making wiring connections to prevent electrical shock or equipment damage.

#### Remove the old igniter assembly

1. Turn off electrical power supply external to the appliance.
2. Turn off gas supply to the appliance.
3. Set thermostat to the lowest setting or OFF.
4. Remove the appliance panel to expose the burner area. If necessary remove the burner box panel to expose the installed igniter.
5. Disconnect the installed igniter from the appliance wiring harness and move the wiring harness out of the way.
6. Carefully review the location of the installed igniter in the appliance. Pay attention to where the igniter is located relative to the burners and other parts of the appliance. This will help confirm the location of the new igniter for installation.



7. Locate and remove the screw(s) holding the installed igniter or igniter bracket assembly in place. Remove the installed igniter very carefully to avoid damaging it. Retain the screw(s) for re-installation.

NOTE: If there is an orange rubber gasket on the original metal bracket, carefully remove the gasket from the original bracket and use it with the Q3200U bracket E to support the replacement.

### Select the proper Q3200U bracket

1. Use the cross reference table to determine which igniter models are recommended for replacement. See Table 1 on page 4.
2. Using the bracket selection templates (Fig. 1 and Fig. 2), the cross reference (Table 1), and the original igniter assembly, place the igniter on the templates to confirm which bracket to use for this installation.

NOTES:

1. Each of the six brackets has a letter stamped on it (A through E) for easy identification.
2. If bracket A is selected, use pliers to remove either Tab 1 or Tab 2 at the score line per the bracket template directions.
3. If bracket E is selected, ensure that the original orange gasket (if present) is reused.
3. Install the Universal igniter into the selected bracket using the provided thread forming screw.

NOTE: In some appliance applications, installation may be easier if the bracket is installed in the appliance first, then the igniter added to the bracket. As the thread forming screw for the bracket takes some force for initial tightening, start the screw in the bracket to set the threads, remove the screw, attach the bracket to the appliance using the original screw(s), and then attach the igniter and its thread forming screw to the bracket.

### Install the replacement igniter

1. Carefully position the replacement igniter and bracket assembly into the appliance. Position the assembly so the existing mounting screw holes align with the mounting holes or slots in the replacement assembly.
2. Secure the replacement igniter bracket with the original igniter screws.

NOTE: In some applications, a shorter screw may simplify installation.

3. Orient the replacement igniter the same way as the original igniter was positioned and secure it. Be sure the igniter portion does not touch the appliance or burners.
4. Carefully route the replacement igniter lead wires away from the burner flame and any moving parts on the combustion air blower in the appliance.
5. Locate the appliance igniter wiring harness. Clip off the connector and strip both wires to 1/4 in. (6 mm).
6. Use the provided wire nuts to attach the igniter lead wires to the appliance wiring harness. The igniter lead wires can be cut shorter if desired. Strip them to 1/4 in. (6 mm) prior to attaching to the appliance wire harness.

### Check out the installation

1. Recheck location of the igniter bracket assembly and lead wires to assure there is no interference and that the lead wires will not be exposed to excessive heat or moving parts when the appliance is firing.
2. Recheck the line voltage connections between the igniter harness and the appliance wiring harness to be sure they are secure. Assure that no bare wire is exposed at this connection.
3. Turn the electrical power supply on, but leave the gas supply off, and initiate a light off (call for heat) cycle. Observe the hot surface igniter during the sequence to confirm it gets hot and that there is sufficient clearance between the igniter and other appliance parts. Also confirm that the lead wire routing does not interfere with appliance operation.
4. Remove the call for heat signal.
5. Turn the gas supply on.
6. Initiate a call for heat. Observe the light off sequence and confirm that the appliance lights properly and stays lit once the actual gas flow starts.
7. If the appliance lights and the main flame stays stable, remove the call for heat and allow the shut down sequence to be completed. Repeat step 6 two more times to assure the light off of the appliance is reliable.
8. If the appliance does not light properly, it may be necessary to adjust the location of the hot surface igniter. Each Q3200U bracket is designed to allow some adjustment of the igniter location in the appliance. Turn the gas supply off then loosen the mounting screw(s) and make adjustments. Retighten the screw(s) and repeat from step 5.

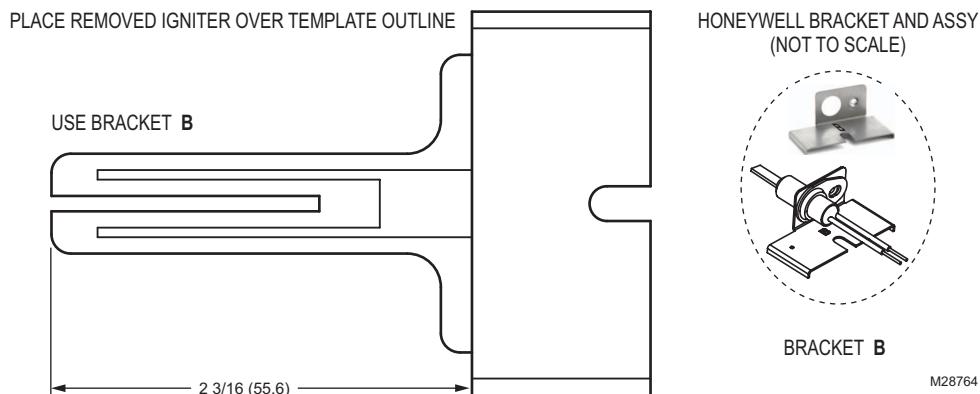


Fig. 1. Igniter bracket B template; dimensions in in. (mm).

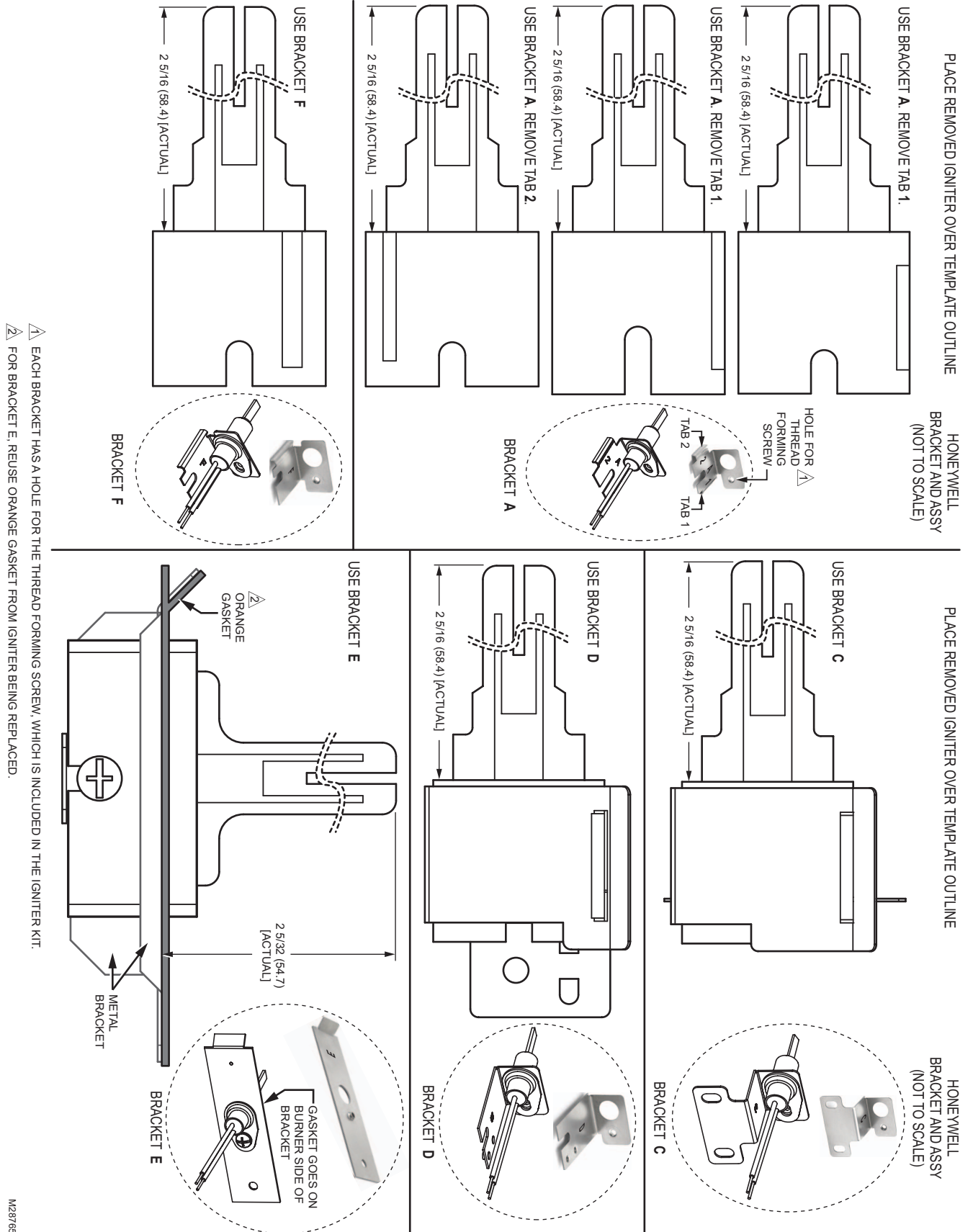


Fig. 2. Igniter brackets A, C, D, E, and F template; dimensions in in. (mm).

Table 1. Q3200U Igniter Bracket Replacement Cross Reference.<sup>a</sup>

| Mfr.                         | OEM #         | Q3200U Bracket <sup>b</sup> | Mfr.                 | OEM #       | Q3200U Bracket <sup>b</sup> | Mfr.                  | OEM #      | Q3200U Bracket <sup>b</sup> | Mfr.          | OEM #         | Q3200U Bracket <sup>b</sup> |
|------------------------------|---------------|-----------------------------|----------------------|-------------|-----------------------------|-----------------------|------------|-----------------------------|---------------|---------------|-----------------------------|
| American Road Equip.         | 201W          | A                           | Hupp Industries      | 09050       | A                           | Robertshaw            | 41-402     | A                           | Weil McLain   | 511-330-139   | B                           |
| Arco Air                     | 1096048       | D                           | Intercity            | 1009604     | D                           |                       | 41-403     | B                           |               | 511-330-190   | B                           |
|                              | 1380680       | D                           |                      | 1096048     | D                           |                       | 41-404     | B                           |               | 511-330-193   | B                           |
| Armstrong Air                | 38322B001     | A                           | Majestic             | 75-92-104   | A                           |                       | 41-405     | A                           | White LB      | 120-07549     | A                           |
| Carrier/<br>Bryant/<br>Payne | LH33ZS001     | B or E <sup>c</sup>         |                      | 75-92-105   | A                           |                       | 41-407     | B                           | White-Rodgers | 767A-301      | A                           |
|                              | LH33ZS001A    |                             |                      | 201N        | A                           |                       | 41-408     | A                           |               | 767A-303      | F                           |
|                              | LH33ZS002     |                             | Metzger              | 201W        | A                           |                       | 41-409     | B                           |               | 767A-306      | A                           |
|                              | LH33ZS002A    |                             | Modine               | 5H76032A    | C                           |                       | 41-410     | A                           |               | 767A-311      | A                           |
|                              | LH33ZS003     |                             | Mor-Flo              | 3200618     | A                           |                       | 41-412     | D                           |               | 767A-350      | A                           |
|                              | LH33ZS003A    |                             |                      | 511-330-193 | B                           |                       | 41-418     | C                           |               |               |                             |
|                              | LH33ZS004     |                             | Nordyne              | 105141000   | A                           | Snyder General        | 1380654    | B                           |               | 767A-353      | F                           |
| Claire Bros.                 | C-238         | A                           |                      | 632-0770    | A                           |                       | 1380672    | B                           |               | 767A-354      | A                           |
|                              | C242          | A                           | 632-0880             | A           | 1380680                     |                       | B          | 767A-357                    |               | F             |                             |
| Coleman                      | 1474-051      | A                           | Norton/<br>St Gobain | 201         | B                           | Superior<br>Fireplace | 94851      | A                           |               | White-Rodgers | 767A-361                    |
|                              | 1474-052      | A                           |                      | 271         | B                           |                       |            |                             | Tempstar      |               | 1096048                     |
| Comfort Maker                | 1096048       | D                           |                      | 201D        | A                           | Trane                 | 340039P01  | A                           | 767A-366      |               | A                           |
| Detroit Radiant              | 201D          | A                           |                      | 201K        | A                           |                       | B138196P01 | B                           | 767A-370      |               | B                           |
| DMO Ind.                     | 20834         | A                           |                      | 201L        | A                           |                       | B144676P01 | A                           | 767A-371      |               | A                           |
| Dornback Furnace             | 271W          | A                           |                      | 201N        | A                           |                       | B144676P02 | B                           | 767A-372      |               | A                           |
| Ducane                       | 20015201      | B                           |                      | 201R        | A                           |                       | B340039P01 | A                           | 767A-373      |               | D                           |
| Enero Tech                   | 10399         | A                           |                      | 201W        | A                           |                       | IGN23      | A                           | 767A-376      |               | B                           |
| Evcon                        | 1474-051      | A                           |                      | 271N        | A                           |                       | IGN26      | B                           | 767A-377      |               | A                           |
|                              | 1474-052      | A                           |                      | 271NM       | D                           |                       | IGN30      | B                           | 767A-382      |               | B                           |
| Evcon Coleman                | 025-32625-000 | B                           |                      | 271P        | A                           |                       | IGN34      | A                           | Williamson    | 9050          | A                           |
| Goodman                      | B1401009      | D                           |                      | 271W        | A                           |                       | Viessman   | 9302-094                    | A             | York          | 025-27766-000               |
|                              | B1401018      | C                           | Raypak               | 600915      | B                           | Wayne Home Equip.     |            | 62821-001                   | A             |               | 025-27774-000               |
|                              | B1401018S     | D                           | Rheem                | 62-22441-01 | A                           | 62821-002             | A          | 025-29043-000               | A             |               |                             |
| HB Smith                     | 50018         | A                           | Roberts Gordon       | 90434300    | B                           |                       |            | 025-29050-000               | A             |               |                             |
| Heil                         | 1096048       | D                           |                      | 90436600    | A                           |                       |            |                             |               |               |                             |

<sup>a</sup> Table data is correct to the best of Honeywell's knowledge as of this publication's date. However, some appliances may have igniter applications that are beyond the capabilities of this kit.

<sup>b</sup> For igniters that require bracket A, use the template (Fig. 2 on page 3) to determine the tab to be removed.

<sup>c</sup> For Carrier sealed combustion furnaces, you must use bracket E and retain the existing orange gasket for use with bracket E.

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