

## TECHNICAL SPECIFICATIONS

# FG7S (A and K Series)

## Single Stage Upflow/Horizontal and Downflow Gas Furnaces

**Induced Draft - 80+ AFUE**  
**Input 45,000 - 126,000 Btuh**

The gas furnace may be installed free standing in a utility room, basement, or enclosed in an alcove or closet. The rounded corner jacket provides a pleasing "appliance appearance." Design certified by CSA for application in Canada and the United States.



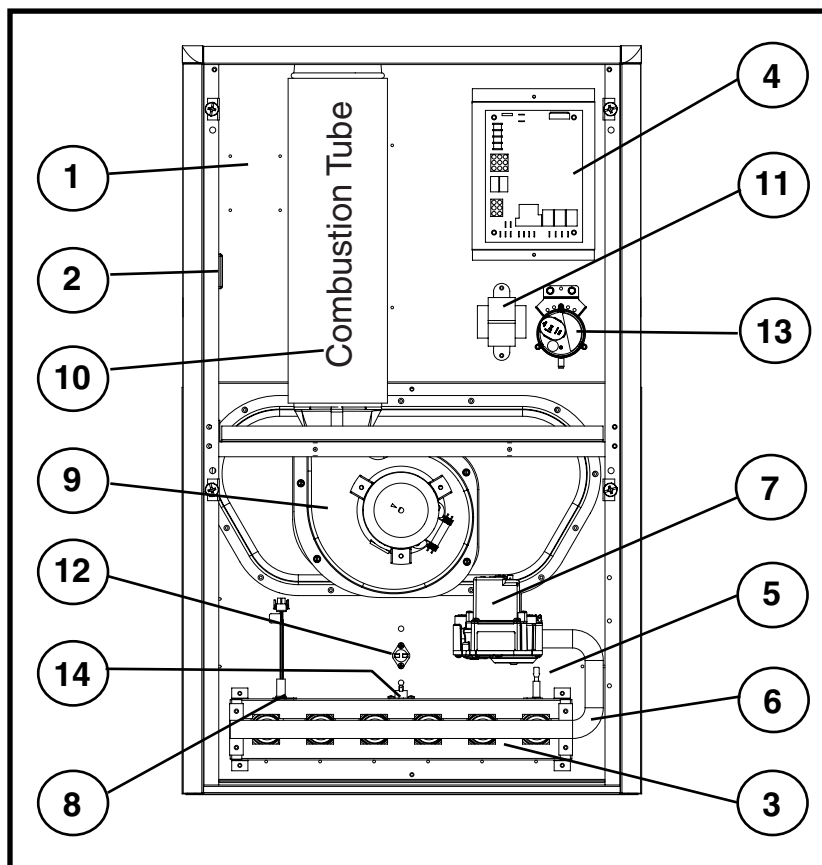
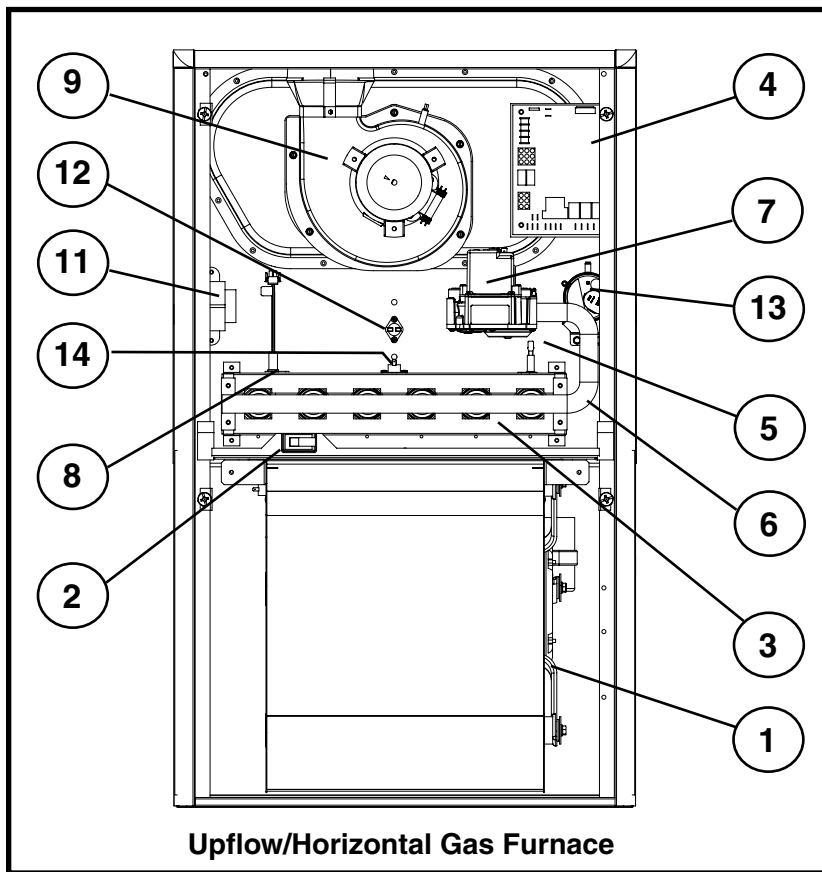
This furnace series is approved and certified by the SCAQM and the SJVAPC Districts in the state of California under each Districts' Mitigation Fee Plan for shipment into and sales in both districts.

For California installations in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 NOx emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: [www.CleanAirFurnaceRebate.com](http://www.CleanAirFurnaceRebate.com).

## FEATURES and BENEFITS

- **100% fired and tested:** All units and each component are tested on the manufacturing line.
- **Best packaging in the industry:** Unique corner post design assures product will arrive to the homeowner dent free.
- **Low Boy Height:** Easy to apply in low ceiling applications, works well with taller high SEER coils, easier to handle and install.
- **Tubular primary heat exchanger:** Heavy gauge aluminized steel heat exchanger assures a long life.
- **30 second blower delay at start-up:** Assures a warm duct temperature at furnace start-up. Adjustable blower off settings (60, 90, 120 and 180 seconds).
- **30 second post purge:** Increases life of heat exchanger.
- **Hot surface igniter:** Innovative application of a silicon nitride igniter. Utilizes proven Smartlite® technology.
- **Color coded wire harness:** Designed to fit the components, all with quick-connect fittings for ease of service and replacement.
- **High static blowers:** All models equipped with high static blowers.
- **60 second cooling cycle blower-off delay (TDR):** increases cooling performance when matched with a Nortek Global HVAC coil.
- **Flexible category I venting system:** May be vented with dedicated venting system or common vented with other category one appliances.
- **High efficiency blower kits:** Maximize efficiencies and provide better temperature control, humidity control and air distribution.
- **Multi-speed direct drive blower:** Energy-efficient, brushless DC (ECM). Designed to give a wide range of cooling capacities. Switches on PCB, provide ultra easy motor speed selection.
- **LP convertible:** Simple burner orifice and regulator spring change for ease of convertibility.
- **Diagnostic lights for easy troubleshooting without counting flashes:** Dedicated light for flame signal strength and 2 lights in combination to indicate all other fault codes with easy to recognize states without counting flashes.
- **Integrated control board:** Incorporates connections for electronic air cleaner and humidifier. Ergonomically located for ease of service.
- **Two piece door design:** Enhances furnace appearance and uses captured screws to prevent losing door screws.
- **Blower Compartment:** Insulated for ultra quiet operation.
- **Furnace Air Leakage:** These furnaces comply with Energy Star cabinet air leakage requirement of less than or equal to 2%. Keep the conditioned air flowing to where it's needed.

# GAS FURNACE COMPONENTS



1. Blower Assembly

2. Blower Door Switch

3. Burner Assembly

4. Control Board

5. Flame Sensor

6. Gas Manifold

7. Gas Valve

8. Igniter

9. Inducer

10. Insulated Combustion Tube  
(Downflow Models)

11. Low Voltage Transformer

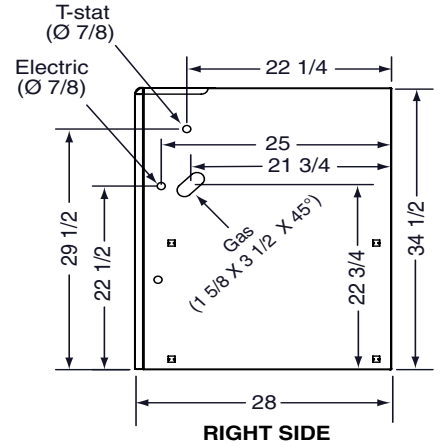
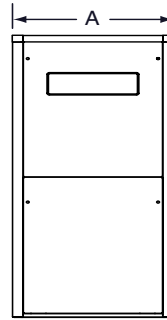
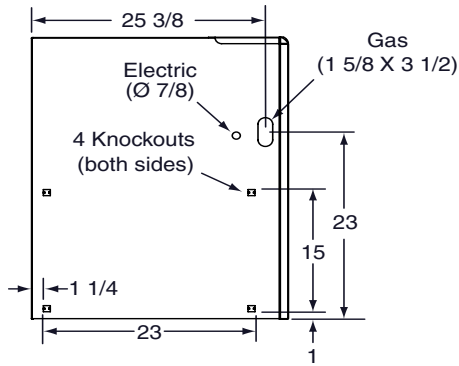
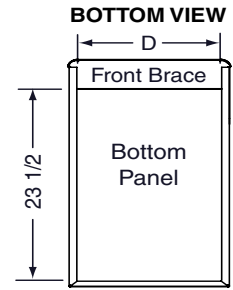
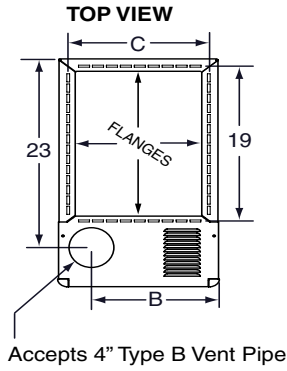
12. Main Air Limit Switch

13. Pressure Switch

14. Roll-Out Switch(s)

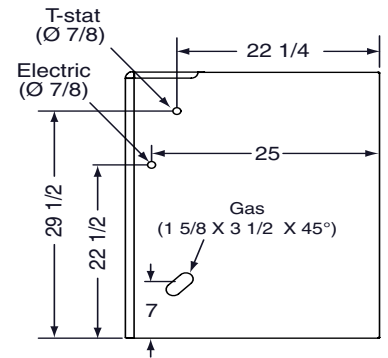
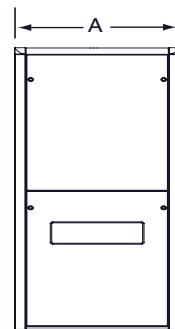
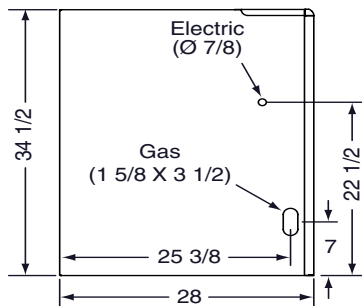
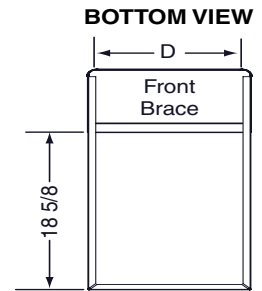
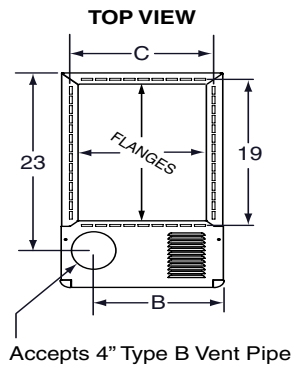
# DIMENSIONS

| *SA<br>Model #'s | Dimension<br>"A" | Dimension<br>"B" | Dimension<br>"C" | Dimension<br>"D" |
|------------------|------------------|------------------|------------------|------------------|
| 045-23A          | 14 1/4           | 10 3/4           | 12 5/8           | 12 7/8           |
| 054-23A          |                  |                  |                  |                  |
| 072-24B          |                  |                  |                  |                  |
| 090-24B          | 17 1/2           | 11 3/4           | 15 7/8           | 16 1/8           |
| 072-35C          |                  |                  |                  |                  |
| 090-35C          |                  |                  |                  |                  |
| 108-35C          | 21               | 14               | 19 3/8           | 19 7/8           |
| 126-45D          | 24 1/2           | 15 1/4           | 22 7/8           | 23 1/8           |



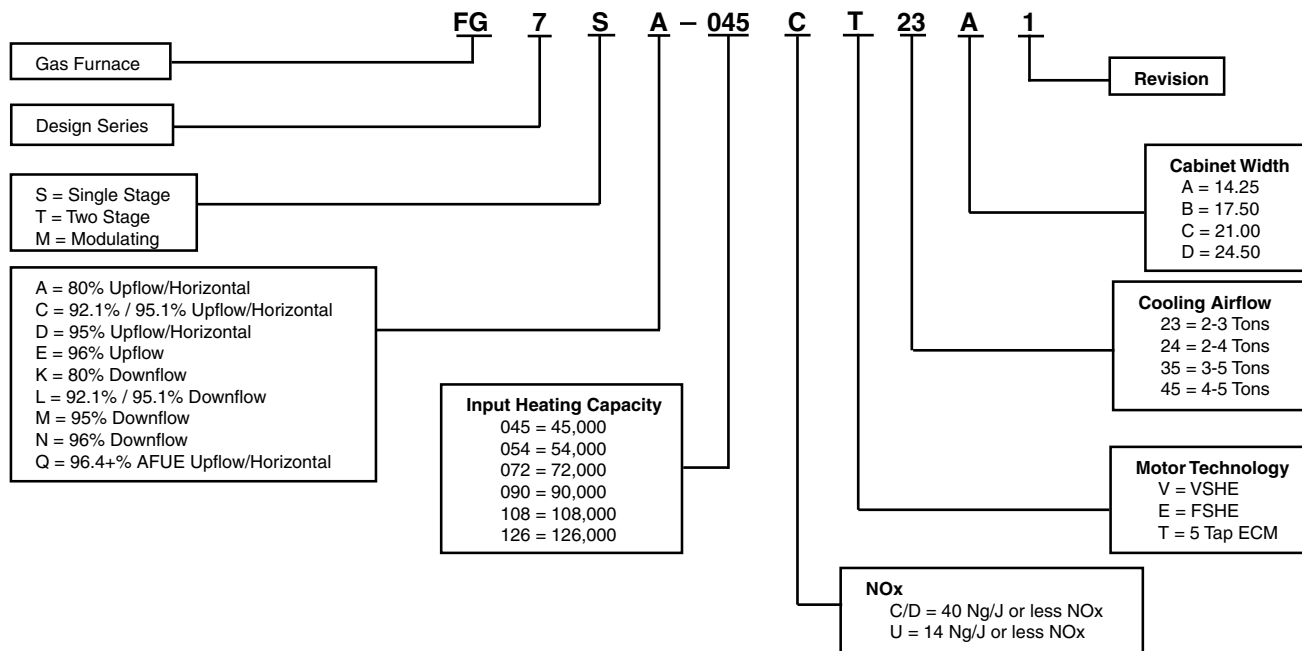
**FG7SA Single Stage Upflow/Horizontal Series**

| *SK<br>Model #'s | Dimension<br>"A" | Dimension<br>"B" | Dimension<br>"C" | Dimension<br>"D" |
|------------------|------------------|------------------|------------------|------------------|
| 054-23A          | 14 1/4           | 10 3/4           | 12 5/8           | 12 7/8           |
| 072-24B          |                  |                  |                  |                  |
| 090-24B          |                  |                  |                  |                  |
| 108-35C          | 21               | 14               | 19 3/8           | 19 7/8           |
| 126-45D          | 24 1/2           | 15 1/4           | 22 7/8           | 23 1/8           |



**FG7SK Single Stage Downflow Series**

## MODEL IDENTIFICATION CODE



## SPECIFICATIONS

| FG7SA MODEL NUMBERS         | -045-T23A1    | -054-T23A1    | -072-T24B1    | -072-T35C1  | -090-T24B1    |
|-----------------------------|---------------|---------------|---------------|-------------|---------------|
| Input - Btuh (a)            | 45000         | 52000         | 70000         | 70000       | 90000         |
| Heating Capacity - Btuh     | 36000         | 42000         | 56000         | 56000       | 72000         |
| <b>AFUE</b>                 | 80.0          | 80.0          | 80.0          | 80.0        | 80.0          |
| Motor H.P. - Speed - Type   | 1/2 - 5 - ECM | 1/2 - 5 - ECM | 3/4 - 5 - ECM | 1 - 5 - ECM | 3/4 - 5 - ECM |
| Motor FLA                   | 6.4           | 6.4           | 8.8           | 11.5        | 8.8           |
| Rated Ext. SP - In. W.C.    | 0.5           | 0.5           | 0.5           | 0.5         | 0.5           |
| Temperature Rise Range - °F | 30-60         | 30-60         | 35-65         | 35-65       | 35-65         |
| Shipping Weights            | 95 lb         | 95 lb         | 110 lb        | 115 lb      | 115 lb        |
| SKU                         | 1025482F      | 1025483F      | 1025481F      | 1025485F    | 1025484F      |

| FG7SK MODEL NUMBERS         | -072-T24B1    | -090-T24B1    |
|-----------------------------|---------------|---------------|
| Input - Btuh (a)            | 72000         | 90000         |
| Heating Capacity - Btuh     | 58000         | 72000         |
| <b>AFUE</b>                 | 80.0          | 80.0          |
| Motor H.P. - Speed - Type   | 3/4 - 5 - ECM | 3/4 - 5 - ECM |
| Motor FLA                   | 8.8           | 8.8           |
| Rated Ext. SP - In. W.C.    | 0.5           | 0.5           |
| Temperature Rise Range - °F | 35-65         | 35-65         |
| Shipping Weights            | 110 lb        | 115 lb        |
| SKU                         | 1025490F      | 1025491F      |

# ACCESSORIES

| FG7S (A, K) KITS   |         |
|--|---------|
| Description  | SKU     |
| "A" Cabinet variable speed, high efficiency, VSHE              | 904876  |
| "B" Cabinet variable speed, high efficiency, VSHE              | 904877  |
| "C" Cabinet variable speed, high efficiency, VSHE              | 904878  |
| "D" Cabinet variable speed, high efficiency, VSHE              | 904879  |
| "A" Cabinet downflow sub base kit                              | 902974  |
| "B", "C", "D" Cabinet downflow sub base kit                    | 904911  |
| U.S. LP Conversion kit (0 to 10,000 ft.) and High Altitude LP  | 905028  |
| Canada LP Conversion kit (0 to 4,500 ft.) and High Altitude LP | 905029  |
| Side return filter kit   | 541036  |
| Furnace Twinning Kit   | 1010035 |







### GENERAL TERMS OF LIMITED WARRANTY

Nortek Global HVAC, LLC will furnish a replacement for any part of this product which fails in normal use and service within the terms and conditions of the warranty.

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the Nortek Global HVAC, LLC warranty department for a copy.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer. Specifications and illustrations subject to change without notice and without incurring obligations. Printed in U.S.A (06/2019)