QUICK REFERENCE GUIDE

96%TWO STAGE MULTI-POSITION RESIDENTAL GAS FURNACES (33” TALL)

NOTES:

1. If the furnace is equipped with NOx screens and is to be used with LP (propane) gas, the screens must be removed prior to start-up.
2. Drip leg in the gas line must be installed.
3. The furnace controls require correct polarity on the power supply and a proper ground.
4. Y & G must be connected to the control board for cooling operation.
5. External filters are required on all configurations.
6. Electrical or gas entry is available on both casing sides.
7. To measure total static pressure, add supply duct pressure to the return duct pressure, add pressure drop across the ‘A’ coil, and add pressure drop across the filter. Ignore negative signs on the readings.
8. Inlet gas pressure should be 7” w.c. for natural gas and 11” w.c. for propane. Nominal manifold gas pressure is 3.5” w.c. for natural gas and 10” w.c. for propane at max. input.
9. For downflow application the vent blower must be rotated 90 left or right as shown.

Models	Airflow CFM (Bottom Return without Filters) 0.5" ESP (Nominal)†				Minimum Wire Size awg @ 75' One-Way	Maximum Over Current Protection
	*D-A**	*C-A**	*B-A**	*A-B**		
TM9V060B12MP11	600	690	1000	1305	14	15
TM9V080B12MP11	600	680	1000	1290	14	15
TM9V080C16MP11	850	905	1175	1670	14	15
TM9V100C16MP11	870	910	1160	1655	14	15
TM9V100C20MP11	960	1155	1605	2215	12	20
TM9V120D20MP11	960	1160	1595	2180	12	20

Models	Input Rate		Total Unit Amps	Air Temp. Rise Max Input °F	Air Temp. Rise Min Input °F	Time For 1 ft^3 Natural Gas (1030 Btu/Ft^3) Seconds (On Max. Rate)
	Max	Min				
TM9V060B12MP11	60,000	21,000	9	35 - 65	35 - 65	62
TM9V080B12MP11	80,000	28,000	9	35 - 65	30 - 60	46
TM9V080C16MP11	80,000	28,000	12	35 - 65	35 - 65	46
TM9V100C16MP11	100,000	35,000	12	35 - 65	30 - 60	37
TM9V100C20MP11	100,000	35,000	14	35 - 65	35 - 65	37
TM9V120D20MP11	120,000	42,000	14	35 - 65	35 - 65	31

† Other airflows are available. see Tech Guide for all CFM options.
* Cool Tap.
** Adjustment Tap.

LED INDICATOR

Slow Green Flash - Normal operation in standby mode.

Slow Amber Flash - Normal operation with call for cooling.

Two Amber Flashes - Normal operation with call for heat.

Three Amber Flashes - Normal operation, burner is on at end of thermostat cycle.

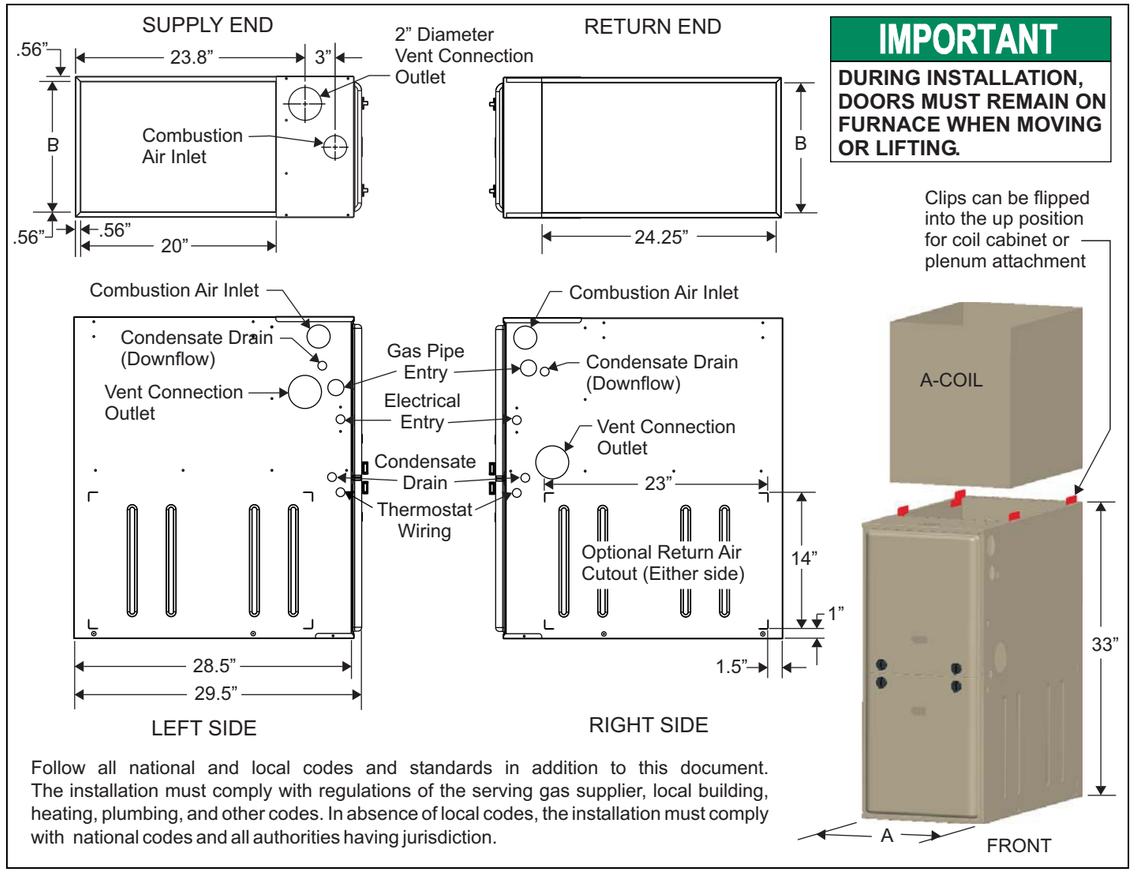
Six Amber Flashes - Normal operation with call for heat pump heating.

Any Red Flash - Fault condition. **NOTE:** 4 or 5 flashes may indicate a blown fuse on the circuit board.

438336-URG-A-0209
Supersedes: Nothing

Johnson Controls Unitary Products
5005 York Drive
Norman, OK 73069

This document does not replace the installation instructions, which must be referred to for detailed information.



Follow all national and local codes and standards in addition to this document. The installation must comply with regulations of the serving gas supplier, local building, heating, plumbing, and other codes. In absence of local codes, the installation must comply with national codes and all authorities having jurisdiction.

CLEARANCES

Application	Upflow	Downflow	Horizontal
Top	1"	0"	0"
Vent	0"	0"	0"
Rear	0"	0"	0"
Side	0"	0"	1"
Front*	0"	0"	0"
Floor	Combustible	Combustible[1]	Combustible
Closet	Yes	Yes	Yes
Line Contact	No	No	Yes

1. For combustible floors only when used with special sub-base.

* 24" clearance in front and 18" on side recommended for service access.

All furnaces approved for alcove and attic installation.

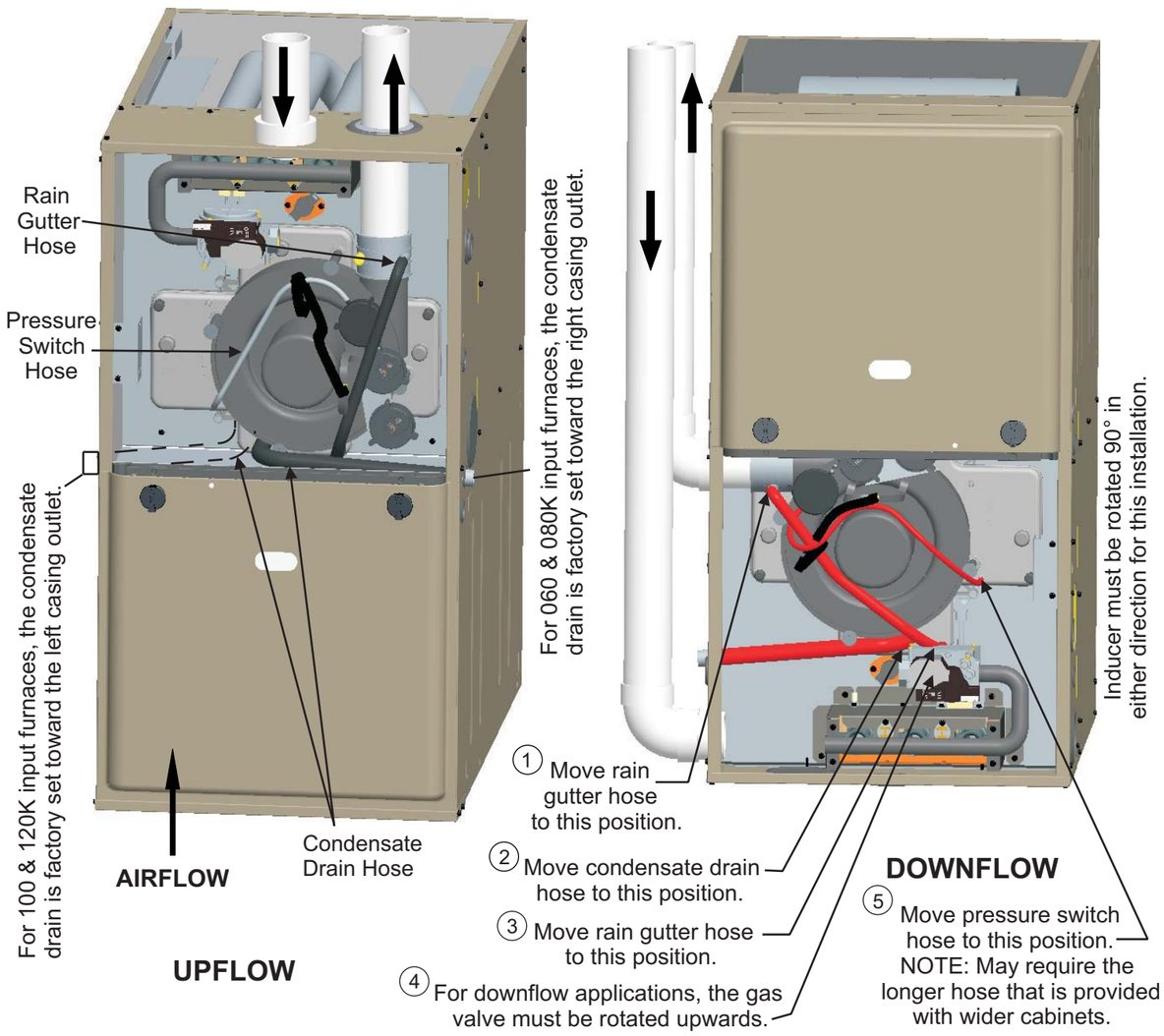
DIMENSIONS

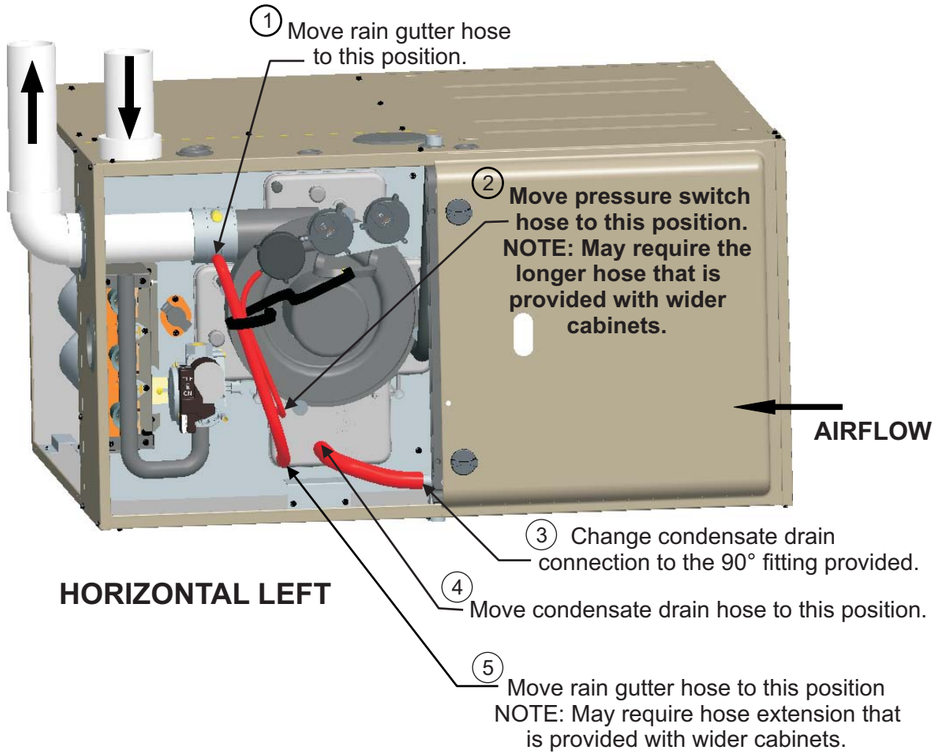
Cabinet Size	A (in)	B (in)
All 'B' Cabinet Furnaces	17-1/2"	16-3/8"
All 'C' Cabinet Furnaces	21"	19-7/8"
All 'D' Cabinet Furnaces	24-1/2"	23-3/8"

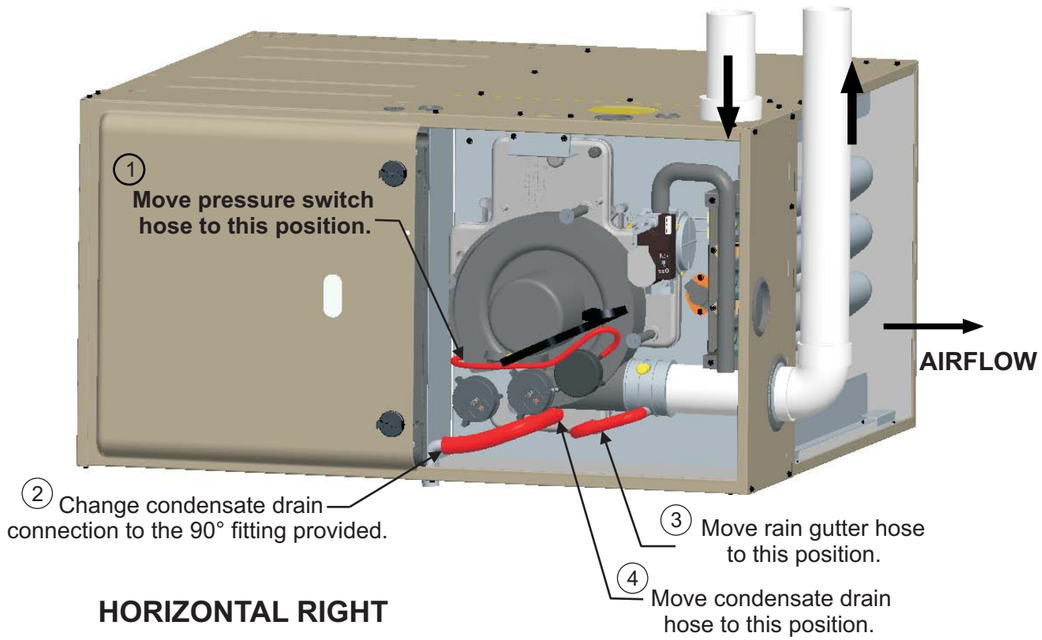
MOST COMMON INSTALLATION CONFIGURATIONS (MORE OPTIONS AVAILABLE WITH INDUCER ROTATION, WHICH IS COVERED IN THE INSTALLATION MANUAL)

MULTI-POSITION CONFIGURATION INFORMATION:

Ensure that all PVC venting has at least 1/4” per foot slope towards the furnace.
Furnace is multi-position and may be installed in any of the configurations shown.
The furnace condensate pan is self priming and contains an internal trap.
Do not install an external condensate trap.
When drain hose routing changes are required (shown in red), be sure to cap all unused openings.
If rerouting hoses - excess length should be cut off so that no sagging loops will collect and hold condensate, which will cause the furnace to not operate.







In upflow and downflow installation - Condensate drain hose may go out either side.