



BROAN FG7T Two Stage Fixed Speed High Efficiency Upflow/Horizontal And Downflow Gas Furance Owner's Manual

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BROAN FG7T Two Stage Fixed Speed High Efficiency Upflow/Horizontal And Downflow Gas Furance Owner's Manual



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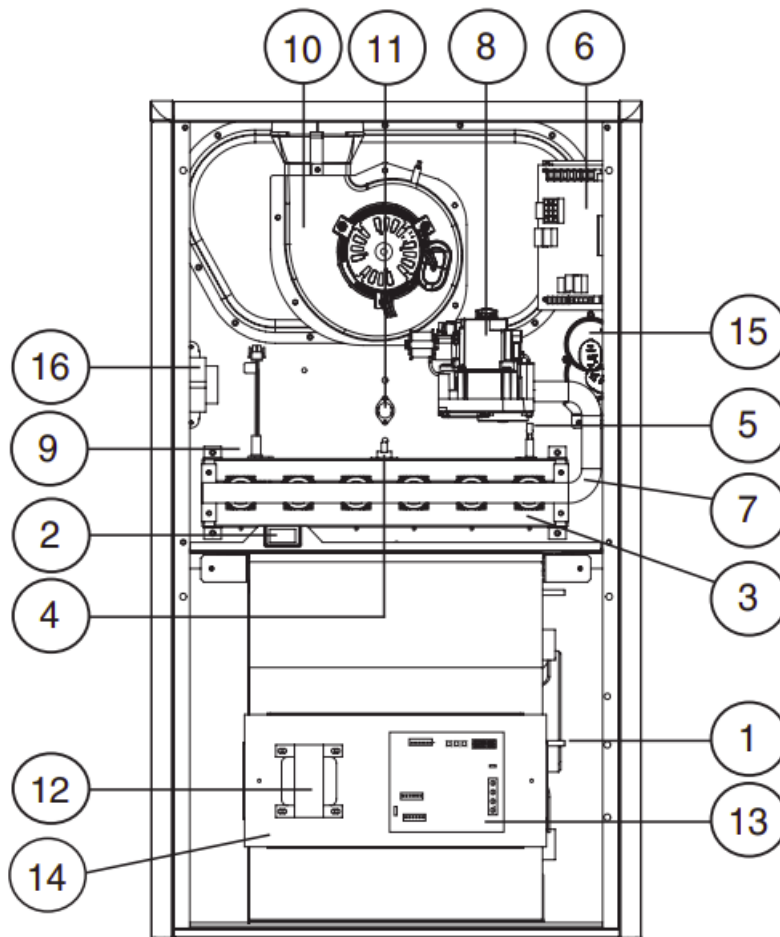
7.1 References

8 Related Posts

FEATURES and BENEFITS

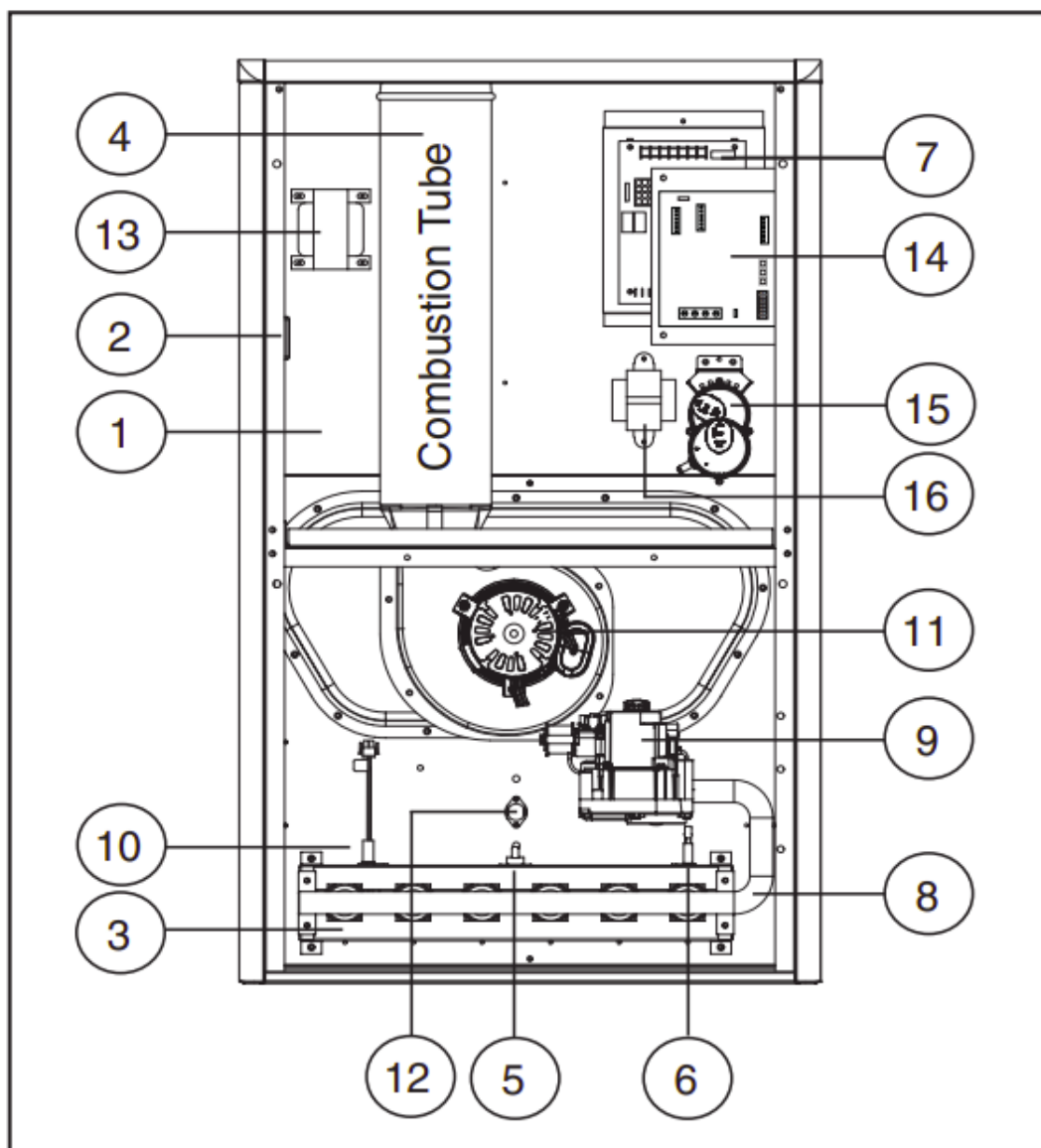
- **I SEER:** Energy efficient brushless DC (ECM) motor
- **gives up to 1 SEER point efficiency gain in cooling 100% fired and tested:** All units and each component are tested on the manufacturing line.
- **Best packaging in the industry:** Unique corner post design assures product will arrive to the 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 Smartite 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. 90 second cooling cycle blower-off delay (TDR): Increases cooling performance when matched with a NORDYNE coil.
- **Flexible category I venting system:** May be vented with dedicated venting system or common vented with other category one appliances.
- **Variable speed blower kit:** Upgradable to full variable speed with kit.
- **LP convertible:** Simple burner tube 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, humidifier and wiring. Two piece door design: Enhances furnace appearance and uses captive screws to prevent losing door screws.
- **Blower Compartment:** Insulated for ultra quiet operation.
- **Stage Inducer:** Optimizes efficiency on first stage heat and reduces sound levels

GAS FURNACE COMPONENTS



1. Blower Assembly
2. Blower Door Switch
3. Burner Assembly
4. Flame Roll-Out Switch
5. Flame Sensor
6. Furnace Control Board
7. Gas Manifold
8. Gas Valve
9. Igniter
10. Inducer Assembly
11. Main Air Limit Switch
12. Motor Choke (3/4 and 1HP only)
13. Motor Control Board
14. Motor Control Box
15. Pressure Switch(s)
16. Transformer

Upflow/Horizontal Gas Furnace

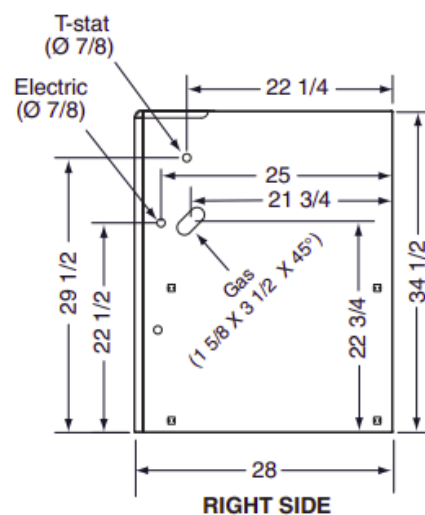
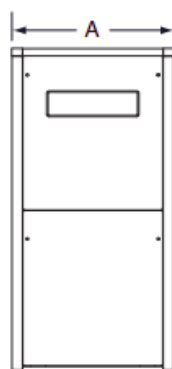
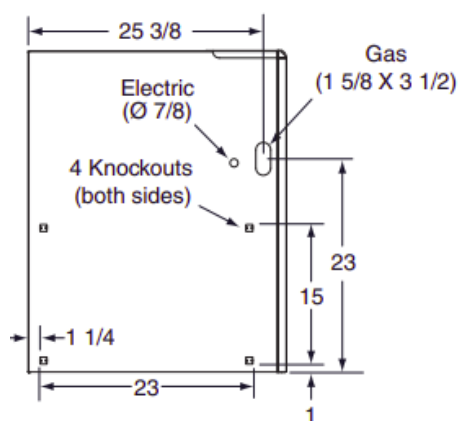
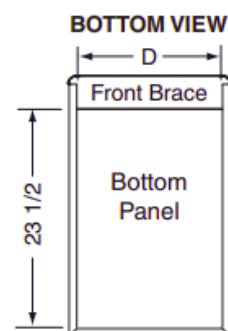
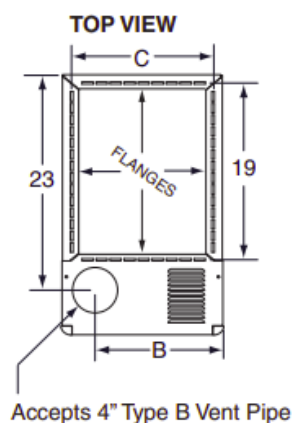


1. Blower Assembly
2. Blower Door Switch
3. Burner Assembly
4. Combustion Tube
5. Flame Roll-Out Switch
6. Flame Sensor
7. Furnace Control Board
8. Gas Manifold
9. Gas Valve
10. Igniter
11. Inducer Assembly
12. Main Air Limit Switch
13. Motor Choke (3/4 and 1HP only)
14. Motor Control Board
15. Pressure Switch(s)
16. Transformer

Downflow Gas Furnace

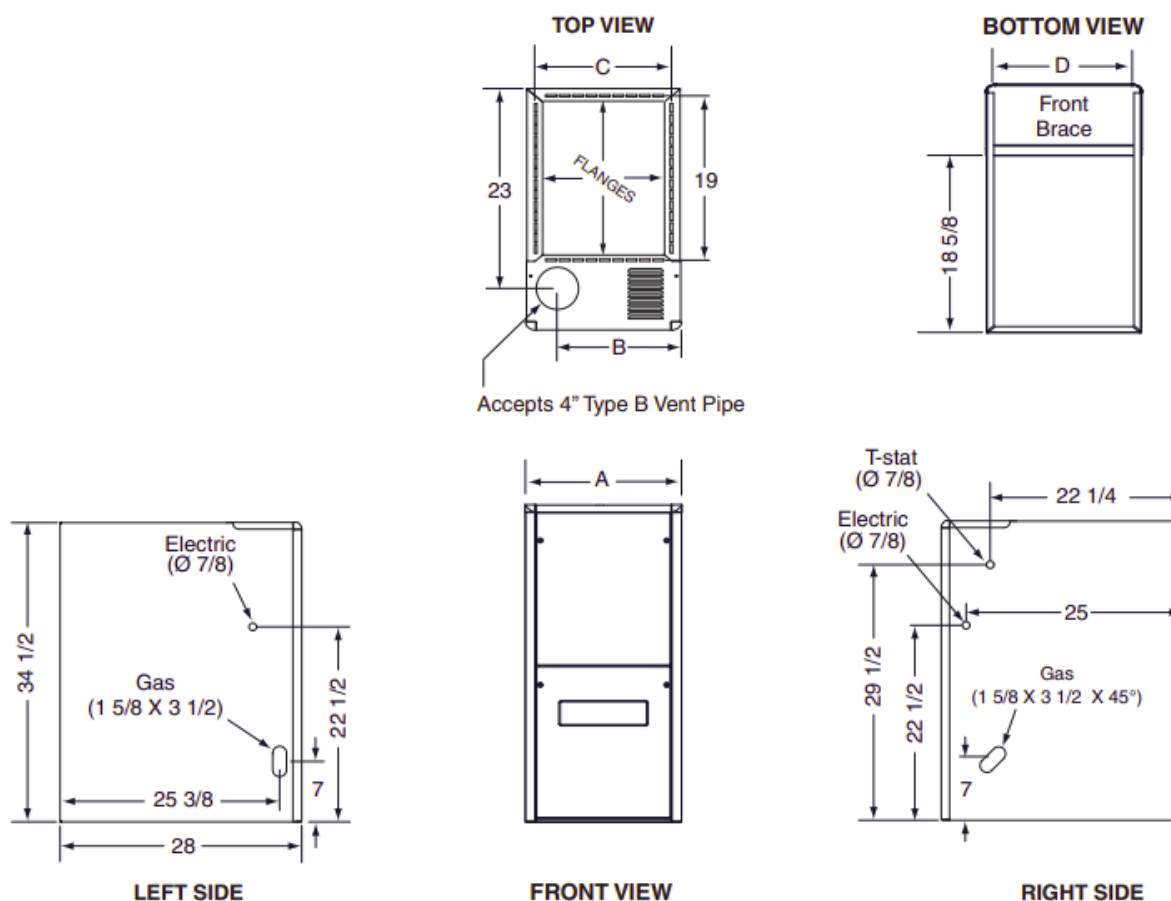
DIMENSIONS

*TA Model #'s	Dimension "A"	Dimension "B"	Dimension "C"	Dimension "D"
060-23A1	14 ¼	10 ¾	12 ⅝	12 ⅞
080-24B1	17 ½	11 ¾	15 ⅞	16 ⅞
100-24B1				
100-35C1	21	14	19 ¾	19 ⅝
120-35C1				
140-45\$1	24 ½	15 ¼	22 ⅞	23 ⅞



FG7TA 80+ High Efficiency Upflow/Horizontal Series

*TK Model #'s	Dimension "A"	Dimension "B"	Dimension "C"	Dimension "D"
060-23A1	14 1/4	10 3/4	12 5/8	12 7/8
080-24B1	17 1/2	11 3/4	15 7/8	16 1/8
100-24B1				
100-35C1	21	14	19 3/8	19 5/8
120-35C1				
140-45\$1	24 1/2	15 1/4	22 7/8	23 1/8



FG7TK 80+ High Efficiency Downflow Series|

BLOWER PERFORMANCE – FG7TA/TK

FG7TA/TK – 80% AFUE, Two Stage Gas Furnace										
Model Number	Heating Input (Bt)	Motor Switch Setting	External Static Pressure (in.w.c.)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8

[illegible]

*4A/4+-080(C)-*B1	800 00	1	0	1	0	94 0	63	89 0	—	84 5	—	79 5	—	75 0	—	70 0	—				
		0	1	1	0	99 0	60	94 5	6 3	90 5	6 5	86 0	—	82 0	—	77 5	—	73 5	—	69 0	—
		1	1	1	0	10 55	56	10 15	5 8	97 0	6 1	93 0	6 4	89 0	—	84 5	—	80 5	—	76 0	—
		0	0	0	1	11 35	52	10 95	5 4	10 55	5 6	10 10	5 9	96 0	62	93 0	6 4	89 0	—	85 0	—
		1	0	0	1	11 85	50	11 45	5 2	11 05	5 4	10 65	5 6	10 30	58	99 0	6 0	95 0	6 2	91 0	65
		0	1	0	1	12 50	47	12 10	4 9	11 70	5 1	11 35	5 2	10 95	54	10 55	5 6	10 20	5 8	98 0	60
		1	1	0	1	12 90	46	12 55	4 7	12 20	4 9	11 80	5 0	11 45	52	11 10	5 3	10 75	5 5	10 40	57
		0	0	1	1	13 15	45	12 75	4 6	12 40	4 8	12 00	4 9	11 60	51	11 20	5 3	10 85	5 5	10 45	57
		1	0	1	1	13 50	44	13 15	4 5	12 80	4 6	12 45	4 8	12 05	49	11 70	5 1	11 35	5 2	11 00	54
		0	1	1	1	13 90	43	13 50	4 4	13 15	4 5	12 75	4 6	12 40	48	12 00	4 9	11 60	5 1	11 25	53
		1	1	1	1	14 20	42	13 80	4 3	13 45	4 4	13 10	4 5	12 70	47	12 35	4 8	12 00	4 9	11 60	51

Note

1. Motor Switch Ich Settings are for heating speeds using HEAT switches 1.. 2, 3, & 4 and cooling speeds using COOL switches 5, 6, 7, & 8
2. Two openings are required for airflows above 1600 CFM if the filter(s) is (are) adjacent to the furnace.
3. Data is shown without filter.
4. Temperature rises in the table are approximate. Actual temperature rises may vary.
5. Temperature rises that are shaded in grey are not recommended.

BLOWER PERFORMANCE – FG7TA/TK Continued

G7TA/TK – 80% AFUE, Two Stage Gas Furnace																					
Model Number	Heat Input (Btu/h)	Motor Switch Setting				External Static Pressure (in.w.c.)															
						0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
		1 / 5	2 / 6	3 / 7	4 / 8	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise	CFM	Rise
		0	0	0	0	905	–	890	–	805	–	780	–								

*4A10 0(C)-*B1	10 0000	1	0	0	0	98 0	—	93 0	—	90 0	—	83 5	—	82 0	—	80 0	—	71 5	—	67 0	—
		0	1	0	0	10 95	—	10 15	—	98 0	—	91 5	—	89 5	—	87 0	—	81 0	—	76 5	—
		1	1	0	0	11 60	64	11 00	—	10 65	—	10 35	—	99 5	—	94 0	—	89 5	—	86 5	—
		0	0	1	0	12 30	60	11 95	6 2	11 70	—	11 10	—	10 75	—	10 60	—	99 5	—	97 0	—
		1	0	1	0	13 15	56	12 75	5 8	12 40	6 0	11 95	6 2	11 60	64	11 40	6 5	11 15	—	10 75	—
		0	1	1	0	13 45	55	13 10	5 7	12 80	5 8	12 50	5 9	12 20	61	11 90	6 2	11 40	6 5	11 15	—
		1	1	1	0	14 45	51	13 90	5 3	13 50	5 5	13 15	5 6	12 80	58	12 50	5 9	12 30	6 0	11 85	63
		0	0	0	1	14 90	50	14 30	5 2	14 20	5 2	13 80	5 4	13 40	55	13 10	5 7	12 80	5 8	12 75	58
		1	0	0	1	15 50	48	15 10	4 9	14 75	5 0	14 50	5 1	14 20	52	13 75	5 4	13 40	5 5	13 25	56
		0	1	0	1	16 00	46	12 70	5 8	15 40	4 8	15 00	4 9	14 75	50	14 45	5 1	14 25	5 2	13 85	53
		1	1	0	1	16 40	45	16 05	4 6	15 70	4 7	15 50	4 8	15 25	49	14 90	5 0	14 60	5 1	14 30	52
		0	0	1	1	16 90	44	16 65	4 4	16 30	4 5	16 00	4 6	15 70	47	15 50	4 8	15 15	4 9	14 90	50
		1	0	1	1	17 55	42	17 30	4 3	16 80	4 4	16 60	4 5	16 40	45	16 10	4 6	15 75	4 7	15 50	48
		0	1	1	1	18 05	41	17 70	4 2	17 40	4 3	17 15	4 3	16 90	44	16 55	4 5	16 45	4 5	16 05	46
		1	1	1	1	18 60	40	18 25	4 1	17 90	4 1	17 65	4 2	17 45	42	17 10	4 3	16 95	4 4	16 60	45
		0	0	0	0	11 25	66	10 40	—	96 0	—										
		1	0	0	0	12 05	61	11 20	—	10 40	—	96 0	—								
		0	1	0	0	13 05	57	12 25	6 0	11 50	6 4	10 70	—	99 5	—	91 5	—				
		1	1	0	0	14 30	52	13 50	5 5	12 70	5 8	11 90	6 2	11 10	—	10 30	—	95 0	—	86 5	—
		0	0	1	0	15 25	49	14 50	5 1	13 75	5 4	13 00	5 7	12 25	60	11 50	6 4	10 75	—	10 00	—
		1	0	1	0	16 20	46	15 40	4 8	14 65	5 1	13 90	5 3	13 15	56	12 40	6 0	11 65	6 4	10 90	—

*4A/4 +-100(C)-*C 1	10 0000	0	1	1	0	16 95	44	16 20	4 6	15 45	4 8	14 65	5 1	13 90	53	13 15	5 6	12 35	6 0	11 60	64
		1	1	1	0	17 70	42	17 00	4 4	16 30	4 5	15 55	4 8	14 85	50	14 10	5 3	13 40	5 5	12 65	59
		0	0	0	1	18 75	40	18 05	4 1	17 30	4 3	16 55	4 5	15 80	47	15 10	4 9	14 35	5 2	13 40	55
		1	0	0	1	19 05	39	18 40	4 0	17 75	4 2	17 10	4 3	16 40	45	15 75	4 7	15 10	4 9	14 45	51
		0	1	0	1	19 80	37	19 10	3 9	18 45	4 0	17 80	4 2	17 15	43	16 50	4 5	15 80	4 7	15 15	49
		1	1	0	1	20 25	37	19 60	3 8	18 95	3 9	18 30	4 0	17 65	42	17 00	4 4	16 35	4 5	15 70	47
		0	0	1	1	20 85	36	20 25	3 7	19 60	3 8	19 00	3 9	18 40	40	17 75	4 2	17 15	4 3	16 55	45
		1	0	1	1	21 35	35	20 70	3 6	20 10	3 7	19 45	3 8	18 80	39	18 15	4 1	17 50	4 2	16 85	44
		0	1	1	1	22 00	34	21 45	3 5	20 90	3 5	20 35	3 6	19 80	37	19 25	3 8	18 70	4 0	18 20	41
		1	1	1	1	22 80	32	22 25	2 7	21 70	3 4	21 15	3 5	20 65	22	20 10	3 7	19 55	3 8	19 00	39

Notes:

BLOWER PERFORMANCE – FG7TA/TK Continued

FG7TA/TK – 80% AFUE, Two Stage Gas Furnace																					
Model Number	Heating Input (Btu/h)	Motor Switch Setting				External Static Pressure (in.w.c.)															
						0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
		1 / 5	2 / 6	3 / 7	4 / 8	C F M	Rise	C F M	Rise	C F M	Rise	C F M	Rise	C F M	Rise	C F M	Rise	C F M	Rise		
		0	0	0	0	11 25	–	10 40													
		1	0	0	0	12 05	–	11 20	–	10 40	–										

*4A/4+ -120(C)-*C1	12 000 0	0	1	0	0	13 05	—	12 25	—	11 50	—	10 70	—								
		1	1	0	0	14 30	62	13 50	—	12 70	—	11 90	—	11 10	—	10 30	—				
		0	0	1	0	15 25	58	14 50	6 1	13 75	6 5	13 00	—	12 25	—	11 50	—	10 75	—	10 00	—
		1	0	1	0	16 20	55	15 40	5 8	14 65	6 1	13 90	6 4	13 15	—	12 40	—	11 65	—	10 90	—
		0	1	1	0	16 95	52	16 20	5 5	15 45	5 8	14 65	6 1	13 90	64	13 15	—	12 35	—	11 60	—
		1	1	1	0	17 70	50	17 00	5 2	16 30	5 5	15 55	5 7	14 85	60	14 10	6 3	13 40	6 6	12 65	—
		0	0	0	1	18 75	47	18 05	4 9	17 30	5 1	16 55	5 4	15 80	56	15 10	5 9	14 35	6 2	13 40	66
		1	0	0	1	19 05	47	18 40	4 8	17 75	5 0	17 10	5 2	16 40	54	15 75	5 6	15 10	5 9	14 45	62
		0	1	0	1	19 80	45	19 10	4 7	18 45	4 8	17 80	5 0	17 15	52	16 50	5 4	15 80	5 6	15 15	59
		1	1	0	1	20 25	44	19 60	4 5	18 95	4 7	18 30	4 9	17 65	50	17 00	5 2	16 35	5 4	15 70	57
		0	0	1	1	20 85	43	20 25	4 4	19 60	4 5	19 00	4 7	18 40	48	17 75	5 0	17 15	5 2	16 55	54
		1	0	1	1	21 35	42	20 70	4 3	20 10	4 4	19 45	4 6	18 80	47	18 15	4 9	17 50	5 1	16 85	53
		0	1	1	1	22 00	40	21 45	4 1	20 90	4 3	20 35	4 4	19 80	45	19 25	4 6	18 70	4 8	18 20	49
		1	1	1	1	22 80	39	22 25	4 0	21 70	4 1	21 15	4 2	20 65	43	20 10	4 4	19 55	4 5	19 00	47
		0	0	0	0	13 95	—	13 50	—	13 05	—	12 60	—	12 10	—	11 65	—				
		1	0	0	0	14 65	—	14 20	—	13 75	—	13 30	—	12 90	—	12 45	—	12 00	—		
		0	1	0	0	15 55	67	15 10	6 9	14 70	—	14 25	—	13 80	—	13 40	—	12 95	—	12 50	—
		1	1	0	0	16 25	64	15 85	6 5	15 40	6 7	15 00	6 9	14 60	—	14 15	—	13 75	—	13 35	—
		0	0	1	0	16 90	61	16 50	6 3	16 10	6 4	15 70	6 6	15 30	68	14 85	7 0	14 45	—	14 05	—
		1	0	1	0	17 60	59	17 15	6 0	16 70	6 2	16 25	6 4	15 75	66	15 30	6 8	14 85	7 0	14 40	—
		0	1	1	0	18 35	57	17 90	5 8	17 45	5 9	16 95	6 1	16 50	63	16 05	6 5	15 55	6 7	15 10	69

4A/4+ -140(C)-\$1	14 000 0	1	1	1	0	18 85	55	18 40	5 6	17 90	5 8	17 45	5 9	17 00	61	16 55	6 3	16 10	6 4	15 65	66
		0	0	0	1	19 45	53	19 00	5 5	18 50	5 6	18 05	5 7	17 60	59	17 10	6 1	16 65	6 2	16 20	64
		1	0	0	1	19 50	53	19 05	5 4	18 60	5 6	18 20	5 7	17 75	58	17 35	6 0	16 90	6 1	16 50	63
		0	1	0	1	20 75	50	20 30	5 1	19 90	5 2	19 45	5 3	19 00	55	18 55	5 6	18 10	5 7	17 70	59
		1	1	0	1	21 25	49	20 85	5 0	20 40	5 1	20 00	5 2	19 55	53	19 10	5 4	18 70	5 5	18 25	57
		0	0	1	1	21 70	48	21 30	4 9	20 90	5 0	20 45	5 1	20 05	52	19 65	5 3	19 25	5 4	18 80	55
		1	0	1	1	22 15	47	21 80	4 8	21 40	4 8	21 05	4 9	20 70	50	20 35	5 1	20 00	5 2	19 65	53
		0	1	1	1									22 25	47	21 65	4 8	21 00	4 9	20 40	51
		1	1	1	1											21 70	4 8	21 20	4 9	20 65	50

Note

1. Motor Switch Settings are for heating speeds using HEAT switches 1, 2, 3, & 4 and cooling speeds using COOL switches 5. 6. 7.48:
2. Two openings are required for airflows above 1600 CFM if the filter(s) is (are) adjacent to the furnace.
3. Data is shown without filter.
4. Temperature rises that are shaded in grey are not recommended.
5. Temperature rises in the table are approximate. Actual temperature rises may vary

MODEL IDENTIFICATION CODE

SPECIFICATIONS

FG7TA/TKMODEL NUMBER	060C-23A1	080C-24B1	100C-24B1	100C-35C1	120C-35C1	140C-45D1
INPUT – BTUH (A)	60,000 / 39,000	80,000 / 52,000	100,000 / 65,000	100,000 / 65,000	120,000 / 78,000	140,000 / 91,000
EATING CAPACITY – BTUH	48,000 / 31,200	64,000 / 41,600	80,000 / 52,000	80,000 / 52,000	96,000 / 62,400	112,000 / 72,800
AFUE	80.0	80.0	80.0	80.0	80.0	80.0
BLOWER \$ X 7	10 X 6	11 X 8	11 X 8	11 X 10	11 X 10	11 X 10
MOTOR (.0. – 3SPEED – 4YPE	1/2 – BL\$C	1/2 – BL\$C	3/4 – BL\$C	3/4 – BL\$C	3/4 – BL\$C	1 – BL\$C
MOTOR &LA	6.2	6.2	8.7	8.7	8.7	11.7
2ATED EXT. 30 –)N. 7. C.	0.5	0.5	0.5	0.5	0.5	0.5
4EMPERATURE 2ISE 2ANGE – Ž&	25-55	30-60	30-60	35-65	35-65	40-70
3HIPPING 7EIGHTS	115LBS	110LBS	120LBS	125LBS	135LBS	155LBS

ACCESSORIES

FG7TA/TK KITS	
Description	SKU
&IXED SPEED -TO- VARIABLE SPEED	904880
“A” CABINET DOWNfLOW SUB BASE KIT	902974
“B”, “C”, “\$” CABINET DOWNfLOW SUB BASE KIT	904911
5.3. L0 CONVERSION KIT (0 TO 10,000 FT.)	904914
CANADA L0 CONVERSION KIT (0 TO 4,500 FT.)	904915
BOTTOM RETURN fiLTER 20 PER BOX, “A” CABINET	903088
BOTTOM RETURN fiLTER 20 PER BOX, “B” CABINET	904916
BOTTOM RETURN fiLTER 20 PER BOX, “C” CABINET	904917
BOTTOM RETURN fiLTER 20 PER BOX, “\$” CABINET	904918
3IDE RETURN fiLTER KIT	541036

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 (10/2015)

www.broanhwac.net Brand trademark used under sounaa Nortek Global HVAC, LLC. All Rights Reserved. 819C-0614 (Replaces 819C-0210)



Documents / Resources

	BROAN FG7T Two Stage Fixed Speed High Efficiency Upflow/Horizontal And Downflow Gas Furnace [pdf] Owner's Manual FG7T Two Stage Fixed Speed High Efficiency Upflow Horizontal And Downflow Gas Furance, F G7T, Two Stage Fixed Speed High Efficiency Upflow Horizontal And Downflow Gas Furance, Fi xed Speed High Efficiency Upflow Horizontal And Downflow Gas Furance, High Efficiency Upflo w Horizontal And Downflow Gas Furance, Upflow Horizontal And Downflow Gas Furance, Horiz ontal And Downflow Gas Furance, Downflow Gas Furance, Gas Furance, Furance
	BROAN FG7T Two Stage Fixed Speed High Efficiency [pdf] Owner's Manual FG7T Two Stage Fixed Speed High Efficiency, FG7T, Two Stage Fixed Speed High Efficiency, Fixed Speed High Efficiency, Speed High Efficiency, High Efficiency, Efficiency

References

- [TCPDF](#)
- [User Manual](#)