



New Gas Furnace Installation Inspection Form

Inspection Date: _____

Job/Client Information

Client name: _____ Client/Job number: _____
Address: _____ Phone: _____

Equipment Information

Fuel type: ☐ Natural ☐ Propane	Btuh Input:	5.3003.1
Furnace type: ☐ Draft hood ☐ 80% ☐ 90% ☐ Mobile home ☐ Space		
Application: ☐ Up flow ☐ Down flow ☐ Horizontal ☐ Lowboy ☐ Package		
Make: _____ Model: _____ Serial: _____		
Temperature rise minimum: _____ °F Maximum: _____ °F Manifold pressure: _____ In. W.C		
Furnace Location (CAZ): _____ Water heater: ☐ Gas ☐ Electric		
WH Location (CAZ): _____ Btuh input: _____		

Gas Piping

Technician Inspection SWS Detail

Y N Y N

Gas piping system leak tested and code compliant

☐	☐	☐	☐	2.0201.1
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Vent System

Technician Inspection SWS Detail

Y N Y N

Furnace venting installed per manufacturers specifications

Water heater vented properly

☐	☐	☐	☐	2.0201.1
☐	☐	☐	☐	

Thermostat

Technician Inspection SWS Detail

Y N Y N

Thermostat location functional, level and opening sealed

Heat anticipator or cycle rate set

Heat anticipator setting: **N/A** _____

☐	☐	☐	☐	5.3003.9
☐	☐	☐	☐	
A		A		

Filter system

Technician Inspection

Y N Y N

Filter size: _____ X _____ X _____

Filter clean, properly supported, user friendly and minimum Merv 6

☐	☐	☐	☐	5.3001.2
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Electrical

Technician Inspection

Y N Y N

Polarity to furnace and ground tested

Switch within reach of furnace

☐	☐	☐	☐	5.3003.4
☐	☐	☐	☐	5.3003.7

Combustion Air

Y N Y N

Combustion air requirements provided for non-direct vent appliances

☐	☐	☐	☐	2.0201.2
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CAZ Depressurization Testing

Baseline test Set-up

Turn all combustion appliances off, remove furnace filter
 Close all exterior windows, doors, wood stove and fireplace dampers
 Set-up gauge: CAZ w/ reference to outside
Record baseline CAZ pressure

Technician	Inspection	SWS Detail
☐ Done	☐ Done	2.0201.1
☐ Done	☐ Done	
☐ Done	☐ Done	
Pa	Pa	

Blower off test set-up

Turn on dryer and all exhaust fans
 Blower door @ 300 CFM for fireplace
 CAZ supplies closed, all others open
 Close interior doors to rooms w/o exhaust fans

Technician	Inspection	SWS Detail
☐ Done	☐ Done	2.0201.1
☐ Done	☐ Done	
☐ Done	☐ Done	
☐ Done	☐ Done	

Smoke or pressure test any doors that separate stories or sections of the house to determine door position with CAZ at your back. Positive pressure(blows smoke toward you) close door. Negative pressure(sucks smoke under) open door.

Blower off with CAZ door open
Blower off with CAZ door closed

Technician	Inspection	SWS Detail
Pa.	Pa.	2.0202.1
Pa.	Pa.	

Blower on test set-up

Turn blower on, smoke or pressure test all doors to rooms with exhaust or returns to determine door position with CAZ at your back. Positive pressure(blows smoke toward you) close door. Negative pressure(sucks smoke under) open door. Retest doors that separate stories or sections of the house.

Blower on with CAZ door open
Blower on with CAZ door closed
Worst-case pressure adjusted for baseline
 Outdoor temp.

Technician	Inspection	SWS Detail
Pa.	Pa.	2.0201.1
Pa.	Pa.	
Pa.	Pa.	
°F	°F	

Water Heater(or smallest Btuh input appliance) Combustion Safety Test

Set-up CAZ in "worst case" condition for testing, monitor ambient carbon monoxide while testing

Fire the water heater
 Establishes flow within 5 seconds
 Passes spillage test within 2 minutes
 Draft pressure after 5 minutes
 Carbon monoxide after 5 minutes

Technician		Inspection		SWS Detail	
Y	N	Y	N		
☐	☐	☐	☐		2.0201.1
☐	☐	☐	☐		
Pa	Pa	Pa	Pa		
"w.c.	"w.c.	"w.c.	"w.c.		
/ ppm	/ ppm	/ ppm	/ ppm		

(Note: Leave water heater fired for re-test purposes)

Furnace(or larger Btuh input appliance) Combustion Safety Test

	Technician	Inspection	SWS Detail
Fire the furnace	Y N	Y N	
Establishes flow within 5 seconds	☐ ☐	☐ ☐	2.0201.1
Passes spillage test within 2 minutes	☐ ☐	☐ ☐	
Re-test water heater after 80% furnace burners fire or when there is no spillage from draft hood appliance. Also re-test water heater after firing any other vented appliance that shares combustion air.			
Spillage at the water heater draft hood	☐ ☐	☐ ☐	2.0201.1
Re-test draft pressure on water heater	Pa "w.c.	Pa "w.c.	
Was there reduction in draft when any combustion appliance that shares vent system or combustion air was fired	Y N ☐ ☐	Y N ☐ ☐	
Furnace draft pressure after 5 minutes	Pa "w.c.	Pa "w.c.	
Furnace CO in flue gas after 5 minutes	ppm	ppm	
CO in each cell on draft hood	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	

Furnace Operational Testing

Combustion Analysis

	Technician	Inspection	SWS Detail
Carbon monoxide	ppm	ppm	5.3003.14
Oxygen	%	%	
Carbon dioxide	%	%	
Excess air	%	%	
Steady State Efficiency	%	%	
Stack temperature	°F	°F	

Verify Input

* Clock meter for natural gas * Check manifold pressure for propane

Time seconds for 2 cu.ft. gas flow, e.g. 4 turns of 1/2 ft. dial or 8 turns of 1/4 ft. dial

	Technician	Inspection	
Seconds timed for 2 cu.ft. gas flow	sec.	sec.	
Total seconds divided by 4	sec.	sec.	
Cubic feet/hr. from clocking table	cu.ft.	cu.ft.	
or			
7200 ÷ Seconds for 2 cu.ft. flow	cu.ft.	cu.ft.	
Average Btu content of gas used	X	Btu	
Multiply cu.ft. per hour by Btu content of gas equals Btuh input	Btuh input	Btuh input	
Input must be within 5 % of rated input without going over			
Furnace gas manifold pressure	"w.c.	"w.c.	

Air Flow

	Technician	Inspection	SWS Detail
Supply air temperature	° F.	° F.	5.3003.3
Return air temperature	° F.	° F.	
Temperature rise	° F.	° F.	
Temp rise within specifications	Y ☐ N ☐	Y ☐ N ☐	
<i>If rise not within specifications, test furnace airflow static pressures to determine corrective measures</i>			

Verify Controls

Limit switch functions	Y ☐ N ☐	
Record plenum temperature when tripped:	° F.	
Record and adjust fan off temperature	° F.	° F.

Air flow calculation by temperature rise method

Heat output: Use Btuh input multiplied by efficiency e.g.. 100,000 input X 90% = 90,000 output

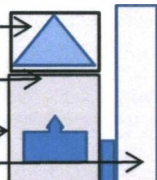
Calculation: Heat output ÷ (temperature rise X 1.08) = CFM

Temperature rise: _____ °F Multiplied by 1.08 equals: _____ °F Adjusted temperature rise

Btuh output: _____ Divided by adjusted temperature rise = _____ cfm

5.3003.3

Static Pressure Readings

A: Supply duct static pressure		" w.c.		5.3003.3
B: Furnace total supply static pressure		" w.c.		
C: Furnace total return static pressure		" w.c.		
D: Return duct static pressure		" w.c.		

Subtract A: Supply duct static from B: Furnace total supply static pressure Pressure drop across coil: _____	"w.c.	5.3003.3
Add B: Furnace total supply static pressure to C: Furnace total return static pressure Total or External static pressure: _____	"w.c.	5.3003.3
Subtract D: Return duct static pressure from C: Furnace total return static pressure Pressure drop across filter: _____	"w.c.	5.3003.3

Client Education

Basic operation of the equipment explained to the client	☐ Done	2.0702.2
Proper operation and programming of the thermostat explained to the client	☐ Done	2.0702.2
Electrical disconnects and fuel shut offs demonstrated to the client	☐ Done	2.0702.2
Proper filter selection and how to change filter explained	☐ Done	2.0702.2
Location of combustion air inlets will be identified for and not blocking inlets will be explained to the client	☐ Done	2.0702.3

Installing technician

Signature: _____

Date: _____

Inspection performed by:

Signature: _____

Date: _____

Minimum Draft Pressure Requirements

Outdoor Temperature	Inches of water column	Pascals
Greater than 80 degrees F	Negative 0.005 " w.c.	Negative 1 Pa
Between 60 and 80 degrees F.	Negative 0.008" w.c.	Negative 2 Pa
Between 40 and 60 degrees F.	Negative 0.012" w.c.	Negative 3 Pa
Between 20 and 40 degrees F.	Negative 0.016" w.c.	Negative 4 Pa
Less than 20 degrees F.	Negative 0.02" w.c.	Negative 5 Pa



Pg. 1

Gas Meter Dial Used					
Secandr farano revolution	One Half cu. Ft.	One cu. Ft.	Two cu. Ft.	Five cu. Ft.	Ten cu. Ft.
Cubic Feet Per Hour					
10	180	360	720	1800	3600
11	164	327	655	1634	3272
12	150	300	600	1500	3000
13	138	277	555	1385	2770
14	129	257	514	1286	2572
15	120	240	480	1200	2400
16	112	225	450	1125	2250
17	106	212	424	1059	2118
18	100	200	400	1000	2000
19	95	189	379	947	1894
20	90	180	360	900	1800
21	86	171	343	857	1714
22	82	164	327	818	1636
23	78	157	313	783	1566
24	75	150	300	750	1500
25	72	144	288	720	1440
26	69	138	277	692	1384
27	67	133	267	667	1334
28	64	129	257	643	1286
29	62	124	248	621	1242



Pg. 3

Gas Meter Dial Used					
Secandr farano revolution	One Half cu. Ft.	One cu. Ft.	Two cu. Ft.	Five cu. Ft.	Ten cu. Ft.
Cubic Feet Per Hour					
50	36	72	144	360	720
51	35	71	141	353	706
52	35	69	138	346	692
53	34	68	136	340	680
54	33	67	133	333	666
55	33	65	131	327	654
56	32	64	129	321	642
57	32	63	126	316	632
58	31	62	124	310	620
59	30	61	122	305	610
60	30	60	120	300	600
62	29	58	116	290	580
64	29	56	112	281	562
66	29	54	109	273	546
68	28	53	106	265	530
70	26	51	103	257	514
72	25	50	100	250	500
74	24	48	97	243	486
76	24	47	95	237	474
78	23	46	92	231	462



Pg. 2

Gas Meter Dial Used					
Secandr farano revolution	One Half cu. Ft.	One cu. Ft.	Two cu. Ft.	Five cu. Ft.	Ten cu. Ft.
Cubic Feet Per Hour					
30	60	120	240	600	1200
31	58	116	232	581	1162
32	56	113	225	563	1126
33	55	109	218	545	1090
34	53	106	212	529	1058
35	51	103	206	514	1028
36	50	100	200	500	1000
37	49	97	195	486	972
38	47	95	189	474	948
39	46	92	185	462	924
40	45	90	180	450	900
41	44	88	176	440	880
42	43	86	172	430	860
43	42	84	167	420	840
44	41	82	164	410	820
45	40	80	160	400	800
46	39	78	157	391	782
47	38	77	153	383	766
48	37	75	150	375	750
49	37	73	147	367	734



Pg. 4

Gas Meter Dial Used					
Secandr farano revolution	One Half cu. Ft.	One cu. Ft.	Two cu. Ft.	Five cu. Ft.	Ten cu. Ft.
Cubic Feet Per Hour					
80	22	45	90	225	450
82	22	44	88	220	440
84	21	43	86	214	428
86	21	42	84	209	418
88	20	41	82	205	410
90	20	40	80	200	400
94	19	38	76	192	384
98	18	37	74	184	368
100	18	36	72	180	360
104	17	35	69	173	346
108	17	33	67	167	334
112	16	32	64	161	322
116	15	31	62	155	310
120	15	30	60	150	300
130	14	28	55	138	276
140	13	26	51	129	258
150	12	24	48	120	240
160	11	22	45	113	226
170	11	21	42	106	212
180	10	20	40	100	200