

SELECTION AND INSTALLATION INSTRUCTIONS

high altitude orifice kit

models PD/BD, PDP/BDP, PSH/BSH

and model series “D”, “H”, “I”, “O” duct furnace/make up air units

(not including separated combustion)

WARNING

The use of this manual is specifically intended for a qualified installation and service agency. All installation and service of these units must be performed by a qualified installation and service agency. Modine manuals may contain excerpts from component supplier literature adapted for Modine products. Any accompanying component supplier literature is for general information.

Figure 1.1
Gas Designation Disc

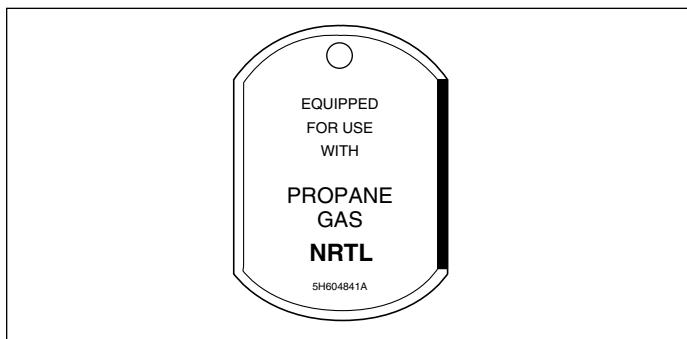


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For Units being Converted from Natural Gas to Propane Gas Concurrently

IMPORTANT

Conversion from natural gas to propane gas **is allowed** for PD/BD, PDP/BDP, and PSH/BSH models with 11, 12, 30, or 31 control codes, built in January, 1987 or later. **For this conversion, both a propane conversion kit and a propane high altitude kit must be used.**

Follow carefully the propane conversion instructions, found in Bulletin 75-511, using the proper high altitude main burner orifices called out in this literature (75-535) **instead of** the orifices in propane conversion kit.

HIGH ALTITUDE CONVERSION

For Existing Natural or Propane Gas Units

Gas-fired equipment ratings are certified by C.S.A. For elevations above 2000 ft., ANSI Z223.1 requires ratings be reduced 4 percent for each 1000 ft. above sea level. C.G.A. requires that ratings be reduced 10% at elevations above 2000 ft. **To accommodate higher altitude operation, equipment must be converted by changing orifices as explained in this instruction sheet.** Tables 2.1 thru 5.2 list orifice kits which comply with both ANSI Z223.1 recommendations and C.S.A. requirements.

As Modine Manufacturing Company has a continuous product improvement program, it reserves the right to change design and specifications without notice.

SELECTION OF THE PROPER KIT

To select the proper high altitude kit you need to know the specifics of the heater you will be converting, and the altitude it will be going into. If the high altitude kits are ordered at the same time as the unit heater, all pertinent information relative to the heater can be obtained from the catalog. If the high altitude kit is needed after the unit heater is in the field, you need to refer to the carton label or unit heater serial plate to obtain the necessary information. Figure 8.2 shows a portion of the unit heater serial plate where this information may be obtained. Referring to this figure, the prefix letters and successive numbers which are needed for kit selection are BV 100. The letters identify the model and the numbers the size of the unit. To determine the type of gas the unit is designed for, see the gas designation disc (Figure 1.1) and the type of gas, located on the serial plate.

After obtaining this information, refer to the proper selection chart. The selection charts are differentiated by product type, altitude and fuel type. **Remember, if you are converting from natural gas to propane gas and want to operate at high altitude, both a propane conversion kit and a propane high altitude kit must be used.** Selection charts include the proper kit suffix, the orifice drill size, and the number of orifices required for the unit being converted. Drill sizes are also stamped on each orifice.

Table 2.1

High Altitude Orifice Kit Selection Guide (Natural Gas - 2001 to 4500 ft. elevations) - PD/BD, PDP/BDP, PSH/BSH, and model series “D”, “H”, “I”, & “O” (not including separated combustion)①

Model Type	Model Size																
	30	50	75	100	125	130	150	170	175	200	225	250	280	300	340	350	400
PD/BD, PDP/BDP	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-30	-121	-120	-22	-23	-	-90	-	-15	-26	-	-125	-	-92	-	-88	-126
Drill Size	41	31	24	31	29	-	24	-	30	28	-	21	-	24	-	26	28
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
PSH/BSH	-	-	-	-	-	130	150	170	-	-	225	-	280	-	340	-	-
Kit Suffix	-	-	-	-	-	14	94	15	-	-	50	-	44	-	129	-	-
Drill Size	-	-	-	-	-	28	31	30	-	-	24	-	26	-	27	-	-
Orifices in Kit	-	-	-	-	-	2	3	3	-	-	3	-	4	-	5	-	-
Pressure Switch in Kit	-	-	-	-	-	NO	NO	NO	-	-	NO	-	NO	-	NO	-	-
Pressure Switch Setting	-	-	-	-	-	NA	NA	NA	-	-	NA	-	NA	-	NA	-	-
②	-	-	75	100	125	-	150	-	175	200	225	250	-	300	-	350	400
Kit Suffix	-	-	-3	-22	-14	-	-94	-	-7	-8	-9	-10	-	-11	-	-85	-13
Drill Size	-	-	23	31	28	-	31	-	29	26	23	28	-	23	-	29	26
Orifices in Kit	-	-	1	2	2	-	3	-	3	3	3	4	-	4	-	6	6

Table 2.2

High Altitude Orifice Kit Selection Guide (Natural Gas - 4501 to 5500 ft. elevations) - PD/BD, PDP/BDP, PSH/BSH, and model series “D”, “H”, “I”, & “O” (not including separated combustion)①

Model Type	Model Size																
	30	50	75	100	125	130	150	170	175	200	225	250	280	300	340	350	400
PD/BD, PDP/BDP	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-33	-121	-127	-22	-23	-	-128	-	-15	-26	-	-112	-	-87	-	-129	-126
Drill Size	42	31	25	31	29	-	25	-	30	28	-	22	-	25	-	27	28
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
PSH/BSH	-	-	-	-	-	130	150	170	-	-	225	-	280	-	340	-	-
Kit Suffix	-	-	-	-	-	504	508	15	-	-	513	-	95	-	522	-	-
Drill Size	-	-	-	-	-	29	31	30	-	-	25	-	27	-	28	-	-
Orifices in Kit	-	-	-	-	-	2	3	3	-	-	3	-	4	-	5	-	-
Pressure Switch in Kit	-	-	-	-	-	YES	YES	NO	-	-	YES	-	NO	-	YES	-	-
Pressure Switch Setting	-	-	-	-	-	0.64	0.64	NA	-	-	0.57	-	NA	-	0.88	-	-
②	-	-	75	100	125	-	150	-	175	200	225	250	-	300	-	350	400
Kit Suffix	-	-	-120	-22	-14	-	-94	-	-15	-122	-50	-10	-	-92	-	-97	-93
Drill Size	-	-	24	31	28	-	31	-	30	27	24	28	-	24	-	30	27
Orifices in Kit	-	-	1	2	2	-	3	-	3	3	3	4	-	4	-	6	6

① All conversion kits have the same base part number 3H33231, only the suffix of the part number changes by model size.

Indoor Duct Furnaces	Weatherproof Duct Furnaces
DFG, DBG, DCG, IFG, IBG, ICG	HFG, HBG, HCG, HDG, HPG, OFG, OBG, OCG, ODG, OPG HFP, HBP, HCP, HDR, HPP, OFF, OBP, OCP, ODP, OPP

Table 3.1
High Altitude Orifice Kit Selection Guide (Natural Gas - 5501 to 6500 ft. elevations) - PD/BD, PDP/BDP, PSH/BSH,
and model series “D”, “H”, “I”, & “O” (not including separated combustion)①

Model Type	Model Size																
	30	50	75	100	125	130	150	170	175	200	225	250	280	300	340	350	400
PD/BD	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-78	-121	-24	-22	-4	-	-102	-	-15	-7	-	-9	-	-44	-	-96	-85
Drill Size	43	31	26	31	30	-	26	-	30	29	-	23	-	26	-	28	29
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
PDP/BDP	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-78	-121	-501	-22	-4	-	-102	-	-15	-7	-	-9	-	-44	-	-96	-85
Drill Size	43	31	26	31	30	-	26	-	30	29	-	23	-	26	-	28	29
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
Pressure Switch in Kit	NO	NO	YES	NO	NO	-	NO	-	NO	NO	-	NO	-	NO	-	NO	NO
Pressure Switch Setting	NA	NA	0.66	NA	NA	-	NA	-	NA	NA	-	NA	-	NA	-	NA	NA
PSH/BSH	-	-	-	-	-	130	150	170	-	-	225	-	280	-	340	-	-
Kit Suffix	-	-	-	-	-	504	508	94	-	-	514	-	518	-	522	-	-
Drill Size	-	-	-	-	-	29	31	31	-	-	26	-	28	-	28	-	-
Orifices in Kit	-	-	-	-	-	2	3	3	-	-	3	-	4	-	5	-	-
Pressure Switch in Kit	-	-	-	-	-	YES	YES	NO	-	-	YES	-	YES	-	YES	-	-
Pressure Switch Setting	-	-	-	-	-	0.64	0.64	NA	-	-	0.57	-	1.07	-	0.88	-	-
②	-	-	75	100	125	-	150	-	175	200	225	250	-	300	-	350	400
Kit Suffix	-	-	-127	-22	-23	-	-94	-	-15	-26	-56	-115	-	-87	-	-97	-126
Drill Size	-	-	25	31	29	-	31	-	30	28	25	29	-	25	-	30	28
Orifices in Kit	-	-	1	2	2	-	3	-	3	3	3	4	-	4	-	6	6

Table 3.2
High Altitude Orifice Kit Selection Guide (Natural Gas - 6501 to 7500 ft. elevations) - PD/BD, PDP/BDP, PSH/BSH,
and model series “D”, “H”, “I”, & “O” (not including separated combustion)①

Model Type	Model Size																
	30	50	75	100	125	130	150	170	175	200	225	250	280	300	340	350	400
PD/BD	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-78	-101	-83	-28	-4	-	-5	-	-94	-7	-	-50	-	-95	-	-100	-85
Drill Size	43	32	27	32	30	-	27	-	31	29	-	24	-	27	-	29	29
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
PDP/BDP	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-78	-101	-502	-28	-4	-	-5	-	-94	-7	-	-50	-	-95	-	-100	-85
Drill Size	43	32	27	32	30	-	27	-	31	29	-	24	-	27	-	29	29
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
Pressure Switch in Kit	NO	NO	YES	NO	NO	-	NO	-	NO	NO	-	NO	-	NO	-	NO	NO
Pressure Switch Setting	NA	NA	0.66	NA	NA	-	NA	-	NA	NA	-	NA	-	NA	-	NA	NA
PSH/BSH	-	-	-	-	-	130	150	170	-	-	225	-	280	-	340	-	-
Kit Suffix	-	-	-	-	-	505	509	508	-	-	515	-	519	-	523	-	-
Drill Size	-	-	-	-	-	30	32	31	-	-	27	-	29	-	29	-	-
Orifices in Kit	-	-	-	-	-	2	3	3	-	-	3	-	4	-	5	-	-
Pressure Switch in Kit	-	-	-	-	-	YES	YES	YES	-	-	YES	-	YES	-	YES	-	-
Pressure Switch Setting	-	-	-	-	-	0.64	0.64	0.64	-	-	0.57	-	1.07	-	0.88	-	-
②	-	-	75	100	125	-	150	-	175	200	225	250	-	300	-	350	400
Kit Suffix	-	-	-24	-22	-4	-	-94	-	-15	-7	-8	-91	-	-44	-	-97	-85
Drill Size	-	-	26	31	30	-	31	-	30	29	26	30	-	26	-	30	29
Orifices in Kit	-	-	1	2	2	-	3	-	3	3	3	4	-	4	-	6	6

① All conversion kits have the same base part number 3H33231, only the suffix of the part number changes by model size.

②

Indoor Duct Furnaces	Weatherproof Duct Furnaces
DFG, DBG, DCG, IFG, IBG, ICG	HFG, HBG, HCG, HDG, HPG, OFG, OBG, OCG, ODG, OPG, HFP, HBP, HCP, HDP, HPP, OFF, OBP, OCP, ODP, OPP

Table 4.1

High Altitude Orifice Kit Selection Guide (Propane Gas - 2001 to 4500 ft. elevations) - PD/BD, PDP/BDP, PSH/BSH, and model series “D”, “H”, “I”, & “O” (not including separated combustion)①

Model Type	Model Size																
	30	50	75	100	125	130	150	170	175	200	225	250	280	300	340	350	400
PD/BD, PDP/BDP	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-52	-32	-33	-45	-35	-	-108	-	-63	-38	-	-82	-	-49	-	-42	-51
Drill Size	53	48	42	48	44	-	42	-	45	43	-	39	-	42	-	43	43
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
PSH/BSH	-	-	-	-	-	130	150	170	-	-	225	-	280	-	340	-	-
Kit Suffix	-	-	-	-	-	77	47	63	-	-	39	-	40	-	42	-	-
Drill Size	-	-	-	-	-	43	48	45	-	-	42	-	43	-	43	-	-
Orifices in Kit	-	-	-	-	-	2	3	3	-	-	3	-	4	-	5	-	-
Pressure Switch in Kit	-	-	-	-	-	NO	NO	NO	-	-	NO	-	NO	-	NO	-	-
Pressure Switch Setting	-	-	-	-	-	NA	NA	NA	-	-	NA	-	NA	-	NA	-	-
②	-	-	75	100	125	-	150	-	175	200	225	250	-	300	-	350	400
Kit Suffix	-	-	-1	-34	-77	-	-37	-	-79	-38	-64	-40	-	-41	-	-86	-51
Drill Size	-	-	40	47	43	-	47	-	44	43	40	43	-	40	-	44	43
Orifices in Kit	-	-	1	2	2	-	3	-	3	3	3	4	-	4	-	6	6

Table 4.2

High Altitude Orifice Kit Selection Guide (Propane Gas - 4501 to 5500 ft. elevations) - PD/BD, PDP/BDP, PSH/BSH, and model series “D”, “H”, “I”, & “O” (not including separated combustion)①

Model Type	Model Size																
	30	50	75	100	125	130	150	170	175	200	225	250	280	300	340	350	400
PD/BD, PDP/BDP	30	50	75	100	125	-	150	175	-	200	-	250	-	300	-	350	400
Kit Suffix	-31	-32	-33	-45	-46	-	-108	-63	-	-79	-	-64	-	-49	-	-42	-86
Drill Size	54	48	42	48	45	-	42	45	-	44	-	40	-	42	-	43	44
Orifices in Kit	1	1	1	2	2	-	2	3	-	3	-	3	-	4	-	5	6
PSH/BSH	-	-	-	-	-	130	150	170	-	-	225	-	280	-	340	-	-
Kit Suffix	-	-	-	-	-	506	510	109	-	-	516	-	40	-	524	-	-
Drill Size	-	-	-	-	-	44	48	46	-	-	27	-	43	-	43	-	-
Orifices in Kit	-	-	-	-	-	2	3	3	-	-	3	-	4	-	5	-	-
Pressure Switch in Kit	-	-	-	-	-	YES	YES	NO	-	-	YES	-	NO	-	YES	-	-
Pressure Switch Setting	-	-	-	-	-	0.64	0.64	NA	-	-	0.57	-	NA	-	0.88	-	-
②	-	-	75	100	125	-	150	-	175	200	225	250	-	300	-	350	400
Kit Suffix	-	-	-30	-34	-35	-	-37	-	-63	-38	-48	-72	-	-111	-	-74	-51
Drill Size	-	-	41	47	44	-	47	-	45	43	41	44	-	41	-	45	43
Orifices in Kit	-	-	1	2	2	-	3	-	3	3	3	4	-	4	-	6	6

① All conversion kits have the same base part number 3H33231, only the suffix of the part number changes by model size.

②	Indoor Duct Furnaces DFG, DBG, DCG, IFG, IBG, ICG	Weatherproof Duct Furnaces HFG, HBG, HCG, HDG, HPG, OFG, OBG, OCG, ODG, OPG HFP, HBP, HCP, HDP, HPP, OFP, OBP, OCP, ODP, OPP
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Table 5.1
High Altitude Orifice Kit Selection Guide (Propane Gas - 5501 to 6500 ft. elevations) - PD/BD, PDP/BDP, PSH/BSH, and model series “D”, “H”, “I”, & “O” (not including separated combustion)①

Model Type	Model Size																
	30	50	75	100	125	130	150	170	175	200	225	250	280	300	340	350	400
PD/BD	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-31	-106	-78	-59	-46	-	-77	-	-109	-79	-	-48	-	-40	-	-42	-86
Drill Size	54	49	43	49	45	-	43	-	46	44	-	41	-	43	-	43	44
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
PDP/BDP	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-31	-106	-503	-59	-46	-	-77	-	-109	-79	-	-48	-	-40	-	-42	-86
Drill Size	54	49	43	49	45	-	43	-	46	44	-	41	-	43	-	43	44
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
Pressure Switch in Kit	NO	NO	YES	NO	NO	-	NO	-	NO	NO	-	NO	-	NO	-	NO	NO
Pressure Switch Setting	NA	NA	0.66	NA	NA	-	NA	-	NA	NA	-	NA	-	NA	-	NA	NA
PSH/BSH	-	-	-	-	-	130	150	170	-	-	225	-	280	-	340	-	-
Kit Suffix	-	-	-	-	-	506	511	37	-	-	517	-	520	-	525	-	-
Drill Size	-	-	-	-	-	44	49	47	-	-	43	-	43	-	44	-	-
Orifices in Kit	-	-	-	-	-	2	3	3	-	-	3	-	4	-	5	-	-
Pressure Switch in Kit	-	-	-	-	-	YES	YES	NO	-	-	YES	-	YES	-	YES	-	-
Pressure Switch Setting	-	-	-	-	-	0.64	0.64	NA	-	-	0.57	-	1.07	-	0.88	-	-
②	-	-	75	100	125	-	150	-	175	200	225	250	-	300	-	350	400
Kit Suffix	-	-	-33	-45	-35	-	-47	-	-63	-38	-39	-72	-	-49	-	-74	-51
Drill Size	-	-	42	48	44	-	48	-	45	43	42	44	-	42	-	45	43
Orifices in Kit	-	-	1	2	2	-	3	-	3	3	3	4	-	4	-	6	6

Table 5.2
High Altitude Orifice Kit Selection Guide (Propane Gas - 6501 to 7500 ft. elevations) - PD/BD, PSH/BSH, and model series “D”, “H”, “I”, & “O” (not including separated combustion)①

Model Type	Model Size																
	30	50	75	100	125	130	150	170	175	200	225	250	280	300	340	350	400
PD/BD	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-31	-106	-78	-59	-46	-	-77	-	-37	-63	-	-39	-	-40	-	-99	-74
Drill Size	54	49	43	49	45	-	43	-	47	45	-	42	-	43	-	44	45
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
PDP/BDP	30	50	75	100	125	-	150	-	175	200	-	250	-	300	-	350	400
Kit Suffix	-31	-106	-503	-59	-46	-	-77	-	-37	-63	-	-39	-	-40	-	-99	-74
Drill Size	54	49	43	49	45	-	43	-	47	45	-	42	-	43	-	44	45
Orifices in Kit	1	1	1	2	2	-	2	-	3	3	-	3	-	4	-	5	6
Pressure Switch in Kit	NO	NO	YES	NO	NO	-	NO	-	NO	NO	-	NO	-	NO	-	NO	NO
Pressure Switch Setting	NA	NA	0.66	NA	NA	-	NA	-	NA	NA	-	NA	-	NA	-	NA	NA
PSH/BSH	-	-	-	-	-	130	150	170	-	-	225	-	280	-	340	-	-
Kit Suffix	-	-	-	-	-	507	511	512	-	-	517	-	521	-	525	-	-
Drill Size	-	-	-	-	-	45	49	47	-	-	43	-	44	-	44	-	-
Orifices in Kit	-	-	-	-	-	2	3	3	-	-	3	-	4	-	5	-	-
Pressure Switch in Kit	-	-	-	-	-	YES	YES	YES	-	-	YES	-	YES	-	YES	-	-
Pressure Switch Setting	-	-	-	-	-	0.64	0.64	0.64	-	-	0.57	-	1.07	-	0.88	-	-
②	-	-	75	100	125	-	150	-	175	200	225	250	-	300	-	350	400
Kit Suffix	-	-	-33	-45	-46	-	-47	-	-63	-79	-39	-119	-	-49	-	-74	-86
Drill Size	-	-	42	48	45	-	48	-	45	44	42	45	-	42	-	45	44
Orifices in Kit	-	-	1	2	2	-	3	-	3	3	3	4	-	4	-	6	6

① All conversion kits have the same base part number 3H33231, only the suffix of the part number changes by model size.

②	Indoor Duct Furnaces DFG, DBG, DCG, IFG, IBG, ICG	Weatherproof Duct Furnaces HFG, HBG, HCG, HDG, HPG, OFG, OBG, OCG, ODG, OPG, HFP, HBP, HCP, HDP, HPP, OFF, OBP, OCP, ODP, OPP
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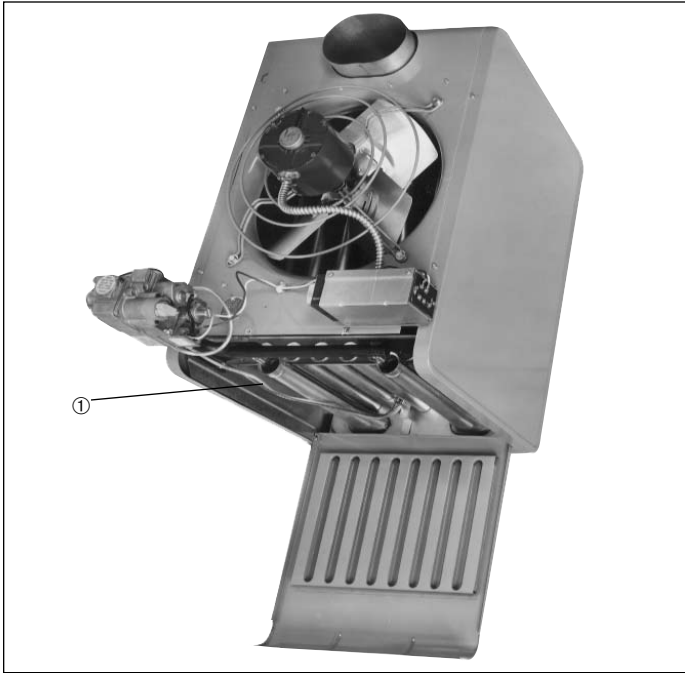
INSTALLATION

Conversion of any unit is the responsibility of, and the risk of the person making the conversion.

WARNING

1. Disconnect power and gas supply before making conversion.
2. All field gas piping must be pressure/leak tested prior to operation. Never use an open flame. Use a soap solution or equivalent for testing.

Figure 6.1
Hinged Bottom for Burner Service



Step 1 Turn off all electricity and gas to unit.

PD/BD, PDP/BDP, PV/BV Models

Lower bottom pan to expose burner and manifold (see Figure 6.1).

“D”, “H”, “I”, & “O” Models (not including separated combustion)

Remove weatherproof duct furnace section access door to obtain access to the manifold assembly (not applicable on indoor gravity vented models). See Figure 6.2.

Disconnect gas manifold at the ground joint union (field supplied ground joint union on DFG and IFG models equipped with standard control box). Remove the two screws holding the manifold to the heat exchanger support. Slide the manifold through the manifold bracket.

Figure 6.2
Manifold Assembly Removal
(HFG model shown for reference)

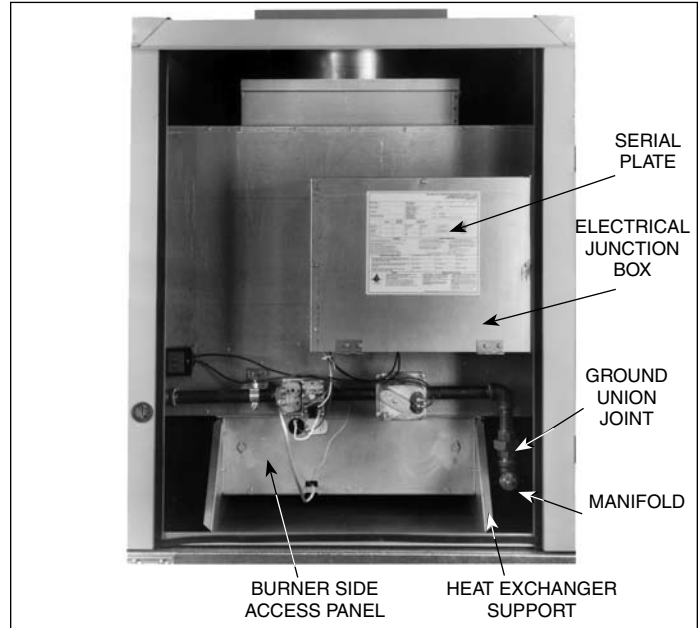
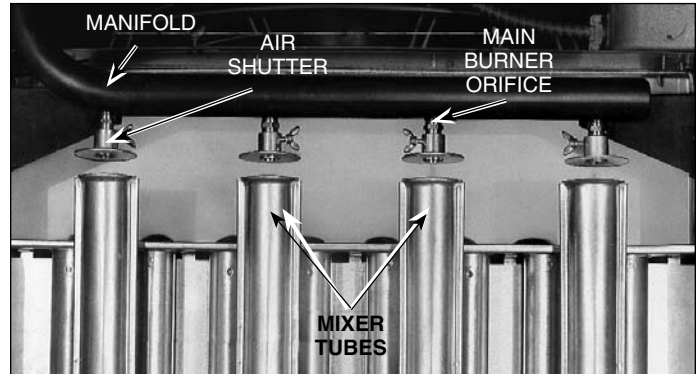


Figure 6.3
Burner Orifices and Air Shutters



Step 2 Exchange main burner orifice(s) and install air shutters if provided (see Figure 6.3). Check the orifice number stamped on each orifice. Be sure that this number is the same number indicated on the kit parts list for the kit being installed (see previous tables).

FOR ALL “D”, “H”, “I”, & “O” UNITS, PROCEED WITH STEP 3.

IF UNIT BEING CONVERTED IS A PD/BD, PDP/BDP, PSH/BSH PROCEED WITH STEP 4.

Step 3 “D”, “H”, “I”, & “O” Models

Re-install the manifold assembly making certain that it is correctly positioned.

Step 4 If a new pressure switch is supplied with your kit, remove the old pressure switch and install the new one in its place. Reconnect the pressure line to the new switch.

INSTALLATION

Figure 7.1

PDP High Efficiency II Unit Heater



Step 5 On the High Altitude Conversion Label (see Figure 7.3) write the drill size, as stamped on orifice, with a permanent marker. Be sure to check correct orifice size using the selection instructions beginning on page 1.

Affix the High Altitude Conversion Label (Figure 7.3) adjacent to the unit's serial plate.

Step 6 Restore fuel supply to the unit.

Step 7 Check gas supply pressure at unit upstream from combination gas control. The supply pressure should be 6" - 7" W.C. on natural gas or 11" - 14" W.C. on propane gas.

Step 8 Connect the manometer (or gauge) to the outlet pressure tap on the combination gas control.

Step 9 Restore electric supply to unit.

Step 10 Follow lighting instructions on unit. Turn up thermostat setting to call for heat. After the main burners light, measure the outlet (manifold) pressure of the combination gas control. The pressure should be 3.5 in. W.C. for natural gas and 10 in. W.C. for propane gas. The outlet pressure can be adjusted at the control's regulator. Turning the adjustment clockwise will increase the outlet pressure while turning it counterclockwise will decrease the pressure.

Step 11 Check for leaks at all joints and connections in the gas lines. This is most easily done with a soap/water solution. Simply brush or spray some of the solution on a joint or connection and look for bubble formation.

Step 12 Observe the main burner flame. The flame should have a well-defined conical shape with the base anchored to the burner port. If the flame appears to be lifting or rising above the burner port (see Figure 7.2), loosen the thumb screw on the air shutter and slide the shutter forward toward the mixer tube (Figure 6.3).

If a majority of the flame is yellow, move the air shutter back away from the mixer tube. Slight yellow tips on a propane flame are common and are not objectionable.

For more specific flame control adjustment instructions, see the Installation and Service Manual which came with your unit.

Conversion of the unit is complete.

Figure 7.2
Lifting Flame

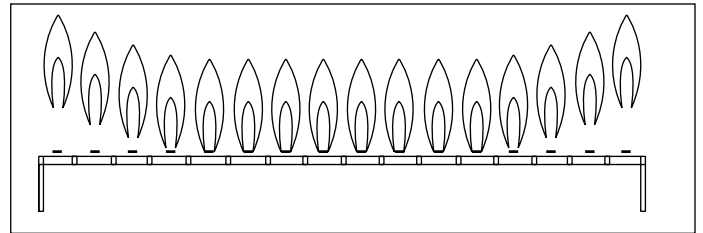


Figure 7.3
High Altitude Conversion Label

NOTICE	
THIS APPLIANCE EQUIPPED FOR HIGH ALTITUDE.	
IN U.S. ACCORDING TO ANSI Z223.1	
IN CANADA, ACCORDING TO C.G.A. CERTIFICATION	
MAIN BURNER ORIFICES CHANGED TO	[] DRILL SIZE.
PLACE THIS LABEL ADJACENT TO SERIAL PLATE.	
5H70857A	

