

HAZARD INTENSITY LEVELS

1. **DANGER:** Failure to comply will result in severe personal injury or death and/or property damage.
2. **WARNING:** Failure to comply could result in severe personal injury or death and/or property damage.
3. **CAUTION:** Failure to comply could result in minor personal injury and/or property damage.



GAS CONVERSION

Parts/Service Form RZ-NA 703 (Version R)
Obsoletes Form 703-Q

APPLIES TO: Reznor® Models UA, XA, XB, XC, XJ, XL, XLB, EEXL, EEXLB; EEDU; PV, PVA, PVB, PVC, PVE, PVJ; RPV, RPBE, RPVE, RPVJ; RCG 225, 300; SC, SCA, SCB, SCE, SCJ; X, XE, PAK, DPAK; RX, RXE, REB; RG, RGB, RGBL; RP, RPB, RPBL; SSCBL; PGBL (and these models with prefix "C", "H", or "HC")

General Requirements

All gas conversion must be done by a Reznor® Distributor or other qualified service technician in accordance with these instructions and in compliance with all codes and requirements.

In Canada, the conversion shall be carried out in accordance with the requirements of the Provincial Authorities having jurisdiction and in accordance with the requirements of the CAN/CGA-B149 (.1 and .2) Installation Code.

This form supersedes and obsoletes all prior information regarding this subject and obsoletes all prior gas conversion packages.

WARNING: Selection of replacement control parts from this manual and all servicing to Reznor® products must be done by a qualified service technician. Improper selection or servicing could result in severe personal injury, death, or property damage. Thomas & Betts Corporation will accept no responsibility or liability as a result of improper servicing of Reznor® products.

WARNING: Conversions should be made only by a qualified service technician. Improper conversion will result in severe personal injury or death. Thomas & Betts Corporation will accept no responsibility or liability as a result of improper gas conversion. Due to increased cost of material and labor, gas conversion should be discouraged as much as possible.

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REFERENCES for currently manufactured Reznor® products NOT in this booklet. Gas conversion kits are available for the products listed.

Model	Sizes	Type of Heater	See Gas Conversion Form
B	All	Unit Heater	RZ-NA 434/436-GC
BE	All	Unit Heater	RZ-NA 434/436-GC
CAUA	All	Packaged Heater	RZ-NA 405-GC
F	All	Unit Heater	RZ-NA 434/436-GC
FE	All	Unit Heater	RZ-NA 434/436-GC
FT	All	Unit Heater	RZ-NA 432/433-GC
SFT	All	Unit Heater	RZ-NA 432/433-GC
TR	75, 100, 125, 150	Tubular Infrared	RZ-NA 456-GC
TRP	All	Tubular Infrared	RZ-NA 452-GC

Infrared NOTE: Model TR Sizes 175 and 200 are available for use with natural gas only. Infrared Models RIH, RIHV, RTN, and RTL are not designed for gas conversion.

SECTION A - Heater Serial Number and Model Number

The identifying model and serial number can be found on the heater rating plate. (The rating plate is attached to the heater.) When converting fuels, it is necessary that you have the complete heater model and serial number. Follow the instructions below to decode these numbers. **IMPORTANT: The complete model number (including all model suffixes) and the complete serial number are required. Components needed in gas conversion cannot be selected without this information.**

DECODING A SERIAL NO.						DECODING A MODEL NO.				
Starting 1975	AAA	31	A4	N	99999	Model No. Example	RG	200	8	M
Serial No. Examples	Month and Year Heater was Manufactured - See below	Safety Pilot	Type of Valve	Type of Gas*	Consecutive Number		Model	Size	Series No.	Mechanical Modulation
1963 through 1974	OA	1	2	N	999					

First Element of the Serial Number - Date of Manufacture

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1963	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL
1964	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL
1965	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL
1966	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL
1967	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL
1968	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL
1969	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL
1970	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL
1971	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL
1972	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL
1973	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL
1974	ZA	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZI	ZJ	ZK	ZL
1975	AAA	AAAB	AAC	AAD	AAE	AAF	AAG	AAH	AAI	AAJ	AAK	AAL
1976	ABA	ABB	ABC	ABD	ABE	ABF	ABG	ABH	ABI	ABJ	ABK	ABL
1977	ACA	ACB	ACC	ACD	ACE	ACF	ACG	ACH	ACI	ACJ	ACK	ACL
1978	ADA	ADB	ADC	ADD	ADE	ADF	ADG	ADH	ADI	ADJ	ADK	ADL
1979	AEA	AEB	AEC	AED	AEE	AEF	AEG	AEH	AEI	AEJ	AEK	AEL
1980	AFA	AFB	AFC	AFD	AFE	AFF	AFG	AFH	AFI	AFJ	AFK	AFL
1981	AGA	AGB	AGC	AGD	AGE	AGF	AGG	AGH	AGI	AGJ	AGK	AGL
1982	AHA	AHB	AHC	AHD	AHE	AHF	AHG	AHH	AHI	AHJ	AHK	AHL
1983	AIA	AIB	AIC	AID	AIE	AIF	AIG	AIH	AII	AIJ	AIK	AIL
1984	AJA	AJB	AJC	AJD	AJE	AJF	AJG	AJH	AJI	AJJ	AJK	AJL
1985	AKA	AKB	AKC	AKD	AKE	AKF	AKG	AKH	AKI	AKJ	AKK	AKL
1986	ALA	ALB	ALC	ALD	ALE	ALF	ALG	ALH	ALI	ALJ	ALK	ALL
1987	AMA	AMB	AMC	AMD	AME	AMF	AMG	AMH	AMI	AMJ	AMK	AML
1988	ANA	ANB	ANC	AND	ANE	ANF	ANG	ANH	ANI	ANJ	ANK	ANL
1989	AOA	AOB	AOC	AOD	AOE	AOE	AOG	AOH	AOI	AOJ	AOK	AOL
1990	APA	APB	APC	APD	APE	APF	APG	APH	API	APJ	APK	APL
1991	AQA	AQB	AQC	AQD	AQE	AQF	AQG	AQH	AQI	AQJ	AQK	AQL
1992	ARA	ARB	ARC	ARD	ARE	ARF	ARG	ARH	ARI	ARJ	ARK	ARL
1993	ASA	ASB	ASC	ASD	ASE	ASF	ASG	ASH	ASI	ASJ	ASK	ASL
1994	ATA	ATB	ATC	ATD	ATE	ATF	ATG	ATH	ATI	ATJ	ATK	ATL
1995	AUA	AUB	AUC	AUD	AUE	AUF	AUG	AUH	AUI	AUJ	AUK	AUL
1996	AVA	AVB	AVC	AVD	AVE	AVF	AVG	AVH	AVI	AVJ	AVK	AVL
1997	AWA	AWB	AWC	AWD	AWE	AWF	AWG	AWH	AWI	AWJ	AWK	AWL
1998	AXA	AXB	AXC	AXD	AXE	AXF	AXG	AXH	AXI	AXJ	AXK	AXL
1999	AYA	AYB	AYC	AYD	AYE	AYF	AYG	AYH	AYI	AYJ	AYK	AYL
2000	AZA	AZB	AZC	AZD	AZE	AZF	AZG	AZH	AZI	AZJ	AZK	AZL
2001	BAA	BAB	BAC	BAD	BAE	BAF	BAG	BAH	BAI	BAJ	BAK	BAL
2002	BBA	BBB	BBC	BBD	BBE	BBF	BBG	BBH	BBI	BBJ	BBK	BBL
2003	BCA	BCB	BCC	BCD	BCE	BCF	BCG	BCH	BCI	BCJ	BCK	BCL
2004	BDA	BDB	BDC	BDD	BDE	BDF	BDG	BDH	BDI	BDJ	BDK	BDL
2005	BEA	BEB	BEC	BED	BEE	BEF	BEG	BEH	BEI	BEJ	BEK	BEL
2006	BFA	BFB	BFC	BFD	BFE	BFF	BFG	BFH	BFI	BFJ	BFK	BFL
2007	BGA	BGB	BGC	BGD	BGE	BGF	BGG	BGH	BGI	BGJ	BGK	BGL
2008	BHA	BHB	BHC	BHD	BHE	BHF	BHG	BHH	BHI	BHJ	BHK	BHL
2009	BIA	BIB	BIC	BID	BIE	BIF	BIG	BIH	BII	BIJ	BIK	BIL
2010	BJA	BJB	BJC	BJD	BJE	BJF	BJG	BJH	BJI	BJJ	BJK	BJL
2011	BKA	BKB	BKC	BKD	BKE	BKF	BKG	BKH	BKI	BKJ	BKK	BKL
2012	BLA	BLB	BLC	BLD	BLE	BLF	BLG	BLH	BLI	BLJ	BLK	BLL
2013	BMA	BMB	BMC	BMD	BME	BMF	BMG	BMH	BMI	BMJ	BMK	BML
2014	BNA	BNB	BNC	BND	BNE	BNF	BNG	BNH	BNI	BNJ	BNK	BNL
2015	BOA	BOB	BOC	BOD	BOE	BOF	BOG	BOH	BOI	BOJ	BOK	BOL

SECTION B - Gas Conversion -- Applies to Reznor® Models UA, XA, XB, XC, XJ; XL, XLB, EEXL, EEXLB, CXL, CXLB; EEDU; PV, PVA, PVB, PVC, PVE, PVJ; RPV, RPBE, RPVE, RPVJ; RCG 225, 300; SC, SCA, SCB, SCE, SCJ; X, XE, PAK, DPAK; RX, RXE, REB; RG, RGB, RGBL; RP, RPB, RPBL; SSCBL; PGBL (and these models with prefix "C", "H", or "HC")

1. Gas Conversion Kit Packages - Models XL, XLB, CEEXL, CEEXLB, EEXL, EEXLB Only

Natural to Propane gas conversion kit packages are available only for Models indicated with heater serial number valve codes and pilot safety codes listed in the following tables. Orifices are for sea level. If a kit is selected, follow the installation instructions in Section C, page 15. If the heater serial number valve code for your model is not listed in either table, follow the instructions outlined in Paragraph No. 2 (page 4) for selecting conversion components.

TABLE 1 - Gas Conversion Kits for XL, XLB			Natural to Propane Conversion Kit for Heater Equipped with		
Conversion Kit P/N ①	Package Label No.	XL,XLB Model Sizes	Match-Lit Pilot	Single-Stage Gas Valve	
			Serial No. Pilot Code	Serial No. Valve Code	Valve Manufacturer
89234	CK001	30	31	G8	White Rodgers #36C03270, 1/2"
89238	CK002	45,60,75,105	31	G8	
89239	CK003	125	31	H3	Robertshaw 403-501-832, 1/2"
89240	CK004	140	31	H3	
89241	CK005	150	31	H3	
89242	CK006	170	31	H3	
89243	CK007	200	31	H3	
89244	CK008	225	31	H3	
89245	CK009	250	31	H3	
89246	CK010	300	31	H1	Minneapolis Honeywell #V800A7028, 3/4"
89247	CK011	350	31	H1	
89248	CK012	400	31	H1	

① **WARNING:** The above natural to propane conversion kits apply **only** to the units listed when equipped with the gas valve listed. Verify the manufacturer's Model No. on the valve with the manufacturer's number listed in Table 1. If there is a discrepancy, follow the instructions in Paragraph 2 (below) to select conversion components.

TABLE 2 - Gas Conversion Kits for Models Listed			Natural to Propane Conversion Kit for Heater Equipped with			
Conversion Kit P/N ①	Pkg Label No.	Models CEEXLB, CEEXL, EEXL, EEXLB, XL, XLB Size	Spark Pilot		Single-Stage Gas Valve	
			Serial No. Pilot Code	Ignition Control	Serial No. Valve Code	Valve Manufacturer
95041	CK24	30 with Date Code prior to ALL	62	JC #G67BG-2	J5	Robertshaw 7100DER 71-11A-000, 1/2"
95043	CK26	30 beginning with Date Code ALL	62	JC #G67BG-2	J5	
95042	CK25	45-105 with Date Code prior to ALL	62	JC #G67BG-2	J5	
95044	CK27	45-105 beginning with Date Code ALL	62	JC #G67BG-2	J5	Minneapolis Honeywell VR8440A2092 1/2"
90765	CK28	125	62	JC #G67BG-2	J7	
90766	CK15	140	62	JC #G67BG-2	J7	
90767	CK17	170	62	JC #G67BG-2	J7	
90768	CK18	200	62	JC #G67BG-2	J7	
90769	CK19	225	62	JC #G67BG-2	J7	
90770	CK20	250	62	JC #G67BG-2	J7	
90771	CK21	300	62	JC #G67BG-2	J8	White Rodgers 36C68-441, 3/4"
90772	CK22	350	62	JC #G67BG-2	J8	
90773	CK23	400	62	JC #G67BG-2	J8	

① **WARNING:** The above natural to propane conversion kits apply **only** to the units listed when equipped with the gas valve listed. Verify the manufacturer's Model No. on the valve with the number listed in this table. If there is a discrepancy, follow the instructions in Paragraph 2 below to select conversion components.

SECTION B - Gas Conversion (cont'd) -- Applies to Reznor® Models UA, XA, XB, XC, XJ; XL, XLB, EEXL, EEXLB, CXL, CXLB; EEDU; PV, PVA, PVB, PVC, PVE, PVJ; RPV, RPBE, RPVE, RPVJ; RCG 225, 300; SC, SCA, SCB, SCE, SCJ; X, XE, PAK, DPAK; RX, RXE, REB; RG, RGB, RGBL; RP, RPB, RPBL; SSCBL; PGBL (and these models with prefix "C", "H", or "HC")

2. Conversion Components for Models without Conversion Kits

If the heater being converted is *not* listed in Tables 1 and 2 on page 3, follow STEPS 1-6 below to select conversion components.

Add STEP 7 (pages 12-14), if the unit being converted is one of the following Models:

PV, PVA, PVB, PVC, PVE, PVJ;

RPV, RPBE, RPVE, RPVJ;

RCG 225, 300;

SC, SCA, SCB, SCE, SCJ;

X, XE, PAK, DPAK;

RX, RXE, REB;

RG, RGB, RGBL;

RP, RPB, RPBL

(and these models with prefix "C", "H", or "HC").

When component selection is completed, the items selected to construct a "conversion kit" should include:

- Step 1** - Spring Regulator or Valve
- Step 2** - Pilot Orifice
- Step 3** - Burner Orifices
- Step 4** - Burner Air Shutters (natural to propane only)
- Step 5** - Conversion Tape and/or Disk
- Step 6** - Ignition Controller (natural to propane with spark pilot only)
- Step 7** - Carryover Components (when required)

NOTE: If the unit being converted has multiple furnace sections, order all parts for each furnace.

REPLACEMENT PARTS: The manufacturer reserves the right to substitute a functional replacement valve for valves listed. Items removed cannot be returned for credit as they are classified as used material.

STEP 1: Select Spring Regulator Kit or Valve

To select components needed to "change" the valve, go to the Table for the unit being converted:

Type of Valve on the Heater	Model No. Suffix	See Table
Single-Stage	None	3, page 5
Mechanical Modulation (without a bypass valve)	M	4A, page 6
Mechanical Modulation with a Bypass Valve	MB	4B, page 6
Two-Stage Valve with Match-Lit Pilot	2	5A, page 7
Two-Stage Valve with Spark Pilot	2 or 2E	5B, page 7
Electronic Modulation with 50% turndown	MV	6, page 8

NOTE: If Serial Number Valve Code is not listed in TABLE 3, components to convert to other gas are no longer available from Reznor.

TABLE 3 - Spring Regulator or Valve Required to Convert Units with Single-Stage Gas Valve

With Serial No. Safety Pilot Code (Serial No. Codes apply to original equipment.)	With Serial No. Valve Code	To Convert Single-Stage Valve from Propane to Natural	ⓐ To Convert Single-Stage Valve from Natural to Propane
4, 8, 28, 30, 31	1-6, 8-9, 01, 02, 09, 10, 13, 14, 16-19, 37, 38, 42, 55, 68, B1	① Change valve to P/N 88242 (JC H91LG-8), 3/4"	Remove the pressure regulator from the heater.
	7, 03-05, 12, 25, 39, 41, 43, 44, 45, 52-54, 66, 67, B2, B3, B5	① Change valve to P/N 112922 (J91MG-6D), 1"	
	15, 40, 46-48, 50, 57	Parts to convert are not available from Reznor.	
9, 13, 19, 30, 31	20, 21, 33, 34, 35, 36, 69, D7	Sizes 25-250 ①ⓐ Change valve to P/N 96300 (W/R 36C03-211), 1/2"	①ⓐ Change valve to P/N 96303 (M/H V800M7017, 1/2"x 3/4"
		Sizes 300-400 ①ⓐ Change valve to P/N 96301 (M/H V800M7009), 3/4"	
9, 13, 19, 31, 33, 34, 40, 41, 42	70, 71, 72, 73, 74	Parts to convert are not available from Reznor	Parts to convert are not available from Reznor
31	83, 84, E9	①ⓐ Change valve to P/N 96300 (W/R 36C03-211), 1/2"	① Change valve to P/N 82396 (W/R 36C013219), 1/2"
ⓐ40, ⓐ41, 42, 46, 47, ⓐ62, 63, 65, ⓐ66	A5, A6, A7, A8, C6, E4, E5, F5, H9	Sizes 75-250 Change valve to P/N 121598 (M/H VR8304M2808), 1/2"	① Change valve to P/N 121600 (M/H VR8304H3802), 1/2"
		Sizes 300-400 ① Change valve to P/N 89397 (M/H WR 36C68-441), 3/4"	
30, 31, ⓐ40, ⓐ41, 42, 47, ⓐ62, 63	A4, A9, B6, B7, B8, B9, C1, C2, C3, C4, E8, G2, G3, G4, G5, G6, G7, H3, H4	Add P/N 51572 , Spring Regulator Kit (R82445)	Add P/N 65291 , Spring Regulator Kit (R82431)
	J5, J6	Add P/N 90203 , Spring Regulator Kit (R78248)	Add P/N 90202 , Spring Regulator Kit (R78244)
31, ⓐ62, 63, 65, ⓐ66	C5, H1, J7, J9, K7, K9, M5	Add P/N 90204 , Spring Regulator Kit (M/H 391936)	Add P/N 51749 , Spring Regulator Kit (M/H 391937)
30	C6	—	①ⓐ Change valves to P/N 96303 (M/H V800M7017, 1/2"x 3/4"
44, 45, 46, 48, 50, 51, 52, 53, 54, 55, 56	B4, D2, D3, F4, F9, G1	Use P/N 91169 , G65 replacement kit, includes natural gas valve, ignition controller with lockout, and propane regulator spring conversion kit.	
31, ⓐ62, 63, 65, ⓐ66	G8, G9, H2, J8, ⓐK1, K6, M6, ⓐM8	Add P/N 82525 , Spring Regulator Kit (W/R F92-0656)	Add P/N 82524 , Spring Regulator Kit (W/R F91-0659)
31, ⓐ62, 63, 65, ⓐ66, 71	K5, K8, M4, ⓐM7, Q2, Q3, Q4, U2, U3, U6, U7, W8, W9	Add P/N 98721 , Spring Regulator Kit (M/H 394588)	Add P/N 98720 , Spring Regulator Kit (M/H 393691)
71	T9, U1	Add P/N 148059 , Spring Regulator Kit (Robertshaw #A54301)	Add P/N 148058 , Spring Regulator Kit (Robertshaw #A54300)

① May require field-furnished reducers. In addition, we reserve the right to substitute a functional replacement valve.
 ② When converting indoor units with spark pilot (indoor and outdoor units in Canada) from natural to propane, change ignition controller to **P/N 97547**, J/C G770NGC-4 ignition controller with lockout. (Ignition conversion kits are on page 20.)
 ③ Valve change requires a male compression nut, **P/N 9664** (Baso #43283-2), for 1/4" pilot tubing connection (remove pilot tubing supplied with the new valve).
 ④ ⑤ If used on natural gas units equipped with Maxitrol control systems, see Table 6.
 ④ ⑤ Use spring regulator kit to convert to natural gas on sizes up to 165 only. For Sizes 200 and 250, change valve to **P/N 121599**. For Sizes 300, 350, and 400, change valve to **P/N 96309**.

STEP 1 (cont'd) - Select Valve or Regulator Spring Kit

TABLE 4A - Valves Required to Gas Convert Units with Mechanical Modulation Gas Valve* (without bypass valve)					
From Propane to Natural			From Natural to Propane		
Pilot Code	Valve Code	Change Mechanical Modulation Gas Valve	Pilot Code	Valve Code	①Change Mechanical Modulation Gas Valve
40, 47, 62, 63, 65, 66	F8, H8	Valves identified by these valve codes are no longer available from Reznor. Contact valve manufacturer for functional replacement for conversion to natural gas.	40, 47, 62, 63, 65, 66	F6, F7	Valves identified by these valve codes are no longer available from Reznor. Contact valve manufacturer for functional replacement for conversion to propane gas.
65, 66	N3, N4	Valves no longer available for natural or propane gas. See Note ③.	65, 66	N1, N2	Valves no longer available for natural or propane gas. See Note ③.
	R9②	Change valve to P/N 131453 , Robertshaw 3B0-341-A04		R7②	Change valve to P/N 131454 , Robertshaw 3B0-342-A04
	S1②	Change valve to P/N 131455 , Robertshaw 5N7-341-A04		R8②	Change valve to P/N 131456 , Robertshaw 5N7-342-A04

* Mechanical modulation gas valve without bypass is identified with "M" as the Model suffix (Example: RP300-M)

① If Serial No. pilot code is 40, 62 or 66, change ignition controller to **P/N 97547**, J/C G770NG-4, ignition controller with lockout (Required for indoor propane models only in U.S.; for all propane models in Canada. Ignition controller kits are on page 20). See Step 6.

② Both natural and propane gas manifolds include a single-stage solenoid valve in series with the modulating valve. Do not remove the solenoid valve.

③ A single mechanical modulation valve for the valve codes listed is no longer available. **WARNING: Do not replace an existing mechanical modulation valve with a mechanical modulation valve Code R7, R8, R9 or S1 only;** unsafe condition will result. Dual functional replacement valves (mechanical modulation plus either a solenoid valve or a single-stage valve depending on the application) are available for most sizes. Select the mechanical modulation and single-stage or solenoid valves for converting a heater listed below by selecting the valves listed for the gas being used. Field-furnished pipe nipples will be required; install valves in series with single-stage or solenoid valve first and mechanical modulation valve second in the gas stream. The chart below lists dual functional replacement valves by model/size/gas type combinations. When functional replacement valves are not available from Reznor, contact valve manufacturer concerning availability of functional replacement.

*Model Series	Sizes	Gas	Original Valve Code (see Serial No. on Furnace Rating Plate)	P/N's (and Codes) of Valves that can be used as Functional Replacements for the Mechanical Modulation Valve (two replacement valves are always required)
X/RX	75-350**	Natural	N1	P/N 131453, Robertshaw 3B0-341-A04, & solenoid valve, P/N 88242 (J/C #H91LG-8)
X/RX	400	Natural	N1	Replacement not available from Reznor
X/RX	75-400	Propane	N3	P/N 131454, Robertshaw 3B0-342-A04, & solenoid valve, P/N 88242 (J/C #H91LG-8)
RG/RP/SSC	75-225	Natural	N1, N7, N8, P6, Q7	P/N 131453, Robertshaw 3B0-341-A04, & P/N 96311, W/R 36C68-325
RG/RP/SSC	250-400	Natural	N1	P/N 131455, Robertshaw 5N7-341-A04, & P/N 89398, W/R 36C68-442
RG/RP/SSC	250-350**	Natural	N8, N9, P6, Q5	P/N 131453, Robertshaw 3B0-341-A04, & P/N 89398, W/R 36C68-442
RG/RP/SSC	400	Natural	N9, Q5	Replacement not available from Reznor
RG/RP/SSC	75-225	Propane	N3, N5, N6, Q9	P/N 131454, Robertshaw 3B0-342-A04, & P/N 96311, W/R 36C68-325
RG/RP/SSC	250-400	Propane	N3	P/N 131456, Robertshaw 5N7-342-A04, & P/N 89398, W/R 36C68-442
RG/RP/SSC	250-400	Propane	N6	P/N 131454, Robertshaw 3B0-342-A04, & P/N 89398, W/R 36C68-442

*Only duct furnace model identification of indirect-fired units appears here and on the rating plate. If the duct furnace is part of a Model XE, RGB, RPB, PAK, PGBL, RGBL, RPBL or SSCBL packaged furnace/blower system, valve replacement requirements are the same as for the component duct furnaces.

**On duct furnace Sizes 300 and 350, dual functional replacement valves require a minimum natural gas supply pressure of 7" w.c.

TABLE 4B - Gas Conversion Cross-Reference for Mechanical Modulation with a Bypass Valve* (Applies to heaters with pilot codes listed in Table 4A. Change mechanical modulation valve. Install spring kit to convert bypass valve.)

Valve Code	Includes Valves	Action Required to Convert from Propane to Natural	Valve Code	Includes Valves	Action Required to Convert from Natural to Propane (⊕ in Table 4A)
N5	N3	Single M/M valve not available; see ③ Table 4A	N7	N1	Single M/M valve not available; see ③ Table 4A
	M7	Add spring kit, P/N 98721 , MH 394588		M4	Add spring kit, P/N 98720 , MH 393691
N6	N3	Single M/M valve not available; see ③ Table 4A	N8	N1	Single M/M valve not available; see ③ Table 4A
	M8	Add spring kit, P/N 82525 , W/R F92-0656		M5	Add spring kit, P/N 51749 , MH 391937
O4 or P4	N4	Single M/M valve not available; see ③ Table 4A	N9	N1	Single M/M valve not available; see ③ Table 4A
	M7	Add spring kit, P/N 98721 , MH 394588		M6	Add spring kit, P/N 82524 , W/R F91-0569
O5 or P5	N4	Single M/M valve not available; see ③ Table 4A	O1	N2	Single M/M valve not available; see ③ Table 4A
	M8	Add spring kit, P/N 82525 , W/R F92-0656	or P1	M4	Add spring kit, P/N 98720 , MH 393691
Q9	N3	Single M/M valve not available; see ③ Table 4A	O2	N2	Single M/M valve not available; see ③ Table 4A
	Q4	Add spring kit, P/N 98721 , MH 394588	or P2	M5	Add spring kit, P/N 51749 , MH 391937
R1	N4	Single M/M valve not available; see ③ Table 4A	O3	N2	Single M/M valve not available; see ③ Table 4A
	Q4	Add spring kit, P/N 98721 , MH 394588	or P3	M6	Add spring kit, P/N 82524 , W/R F91-0569
S4	R9	Change valve to P/N 131453 , Robertshaw 3B0-341-A04	P6	N1	Single M/M valve not available; see ③ Table 4A
	M8	Add spring kit, P/N 82525 , W/R F92-0656		Q3	Add spring kit, P/N 98720 , MH 393691
			P7	N2	Single M/M valve not available; see ③ Table 4A
				Q3	Add spring kit, P/N 98720 , MH 393691
			Q5	N1	Single M/M valve not available; see ③ Table 4A
				J8	Add spring kit, P/N 82524 , W/R F91-0569

TABLE 4B (cont'd) - Gas Conversion Cross-Reference for Mechanical Modulation with a Bypass Valve* (Applies to heaters with pilot codes listed in Table 4A. Change mechanical modulation valve. Install spring kit to convert bypass valve.)

Valve Code	Includes Valves	Action Required to Convert from Propane to Natural	Valve Code	Includes Valves	Action Required to Convert from Natural to Propane (ⓐ in Table 4A)
S5	S1	Change valve to P/N 131455 , Robertshaw 5N7-341-A04	Q6	N2	Single M/M valve not available; see ⓐ Table 4A
	K1	Add spring kit, P/N 82525 , W/R F92-0656		J8	Add spring kit, P/N 82524 , W/R F91-0569
S8	R9	Change valve to P/N 131453 , Robertshaw 3B0-341-A04	Q7	N1	Single M/M valve not available; see ⓐ Table 4A
	M8	Add spring kit, P/N 82525 , W/R F92-0656		Q2	Add spring kit, P/N 98720 , MH 393691
	Q4	Add spring kit, P/N 98721 , MH 394588	Q8	N2	Single M/M valve not available; see ⓐ Table 4A.
S9	R9	Change valve to P/N 131453 , Robertshaw 3B0-341-A04		S2	R7
	K1	Add spring kit, P/N 82525 , W/R F92-0656	S3	M8	Add spring kit, P/N 82524 , W/R F91-0569
	S7	* Mechanical modulation with a bypass valve is identified with "MB" as the Model suffix (Example: RG200-MB)		S6	R8
K1			Add spring kit, P/N 82524 , W/R F91-0569		
R7			Change valve to P/N 131454 , Robertshaw 3B0-342-A05		
S7	* Mechanical modulation with a bypass valve is identified with "MB" as the Model suffix (Example: RG200-MB)	S6	M8	Add spring kit, P/N 82524 , W/R F91-0569	
			Q2	Add spring kit, P/N 98720 , MH 393691	
			R7	Change valve to P/N 131454 , Robertshaw 3B0-342-A05	
S7	* Mechanical modulation with a bypass valve is identified with "MB" as the Model suffix (Example: RG200-MB)	S6	K1	Add spring kit, P/N 82524 , W/R F91-0569	
			J8	Add spring kit, P/N 82524 , W/R F91-0569	

TABLE 5A - Valves to Gas Convert Units with Two-Stage Valve* and Match-Lit Pilot

From Propane to Natural			From Natural to Propane		
Pilot Code	Valve Codeⓐ	Change Two-Stage Gas Valve	Pilot Code	Valve Codeⓐ	Change Two-Stage Gas Valve
30, 31	61, 63, F2, M3ⓐ, P9	ⓐⓑ For all sizes, change valve to P/N 115351 , W/R 36C40, 3/4" (Note: Field-provided reducer is required for 1/2"	30, 31	58, 59, 61,D4, F1, M1, M2ⓐ, P8	ⓐ All sizes, change valve to P/N 115352 , W/R 36C41, 3/4" (Note: Field-provided reducer is required for 1/2" manifold on
*Two stage is identified with a suffix "2" in the Model No. (Example: XE300-2)					
ⓐ If Serial No. pilot code is 30 and valve code is 63, remove A100 safety pilot switch from heater.					
ⓑ If Serial No. pilot code is 30 and valve code is 61, remove A100 safety pilot switch and pressure regulator from heater.					
ⓒ For all Serial No. valve codes except M1, M2, M3, valve change requires a male compression nut, P/N 9664 (Baso #43283-2) for 1/4" pilot tubing connection (remove pilot tubing fitting supplied with the new valve).					

TABLE 5B - Valves to Gas Convert Units with Two-Stage Valve* and Spark Pilot

From Propane to Natural			From Natural to Propane		
Pilot Code	Valve Code	Change Two-Stage Gas Valve	Pilot Code	Valve Code	Change Two-Stage Gas Valve
40, 41, 42, 47, 62,63, 65, 66	61, 63, 97, 99, A2, C9, D1, E3, F3, H7, M9, X1, X4	ⓐ For heater sizes 75-250, change valve to P/N 177396 , MH VR8204Q2418, 1/2"	40, 41, 42, 47, 62, 63, 65, 66	61, 96, 98, A1, E1, E2, C7, C8, H5, H6, X2, X3	ⓐⓑⓒⓓ All sizes, change valve to P/N 177398 , VR8304Q4412, 1/2" x 3/4" (Note: Field-provided reducer is required for 3/4" manifold on Sizes 300-400.)
		ⓐⓓ For heater sizes 300-400, change valve to P/N 177397 , MH VR8304Q4404, 3/4" (Note: Field-provided reducer fitting is required for 1/2" manifold.)			
*Two-stage units are identified with a suffix "2" in the Model No. (Example: RG300-2)					
ⓐ If Serial No. pilot code is 40, 41, 62 or 66, change ignition controller to P/N 97547 , G770GC-4, ignition controller with lockout. (Lockout is required for propane indoor models only in U.S. and for all propane models in Canada. Ignition conversion kits are listed on page 20.) See Step 6.					
ⓑ If Serial No. pilot code is 96, 98, A1,C7, or C8, remove H91 pilot line solenoid valve from the heater.					
ⓒ Requires field compression fitting, P/N 9664 (Baso #43283-2), for 1/4" pilot tubing connection. Remove pilot tubing fitting supplied with valve.					
ⓓ EEDU 300, 350, and 400 - When replacing a valve with a valve code prior to X1, X2, X3, or X4, a new valve bracket is required. Order P/N 194152 .					

STEP 1 (cont'd) - Select Valve or Regulator Spring Kit

TABLE 6 - Valves to Gas Convert Units with Electronic Modulation* and Spark Pilot					
From Propane to Natural			From Natural to Propane		
Pilot Code	Valve Code	Change Maxitrol Regulator and Convert Solenoid Valve	Pilot Code	Valve Code	Change Maxitrol Regulator and Convert Solenoid Valve
40, 41, 42, 47, 62, 63, 65, 66	U8, U9	For heater sizes 75-200, change valve to P/N 96311 , W/R 36C68-325; change Maxitrol regulator to P/N 42278 , Maxitrol MR410, 1/2"	40, 41, 42, 47, 62, 63, 65, 66	M8, K1	For heater sizes 75-200, change valve to P/N 157167 , W/R 36C68-334; change Maxitrol regulator to P/N 156462 , Maxitrol MR410H-1, 1/2"; and add time delay relay, P/N 89661 , to prevent delayed ignition (consult factory for wiring diagram).
		For heater sizes 225-400, change valve to P/N 89398 , W/R 36C68-442; change Maxitrol regulator to P/N 42280 , Maxitrol MR510, 3/4"(Note: Field-provided reducer fitting is required for 1/2" manifold.)			For heater sizes 225-400, change valve to P/N 157168 , W/R 36C68-480; change Maxitrol regulator to P/N 156464 , Maxitrol MR510H-1, 3/4"; and add time delay relay, P/N 89661 , to prevent delayed ignition (consult factory for wiring diagram).
*Electronic modulation control is identified with an "MV" as the Model suffix (Example: RP400-MV).					
① If Serial No. pilot code is 40, 41, 62 or 66, change ignition controller to P/N 97547 , G770GC-4, ignition controller with lockout. (Lockout is required for propane indoor models only in U.S. and for all propane models in Canada. Ignition conversion kits are listed on page 20.) See Step 6 .					

STEP 2 - Select Natural or Propane Pilot Orifice from Table 7

Note: Select spark pilot orifice when heater Serial No. Safety Pilot Code is 40, 41, 42, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 62, 63, 65, or 66; select standing pilot orifice when heater Serial No. Safety Pilot Code is 3, 8, 9, 28, 30, or 31.

TABLE 7 - Pilot Orifices	FOR STANDING PILOT				FOR SPARK PILOT			
	Propane to Natural		Natural to Propane		Propane to Natural		Natural to Propane	
	Type	P/N	Type	P/N	Type	P/N	Type	P/N
① Models (Quantity required is always 1.)								
XL, XLB 30-105;②UA 45-105	(4213)	40966	(4207)	40965	③(4211)	42089	③(4209)	37801
					④(7715)	93973	④(4709)	93974
XL, XLB, CXL, CXLB 125-400	(6218)	46392	(4211)	42089	(7221)	63088	(4209)	37801
EEXL, EEXLB, CEEXL CEEXLB 30-105	--	--	--	--	(7715)	93973	(4709)	93974
EEXL, EEXLB, CEEXL CEEXLB 125-400; EEDU 75-400 prior to Series 6	--	--	--	--	(7221)	63088	(4209)	37801
EEDU 75-400 Series 6	--	--	--	--	(9731)	103034	(9733)	98695
X, XA, XB, XC, XD, XE, XJ, CX, CXE, PAK, CPAK	Horizontal (6218)	46392	(4211)	42089	(7221)	63088	(4209)	37801
	⑤Vertical (6221)	44048	(4211)	42089	(7221)	63088	(4209)	37801
SC, SCA, SCB, SCE Series 6	--	--	--	--	(7715)	93973	(9715)	126105
RX, REB, RXE, RXJ, CRX, CREB, CRXE; SC, SCA, SCB, SCE prior to Series 6 ; RPV, RPVE, RPBE, CRPV, CRPBE, CRPVE Series 6 and 7 ; RG, CRG, RGB, CRGB, RP, CRP, RPB, CRPB, RGBL, CRGBL, RPBL, CRPBL, SSCBL, PGBL	--	--	--	--	(7223)	63397	(4209)	37801
RPV, RPBE, RPVE, RPVJ, CRPV, CRPBE, CRPVE prior to Series 6 and RCG 7-1/2, 10 ton	--	--	--	--	(6221)	44048	(4209)	37801
RCG 2-5 ton with vertical pilot	--	--	--	--	(6221)	44048	(4211)	42089
RCG 2-5 ton with horizontal pilot	--	--	--	--	(7221)	63088	(4209)	37801
① Also applicable to these models with suffix letter "H".								
② For UA Series starting December 1973 (Serial No. Date Code YL). Components to convert UA Series manufactured prior to December 1973 are not available.								
③ Penn Baso spark pilot orifice applies to XL30-105 prior to Series 3 units and XL30-105 Series 3 units with serial number suffix "B". (NOTE: Penn Baso and General Controls pilot orifices are not interchangeable.)								
④ General Controls spark pilot orifice applies to XL, XLB 30-105 Series 3 and 5								
⑤ Manufactured prior to September 1973.								

STEP 3 - Select Main Burner Orifices from Table No. 8, 9, 10, 11A, 11B or 12

NOTE: Burner orifice tables are *not applicable* for high altitude operation. When installation is above an elevation of 2000 feet, the unit must be de-rated. Consult your Reznor Representative for proper orifice size.

TABLE 8 - Applies to XL, XLB, EEXL, EEXLB, (H)EEDU Only					
NOTE: Do not use on Models with prefix "C"; see Table 9 or 10.					
Model Size	Orifice Qty	Propane to Natural		Natural to Propane	
		Drill Size	P/N	Drill Size	P/N
30	3	53	9789	63	40415
45	3	49	39651	1.15mm	63922
60	4	49	39651	1.15mm	63922
XL, XLB, EEXL, EEXLB 75	5	49	39651	1.15mm	63922
EEDU 75	4	45	38678	1.20mm	63003
100	4	41	11792	1.45mm	61652
105	7	49	39651	1.15mm	63922
125	5	41	11792	1.45mm	61652
140	5	38	45870	1.55mm	61653
150	6	41	11792	1.45mm	61652
170	6	38	45870	1.55mm	61653
200	7	38	45870	1.55mm	61653
225	8	38	45870	1.55mm	61653
250	9	39	45871	1.55mm	61653
300	11	39	45871	53	9789
350	13	39	45871	53	9789
400	15	39	45871	53	9789

TABLE 9 - Applies to CEEXL, CEEXLB Only					
Model Size	Orifice Qty	Propane to Natural		Natural to Propane	
		Drill Size	P/N	Drill Size	P/N
30	3	53	9789	63	40415
45	3	49	39651	1.15mm	63922
60	4	49	39651	1.15mm	63922
75	5	49	39651	1.15mm	63922
105	7	50	39652	1.15mm	63922
125	5	41	11792	1.45mm	61652
140	5	38	45870	1.55mm	61653
170	6	38	45870	1.55mm	61653
200	7	42	84437	1.55mm	61653
225	8	39	45871	1.55mm	61653
250	9	40	87391	53	9789
300	11	39	45871	53	9789
350	13	39	45871	53	9789
400	15	40	87391	53	9789

TABLE 10 - Applies to CXL, CXLB Only					
Model Size	Orifice Qty	Propane to Natural		Natural to Propane	
		Drill Size	P/N	Drill Size	P/N
30	3	53	9789	63	40415
45	3	1.8mm	86512	57	40416
60	4	1.8mm	86512	57	40416
75	5	1.8mm	86512	57	40416
105	7	1.8mm	86512	57	40416
140	5	42	84437	1.45mm	61652
170	6	42	84437	1.45mm	61652
200	7	42	84437	1.45mm	61652
225	8	42	84437	1.45mm	61652
250	9	42	84437	1.45mm	61652
300	11	42	84437	1.45mm	61652
350	13	42	84437	1.45mm	61652
400	15	42	84437	1.45mm	61652

TABLE 11A - Applies to Models UA, X, XA, XB, XC, XE, XJ, XR, PAK, RX, REB, RXE, RXJ, RCG, RG, RGB, RGBL, PGBL					
NOTE: Do not use on Models with prefix "C"; see Table 12.					
Model Size	Orifice Qty	Propane to Natural		Natural to Propane	
		Drill Size	P/N	Drill Size	P/N
②75	3	41	11792	1.45mm	61652
③75	4	45	38678	1.20mm	63003
100	4	41	11792	1.45mm	61652
RCG 125	6	43	11828	55	11830
125	5	41	11792	1.45mm	61652
150	7	43	11828	55	11830
RCG 150	6	41	11792	1.45mm	61652
175	7	41	11792	1.45mm	61652
200	9	43	11828	55	11830
225	9	41	11792	1.45mm	61652
250	12	44	11833	55	11830
300	12	41	11792	1.45mm	61652
350	14	41	11792	1.45mm	61652
400	16	41	11792	1.45mm	61652
D300	16	45	38678	1.20mm	63003
UA 40④	4	53	9789	63	40415
UA 60④	4	48	40414	57	40416
UA 75④	5	48	40414	57	40416
UA 90④	6	48	40414	57	40416
UA 100/105	④ 7	48	40414	57	40416

① Also applies to Models listed with prefix "H".
 ② Applies to Size 75 with three burners
 ③ Applies to Size 75 with four burners.
 ④ For UA Series beginning 12/73 (Date Code YL) Components to convert UA Series manufactured prior to 12/73 are not available.

STEP 3 (cont'd) - Select Main Burner Orifices from Table No. 8, 9, 10, 11A, 11B or 12

NOTE: Burner orifice tables are *not applicable* for high altitude operation. When installation is above an elevation of 2000 feet, the unit must be de-rated. Consult your Reznor Representative for proper orifice size.

TABLE 11B - Applies to Models RPV, RPBE, RPVE, RPVJ, SC, SCA, SCB, SCE, SCJ, PV, PVA, PVB, PVC, PVD, PVE, PVJ, RP, RPB, RPBL					
NOTE: Do not use on Models with prefix "C"; see Table 12.					
① Model Size	Orifice Qty	Propane to Natural		Natural to Propane	
		Drill Size	P/N	Drill Size	P/N
100	4	41	11792	1.45mm	61652
125	5	42	84437	1.45mm	61652
150	7	44	11833	55	11830
175	7	42	84437	1.45mm	61652
200	9	43	11828	55	11830
225	9	42	84437	1.45mm	61652
250	12	44	11833	55	11830
300	12	42	84437	1.45mm	61652
350	14	42	84437	1.50mm	94310
				② 1.45mm	61652
400	16	42	84437	1.45mm	61652
D300	16	45	38678	1.20mm	63003

① Also applies to Models listed with prefix "H".
 ② Applies to Size 350 of Model (H)RPV Series 5 and Models (H)SC(A,B,E) Series 5 and 6

TABLE 12 - Applies to Models CX, CXE, CRX, CPAK, CREB, CRXE, CRPV, CRPBE, CRPVE, CRG, CRGB, CRP, CRPB, CRGBL, CRPBL					
① Model Size	Orifice Qty	Propane to Natural		Natural to Propane	
		Drill Size	P/N	Drill Size	P/N
75	4	45	38678	1.20mm	63003
100	4	43	11828	55	11830
125	5	43	11828	55	11830
175	7	43	11828	55	11830
225	9	43	11828	55	11830
250	12	45	38678	1.20mm	63003
300	12	43	11828	55	11830
350	14	43	11828	55	11830
400	16	43	11828	55	11830

① Also applies to these "C" Models listed with prefix "H".

STEP 4 - When Converting From Natural to Propane Gas, Select a Burner Air Shutter Assembly from Table 13

NOTES: Do not order burner air shutters if the natural gas unit is already equipped with optional factory-installed air shutters. Models XL, XLB, EEXL, EEXLB, CXL, CXLB, CEEXL, CEEXLB Sizes 30-105 do not require burner air shutters. Models SC, SCA, SCB, SCE Series 1 only do not require the addition of burner air shutters (burner air shutters were standard). Burner air shutters are required on all other models listed when converting to propane gas.

TABLE 13 - Burner Air Shutter Assembly Part Numbers												
Models	75-100	125	140	150	170	175	200	225	250	300	350	400
XL, XLB, CXL, CXLB, EEXL, CEEXL, EEXLB, CEEXLB	--	46171		46172		--	46173	46174	46175	46176	46177	46178
EEDU, HEEDU - no assy P/N; order both air shutter assy and guide	165684	165685		--	165686	--	165687	165688	165689	165690	165691	165692
	55552	46109			46113		46115	46117	46119	46121	46123	46125
① X, XA, XB, XC, XD, XE, PAK, RX, REB, RXE, RXJ, RPV, RPVE, RPBE, RPVJ, SC, SCA, SCB, SCE, SCJ, CX, CXE, CRX, CREB, CRXE, CRPV, CRPBE, CRPVE, RG, CRG, RGB, CRGB, RGBL, CRGBL, RP CRP, RPB, CRPB, RPBL, CRPBL	15681	26562	--	26563	--	26563	15683	15683	15685	② 15685	26693	② 26885
RCG	57993	46172	--	46172	--	--	--	15683	--	15685	--	--

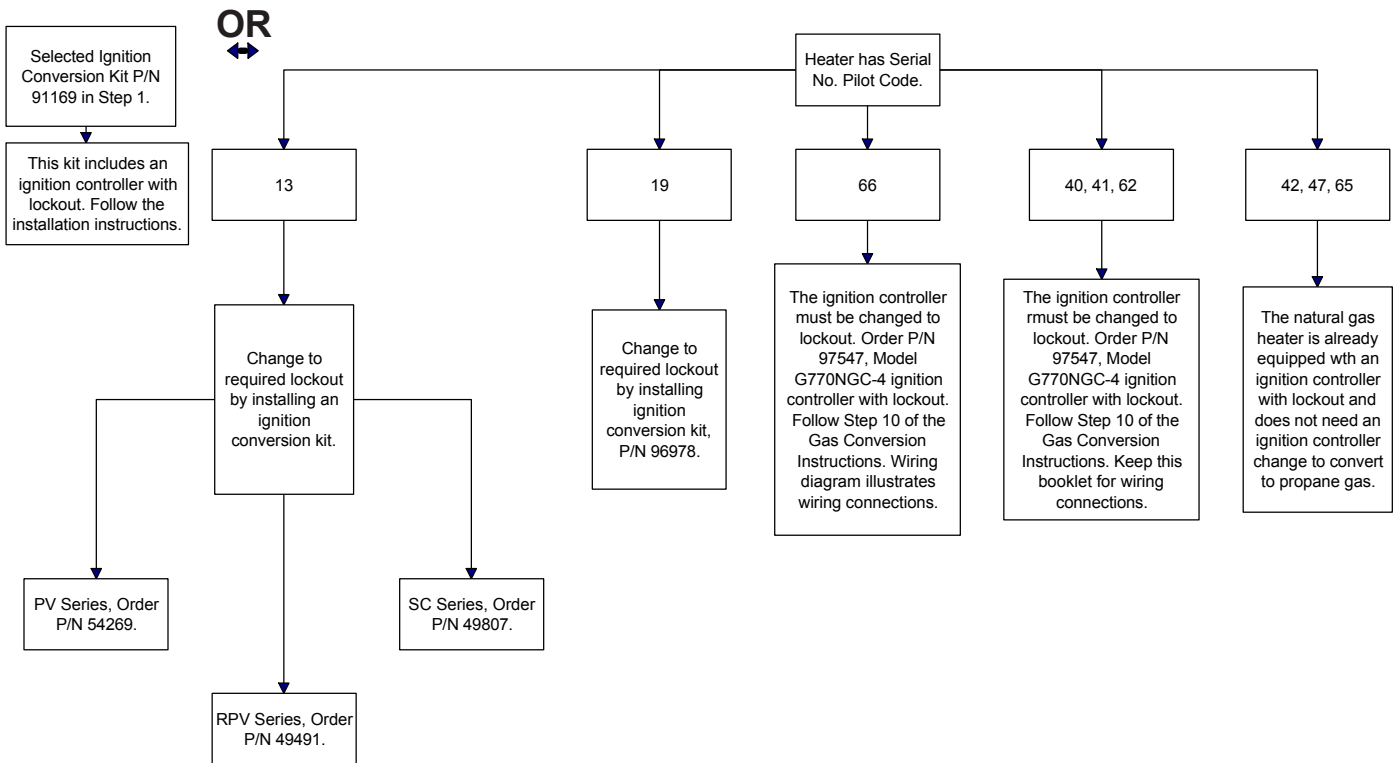
① Also applies to these Models with prefix letter "H".
 ② Assembly listed for Size 400 also applies to Size 300 with "D" prefix (DX, DRX, DRPV, HDX, HDRX, HDRPV)

STEP 5 - Select Conversion Tape or Disk

TABLE 14 - Conversion Label or Disk		
Heater with an A.G.A. Rating Plate or a CSA Rating Plate to ANSI Standards		Heater with a C.G.A. Rating Plate or a CSA Rating Plate to CGA Standards
Propane to Natural Conversion Disk	Natural to Propane Conversion Disk	Conversion Label
P/N 1401	P/N 37752	P/N 64391

STEP 6 - When Converting Indoor (Indoor and Outdoor in Canada) Units with a Spark Pilot to Propane, the Ignition Controller Must Have 100% Lockout

Depending on the safety pilot serial number code and/or the action taken in Step 1 (Valve or Spring Kit Selection), do the following:

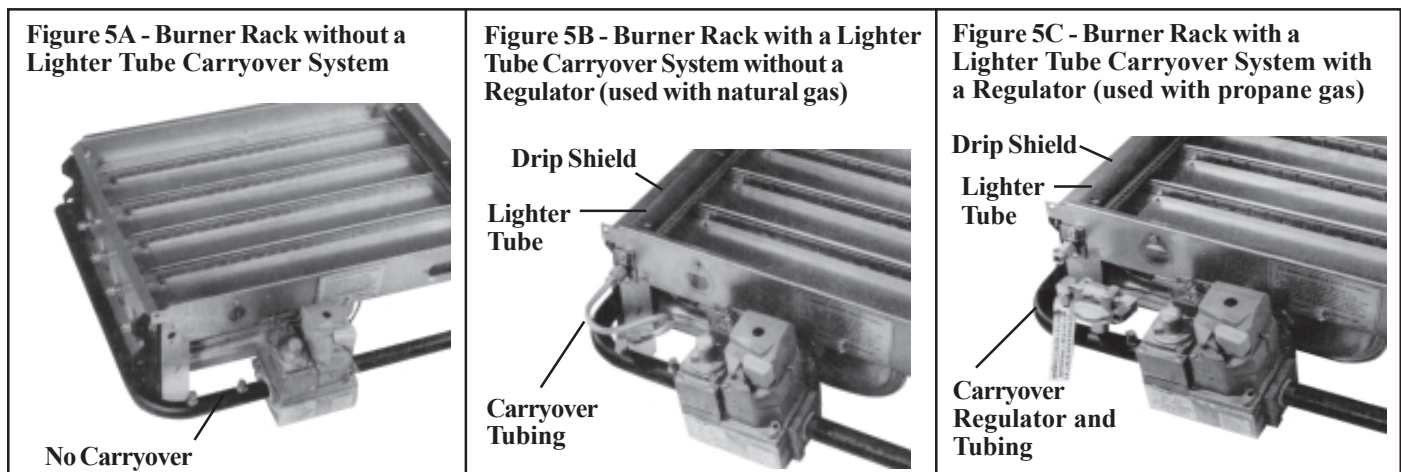


STEP 7 - Select Lighter Tube Carryover Components -- Applies to *all* Models (H)SC, SCA, SCB, SCE, SCJ; PV, PVA, PVB, PVC, PVE; RCG 225 and 300; (H)X, (H)CX, (H)XE, (H)CXE, (C)PAK; (H)RX, (H)CRX, (H)RXE, (H)CRXE, (C)REB; (H)RG, (H)CRG, (H)RGB, (H)CRGB, (C)RGL; (H)RPV, (H)CRPV, (C)RPVE, (C)RPBE, (H)RP, (H)CRP, (H)RPB, (H)CRPB, (C)RPBL when converting to propane gas and *most* when converting to natural gas.

Depending on the model and the date of manufacture:

- Heaters are factory equipped with burners with a carryover system, and that system **needs to be changed** when converting type of gas.
- Heaters are factory equipped with burners with a carryover system, and that system **does not need to be changed** when converting type of gas.
- Heaters are not factory equipped with a lighter tube carryover system, and the **complete system must be added** to the burner rack.



Visually inspect the burner rack to determine whether or not it is factory equipped with a carryover lighter tube system. Figure 5A illustrates a burner rack without a lighter tube carryover system; Figure 5B illustrates a burner rack with a lighter tube carryover system without a regulator (used with natural gas); and Figure 5C illustrates a burner rack with a regulated lighter tube carryover system (used with propane gas).



Lighter tube carryover kits are available for the models listed in Table 16 (also applies to packaged systems that include these duct furnace models). For all other furnace models requiring the addition of a lighter tube system, the components must be ordered separately. Review all of the information in Step 7 and follow the instructions that apply to the unit being converted.

TABLE 16 -- Lighter Tube Carryover Kits for Models (H)X, (H)CX, (H)RX, (H)CRX, (H)RXE, (H)CRXE, (H)REB, (H)CREB, (H)XE, (H)CXE manufactured prior to 11/86 (Date Code ALK)						
Size	Carryover Kit P/N for		Kits for Natural Gas include:		Kits for Propane Gas include:	
	Natural Gas	Propane Gas	Qty	Description	Qty	Description
75/100	92135	92142	1	Lighter Tube Assembly	1	Lighter Tube Assembly
125	92136	92143	1	Drip Shield	1	Drip Shield
150/175	92137	92144	1	Aluminum Tube	1	Carryover Orifice
200/225	92138	92145	1	Carryover Orifice	1	Compression Fitting
250/300	92139	92146	1	Compression Elbow	6	Sheetmetal Screws
350	92140	92147	1	Compression Fitting	1	Regulator Assembly
400	92141	92148	6	Sheetmetal Screws	1	Instruction Sheet
These are NOT gas conversion kits.			1	Instruction Sheet		

For heaters not listed in Table 16 that require the addition of lighter tube carryover components, the lighter tube carryover components must be ordered separately.

<p>Figure 6A - Carryover Lighter Tube and Drip Shield</p>  <p>Drip Shield</p> <p>Carryover Lighter Tube</p>	<p>Figure 6B - Burner Rack with Carryover Lighter Tube and Drip Shield Installed</p>  <p>Carryover Lighter Tube</p> <p>Drip Shield</p>	<p>Carryover Components for Natural Gas Furnaces</p> <p><i>Always needed:</i></p> <ul style="list-style-type: none"> •Carryover Orifice •Brass Elbow •Tubing •Compression Fitting <p><i>Needed only if the "propane" furnace did not have a lighter tube carryover system:</i></p> <ul style="list-style-type: none"> •Carryover Lighter Tube •Drip Shield <p>Carryover Components for Propane Gas Furnaces</p> <p><i>Always needed:</i></p> <ul style="list-style-type: none"> •Carryover Orifice •Regulator Assembly <p><i>Needed only if the "natural" furnace did not have a lighter tube carryover system:</i></p> <ul style="list-style-type: none"> •Carryover Lighter Tube •Drip Shield
---	--	---

When converting from **PROPANE TO NATURAL**, order:

- (1) P/N 93388, Brass Elbow
- (1) P/N 93389, Carryover Tubing, 8-3/4"
- (1) P/N 9664, Compression Fitting

PLUS the items from Table 17 that apply to the furnace being converted.

TABLE 17 - Propane to Natural, Select the Lighter Tube Carryover Parts Listed in Table 17													
Models	Description	75	100	125	150	175	200	225	250	300	350	400	
(H)X, (H)CX, (H)RX, (H)CRX, (H)RXE, (H)CRXE, (H)REB, (H)CREB, (H)XE, (H)CXE Series 6⊕, 7 & 8; all (H)RG, (H)CRG, (H)RGB, (H)CRGB, RGBL, CRGBL, PGBL	Natural Gas Carryover Orifice	P/N	9870	9870	9870	9680	9680	10370	10370	10370	10370	9792	9792
		Drill	70	70	70	65	65	59	59	59	59	54	54
(H)RPVⓈ, (H)RPVE, (H)RPBE, prior to Series 6⊕; (H)CRPV, (H)CRPVE, (H)CRPBE prior to Series 5⊕; PV, PVA, PVB, PVC, PVE, PVJ; and RCG 225 and 300	Carryover Orifice	P/N	--	--	Ⓢ9792	9792	9792	11872	11872	11872	11872	11618	11618
		Drill	--	--	54	54	54	52	52	52	52	48	48
(H)SC, SCA, SCB, SCE, SCJ Series 1, 3, and 5⊕; SSCBL; (For all SC Series 6, See Note ⊕)	Carryover Orifice	P/N	--	--	9680	9680	9680	9680	9680	10370	10370	9792	11872
		Drill	--	--	65	65	65	65	65	59	59	54	52
	Carryover Lighter Tube	P/N	--	--	9859	9821	9821	9783	9783	9747	9747	9711	9520
		Length	--	--	15-1/8"	20-5/8"		26-1/8"		34-7/8"		39-7/8"	45-3/8"
Drip Shield	P/N	--	--	15014	15013	15013	15012	15012	15011	15011	15010	14957	
<p>⊕ (H)X, (H)CX, (H)RX, (H)CRX, (H)XE, (H)CXE, (H)RXE, (H)CRXE, (H)REB, (H)CREB Series 6 units manufactured after 11/86 (Serial No. Date Code ALK). See Table 16 for these furnaces manufactured prior to 11/86.</p> <p>Ⓢ (H)RP, (H)CRP, (H)RPB, (H)CRPB; (H)RPV, (H)CRPV, (H)RPVE, (H)CRPVE, (H)RPBE, (H)CRPBE Series 6; and (H)CRPV, (H)CRPVE, (H)CRPBE Series 5 do not require a carryover orifice change when converting from either propane to natural or natural to propane. When converting to natural gas, remove the regulated carryover assembly and use the original factory-installed carryover orifice.</p> <p>Ⓢ It is necessary to visually inspect an SC Series 1, 3, or 5 heater to determine whether it is already equipped with a lighter tube and drip shield. If the heater does not have a carryover lighter tube and drip shield (see Figures 6A and 6B), order the lighter tube and drip shield listed in Table 17.</p> <p>⊕ Model SC, SCA, SCB, SCE Series 6 - When converting from propane to natural, it is unnecessary to order any additional carryover parts.</p> <p>Ⓢ (H)RPV Size 125 Series 5 only, order carryover orifice P/N 10370, Drill 59.</p>													

STEP 7 - Select Lighter Tube Carryover Components (cont'd)

When converting from **NATURAL TO PROPANE**, order: (1) **P/N 100712**, regulated carryover assembly (illustrated in Figure 7) **PLUS** the items in Table 18 that apply to the unit being converted.

Figure 7 - Regulated Carryover Assembly for Propane Gas (less carryover orifice which differs by size and model) -- P/N 100712 (see component list below)

The regulator is factory set at 1" pressure at the outlet -- DO NOT CHANGE.

Assembly P/N 100712 includes:					
Qty	P/N	Description	Qty	P/N	Description
1	1436	Brass Fitting	1	11892	Steel Tubing, 1/4" OD x 1-1/4" lg
2	93388	Bras Elbow	1	11935	Carryover Regulator Warning Tag
3	9664	Compression Fitting	1	9681	Tubing 1/4"OD x 5-1/2" lg
1	11294	Regulator, Maxitrol #RV-12 (replaces Maxitrol #RV-10)	1	101147	Instruction Sheet, Form RZ 704

TABLE 18 - For Natural to Propane, Select the Lighter Tube Carryover Components Listed in Table 18

Models	Description		75	100	125	150	175	200	225	250	300	350	400
			P/N	P/N	P/N	P/N	P/N	P/N	P/N	P/N	P/N	P/N	P/N
(H)X, (H)CX, (C)PAK, (H)RX, (H)CRX, (H)RXE, (H)CRXE, (H)REB, (H)CREB, (X)XE, (H)CXE Series 6 Ⓞ and 7 (Series 8 see below) ; all (H)RG, (H)CRG, (H)RGB, (H)CRGB; (C)RGLB	Propane Gas	P/N	9870	9870	9870	9680	9680	9680	9680	10370	10370	9791	9791
		Drill	70	70	70	65	65	65	65	59	59	56	56
(H)RPV, (H)RPVE, (H)RPBE, prior to Series 6 Ⓞ ; (H)CRPV, (H)CRPVE, (H)CRPBE prior to Series 5 ; PV, PVA, PVB, PVC, PVE, PVJ; and RCG 225 & 300	Carryover Orifice	P/N	--	--	9680	9680	9680	9680	9680	9792	9792	9792	9792
		Drill	--	--	65	65	65	65	65	54	54	54	54
(H)SC, SCA, SCB, SCE, SCJ Series 1, 3, and 5 Ⓞ ; SSCBL; (H)SC, SCA, SCB, SCE Series 6 Ⓞ ; (H)X, (H)XE, PAK Series 8 Ⓞ ; PGBL	Carryover Lighter Tube	P/N	--	9870	9870	9870	9870	9680	9680	10370	10370	38274	38274
		Drill	--	70	70	70	70	65	65	59	59	57	57
	Drip Shield	P/N	--	9899	9859	9821	9821	9783	9783	9747	9747	9711	9520
		Length	--	12-3/8"	15-1/8"	20-5/8"		26-1/8"		34-7/8"		39-7/8"	45-3/8"
		P/N	--	15015	15014	15013	15013	15012	15012	15011	15011	15010	14957

Ⓞ (H)X, (H)CX, (H)RX, (H)CRX, (H)XE, (H)CXE, (H)RXE, (H)CRXE, (H)REB, (H)CREB Series 6 units manufactured after 11/86 (Serial No. Date Code ALK). See Table 16 for these furnaces manufactured prior to 11/86.

Ⓜ (H)RP, (H)CRP, (H)RPB, (H)CRPB; (H)RPV, (H)CRPV, (H)RPVE, (H)CRPVE, (H)RPBE, (H)CRPBE Series 6; and (H)CRPV, (H)CRPVE, (H)CRPBE Series 5 do not require a carryover orifice change when converting from either propane to natural or natural to propane. When converting to propane, they do require the addition of the regulated carryover assembly (P/N 100712) using the original factory-installed carryover orifice.

Ⓝ It is necessary to visually inspect an SC Series 1, 3, or 5 heater to determine whether it is already equipped with a lighter tube and drip shield. If the heater being converted to propane does not have a carryover lighter tube and drip shield (see Figures 6A and 6B), order the lighter tube and drip shield listed in Table 18.

Ⓞ (H)SC, SCA, SCB, SCE Series 6 and (H)X, (H)XE, PAK Series 8 do not have a lighter tube carryover system on furnaces equipped for natural gas. When converting to propane, remove the factory-installed flash carryover from the "orifice-end" of the burner rack (do not remove the flash carryover from the other end of the burner rack). Order and install the drip shield and carryover lighter tube listed in Table 18.

SECTION C - GAS CONVERSION INSTRUCTIONS for Conversion Kits and/or Components Selected in SECTION B Only

WARNING: All gas conversions are to be done by a qualified service technician in accordance with these instructions and in compliance with all codes and requirements of authorities having jurisdiction. Failure to follow instructions could result in death, serious injury and/or property damage. The qualified agency performing this work assumes responsibility for this conversion.

NOTE: If not using a kit, field-supplied hardware is required but differs by model and size. Read the instructions before beginning to determine what hardware is required.

Instructions apply to either all models or to specific models and sizes, as noted.

1. Check to be certain that the gas conversion kit or the conversion components are appropriate for the furnace being converted.
2. If the heater is installed, **turn off the gas supply** at the shutoff valve upstream of the combination valve. **Disconnect the electrical supply.**
3. **Remove the Burner Rack - Select and follow the instructions that apply to the heater being converted.**

Models XL, XLB, EEXL, EEXLB, CXL, CXLB, CEEXL, and CEEXLB

- a) **All Sizes** - Uncouple the union in the gas supply next to the valve.
- b) **Sizes 30-105** - The burner rack is assembled to the bottom pan. Remove the assembly by removing the two sheetmetal screws at the bottom rear of the heater. See Figure 8A.
- c) **Sizes 125-400** - Remove the rear access panel from the heater.

All Other Models - Remove the side panel from the unit.

All Models - Disconnect the pilot tubing and thermocouple or sensor lead from the pilot. Disconnect the electric leads.

All Other Models - Uncouple the union in the gas supply to permit removal of the burner rack.

Figure 8A - Burner Rack Access on Models XL, XLB, EEXL, EEXLB, CXL, CXLB, CEEXL, CEEXLB Sizes 30-105

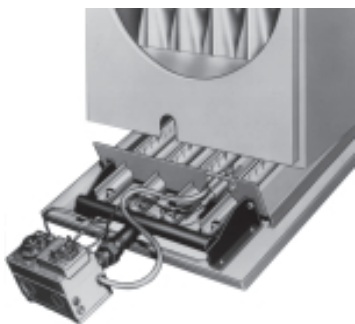


Figure 8B - Burner Rack Access on Models XL, XLB, EEXL, EEXLB, CXL, CXLB, CEEXL, CEEXLB Sizes 125-400



Figure 8C - Example of a Burner Rack removed from Duct Furnace Separated-Combustion Model



(Model SC Series burner racks include a burner rack skirt. Depending on the date of manufacturer and/or the type of gas, the burner rack may have two flash carryovers or one flash carryover with either a regulated or non-regulated lighter tube carryover. Also depending on the date of manufacture and pilot system, the pilot may be either vertical or horizontal.)

4. Change the Burner Orifices

Models XL, XLB, EEXL, EEXLB, CXL, CXLB, CEEXL, and CEEXLB Sizes 30-105 -- Remove the manifold bracket screws and the manifold. Change the burner orifices.

All Other Sizes and Models -- Remove the two screws holding the bottom of the burner rack assembly. Slide the "drawer-type" burner rack out of the heater. If equipped with a carryover lighter tube, break the connection at the manifold fitting. Remove the manifold bracket screws and manifold. Change the burner orifices.

WARNING: Do not attempt to drill orifices. Use factory-supplied orifices only.

5. Change the Pilot Orifice

Remove the screws and lift out the pilot burner. Change the pilot orifice.

6. Install the Valve Regulator Spring Kit or Change the Valve

To install a spring kit -- Follow the valve manufacturer's installation instructions that are included with the spring kit. After a new regulator spring kit is installed, it is necessary to adjust the spring for the correct manifold pressure. This adjustment can only be made after the heater is in operation. Follow the instructions in Step 12, Adjust Manifold Pressure.

WARNING: The manufacturer of the spring kit and the gas valve must be the same. Spring kits of different manufacturers are not interchangeable. A spring kit must be used only in the valves for which the kit is designated.

To Change the Valve :

- a. Mark the wires.
- b. Remove the existing valve.
- c. Following the valve manufacturer's instructions, install the new valve.
- d. If the original valve was connected to an ECO device, be certain to include this on the converted unit.

SECTION C - GAS CONVERSION INSTRUCTIONS (cont'd)

WARNING: Failure to install and/or adjust air shutters according to directions could cause property damage, personal injury, and/or death.

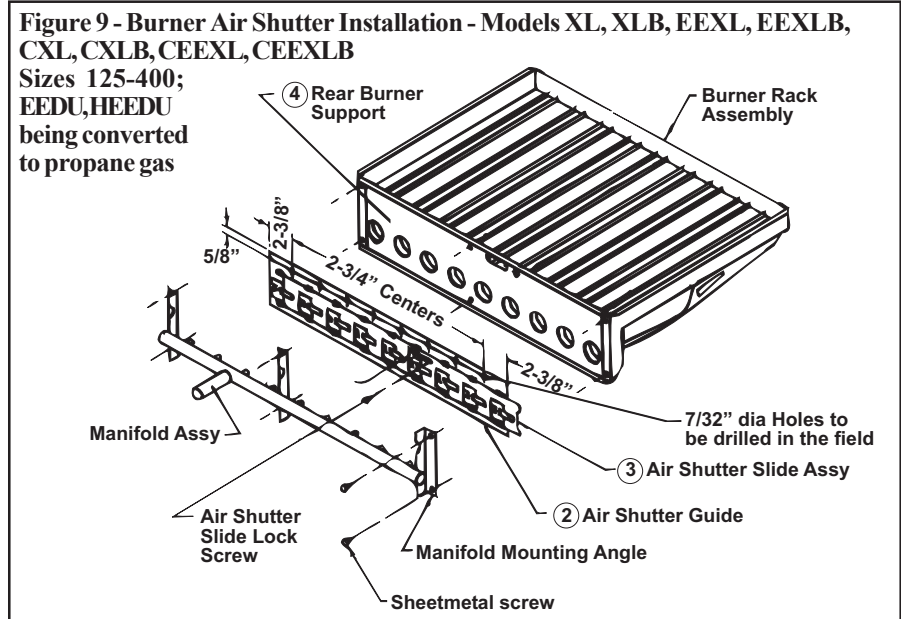
7. Install Burner Air Shutters (if required)

Except for **Sizes 30-105 of Models XL and EEXL Series** unit heaters, all of these heaters require burner air shutters when operated on propane gas. If converting to propane (and the heater does not have air shutters), follow the installation instructions that apply. (NOTE: When converting to natural gas, it is not necessary to remove the shutters; but shutter should be adjusted to full open position.)

Air Shutter Installation Instructions:

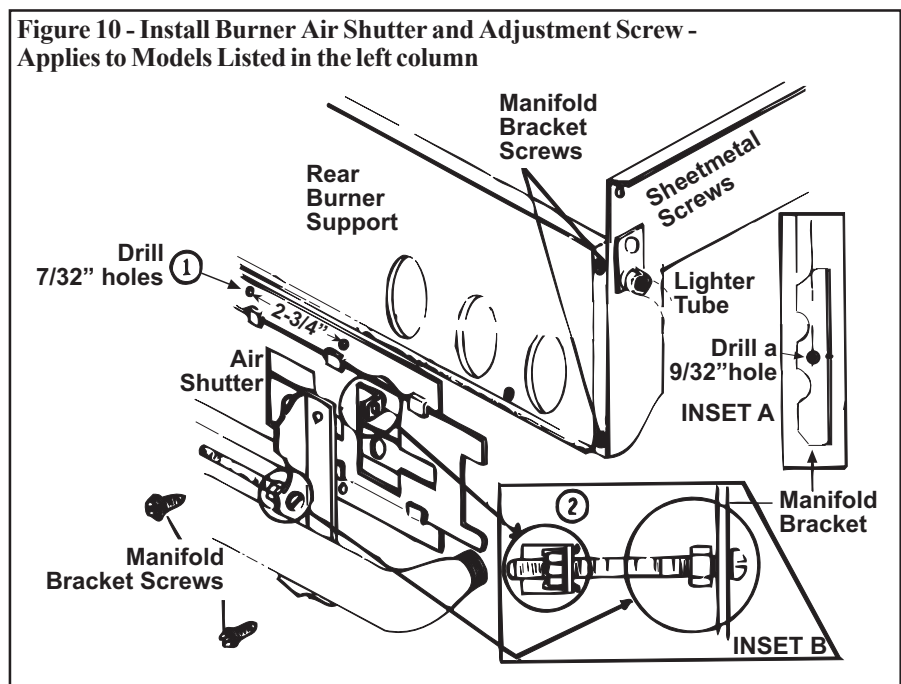
Models XL, XLB, EEXL, EEXLB, CXL, CXLB, CEEXL, CEEXLB 125-400; EEDU, HEEDU -- Follow Steps in Figure 9

- Remove the manifold assembly by removing the 1/4" sheetmetal screws ① in the manifold mounting angles.
- Drill 7/32" holes in the air shutter guide ②, 5/8" from the top of the guide and in 2-3/8" on both sides. Drill additional 7/32" holes on 2-3/4" centers as required by the heater size. Guide must fit flat against rear support to prevent air leakage around the air shutter.
- Position the air shutter assembly ③ on the rear burner support ④ so that the clearance holes in the lower edge of the air shutter guide, fit over the extruded holes located on the rear burner support ④.
- Re-attach the manifold to the rear burner support ④ with the 1/4" sheetmetal screws ①, making sure that the manifold orifices are centered in the air shutter.
- Using the 7/32" holes that you drilled in the air shutter guide as guide holes, drill 1/8" holes through the rear burner support ④ and fasten the air shutter guide ② with the #10x5/8" sheetmetal screws.
- Adjust the air shutter to the wide open position.



Model Series X, XA, XB, XC, XD, XE, XJ, PAK, RX, REB, RXE, RXJ, RPV, RPVE, RPVE, SC, SCA, SCB, SCE, SCJ, SSCBL, RG, RP, RGB, RPB, RGBL, RPBL including these models with prefix "C", "H", or "HC" -- Refer to Figure 10

- Remove the manifold assembly by removing the 1/4" sheetmetal manifold bracket screws.
- Drill 7/32" holes in the air shutter guide ①, 5/8" from the top of the guide and in 2-3/8" on both ends. Drill additional 7/32" holes on 2-3/4" centers as required by the heater size. Guide must fit flat against rear support to prevent air leakage around the air shutter.
- In the corner of the manifold bracket next to the controls, in 3/8" from the edge of the bracket, drill a 9/32" hole. (See Inset A in Figure 10). Insert 1/4" x 2-1/2" adjustment bolt through the 9/32" hole drilled in the manifold bracket (See Inset B in Figure 10). Feed a 1/4" lock nut onto the bolt and turn until the nut clears the bracket by 1/16".
- Insert the threaded end of the adjustment bolt into the adjustment bolt tab ② on the air shutter and turn into thread until the manifold bracket lines up with the mounting holes.



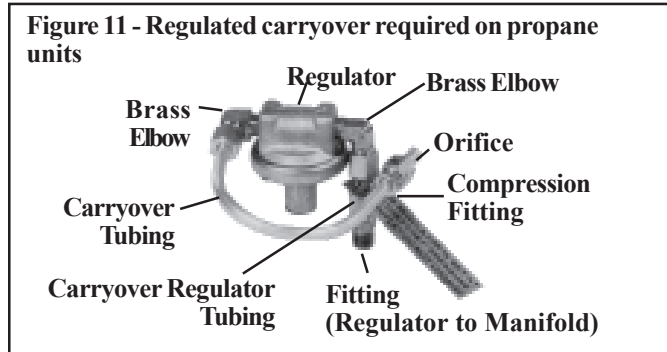
- Re-attach the manifold to the rear burner support with the 1/4" sheetmetal screws, making sure that the manifold orifices are centered in the air shutter.
- Using the 7/32" holes that you drilled in the air shutter as guide holes, drill 1/8" holes through the rear burner support and fasten the air shutter guide with #10x5/8" sheetmetal screws.
- Adjust air shutters to a fully open position.

8. Install Carryover Components on Required Models (Reference Component Selection Step 7, pages 12-14)

If converting from natural to propane, install the kit or the individual components selected in Step 7.

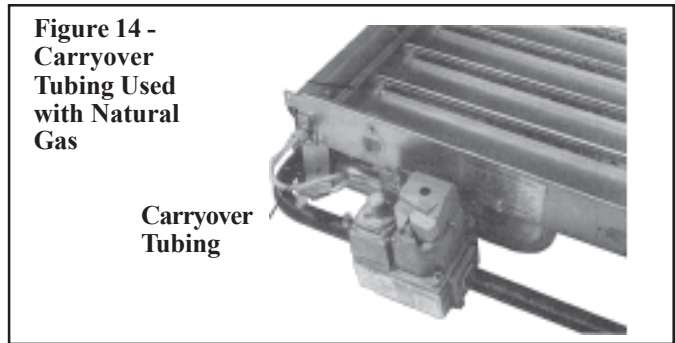
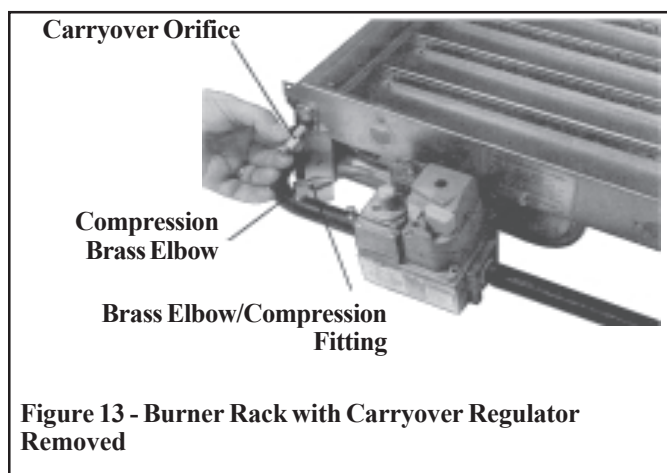
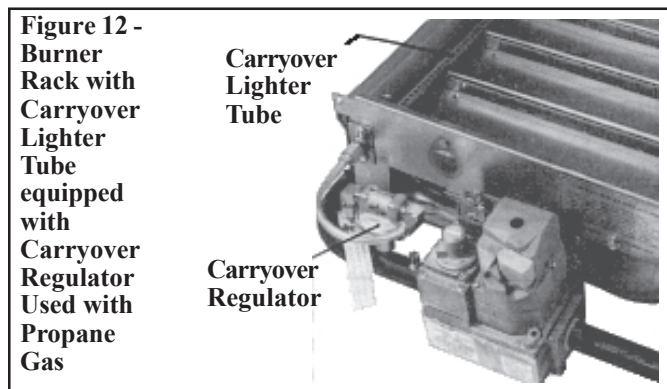
Figure 11 illustrates the regulated carryover required on propane units.

Figure 12 shows a propane gas burner rack with a regulated lighter tube carryover system installed.



If converting from propane to natural and require the removal of a carryover regulator, as determined in Component Selection Step 7, remove the carryover regulator assembly and fittings. If an orifice change is required, remove the carryover orifice. Follow the instructions below to install the carryover components required for natural gas, as determined in Step 7, Table 17.

- Install the brass elbow with compression fitting in the manifold pipe. If an orifice change is required, insert the new orifice. See Figure 13.
- Install the carryover tubing from the manifold pipe to the carryover orifice (replacing the carryover regulator that was required for propane). See Figure 14.



9. Reverse the above procedures to re-assemble the heater. Be sure to re-assemble correctly so that unsafe conditions are not created. Be certain that the burner rack is properly positioned and tight against the heat exchanger.

If your conversion requires changing the ignition controller, do not re-connect the flame sensing wire and the high tension lead to the present controller.

10. Change Ignition Controller (when required)

If Step 1 or Step 6 of the Component Selection Process requires installation of a Model G770NGC-4 ignition controller with lock-out, select and follow the appropriate installation instructions.

Models CEEEXLB, CEEXL, EEXL, EEXLB, XL, XLB - Mark the wires connected to the ignition controller and disconnect. Remove the original controller and bracket. Attach the new bracket to the valve assembly using the screws that held the original bracket. Use the new screws in the kit to attach the new controller to the bracket.

Other Models - Mark the wires and disconnect. Remove the original controller. Attach the new controller using the same screws and mounting holes.

Wiring (All Models) - Connect the wiring to the ignition controller using terminal identifications and wire markings. Terminal numbers on the new controller are identical to those on the original device. Verify connections on the diagram in Figure 15. Keep for future reference.

Depending on the type of ignitor wire supplied on the pilot, it may be necessary to cut off the connector before attaching the wire. If the wire has a Rajah (metal terminal) connector and a rubber boot on the ignitor lead --

- Push back the boot and cut off the terminal (with on more than 1" of wire).
- Remove the rubber boot.
- Push the wire directly on to the spike connector.

If the ignitor does not have a metal terminal, push it directly on to the spike connector.

Be sure that the spike is fully inserted into the wire and the wire is securely connected.

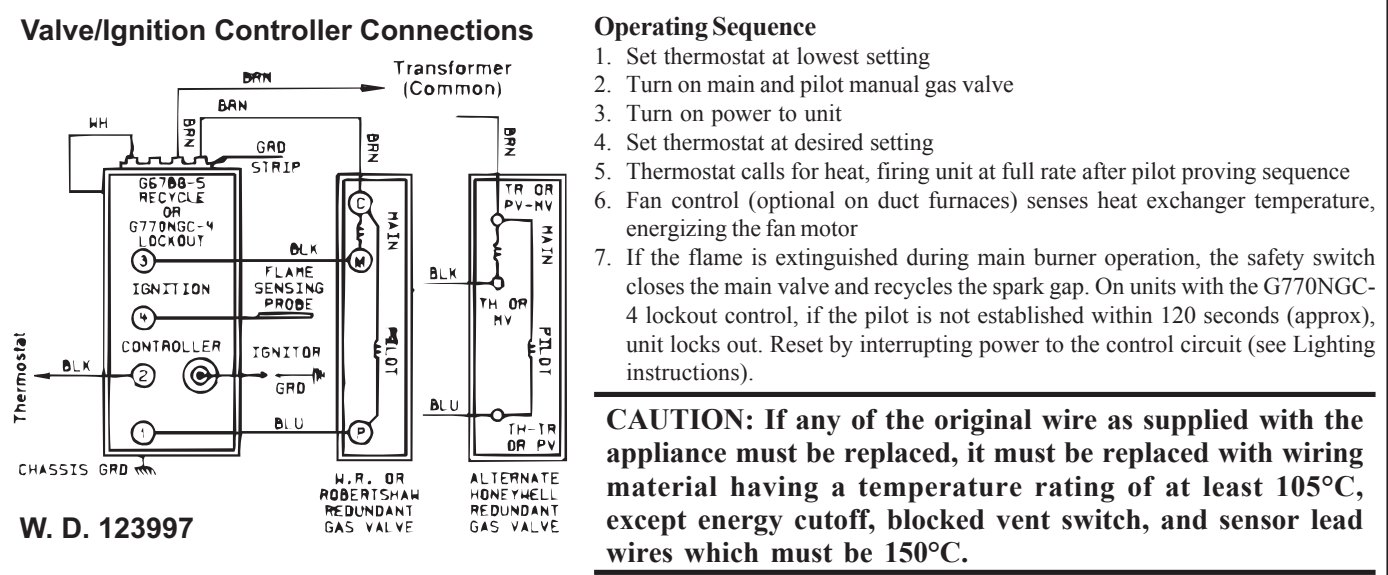
11. Turn on the electric and the gas. Relight, following the instructions on the heater.

WARNING: All components of a gas supply system must be leak tested prior to placing equipment in service. NEVER TEST FOR LEAKS WITH AN OPEN FLAME. Failure to comply could result in personal injury, property damage or death.

Check for gas leaks using a commercial leak detecting fluid or a rich soap and water solution. Leaks are indicated by the pres-

SECTION C - GAS CONVERSION INSTRUCTIONS (cont'd)

Figure 15 - Valve/Ignition Controller Connections and Operating Sequence with Lockout



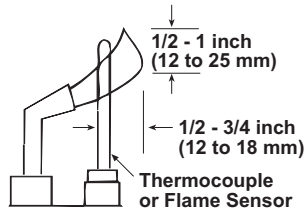
ence of bubbles. Check all connections including the pilot connections. If a leak cannot be stopped by tightening, replace the part.

Observe the pilot flame through the pilot lighting hole. The flame should extend 1/2" past the flame sensing device. (See Figure 16).

To adjust the pilot flame:

- 1) Remove the pilot adjustment cover screw on the valve.
- 2) Turn the inner adjustment screw clockwise to decrease or counterclockwise to increase the pilot flame
- 3) Replace the cover screw after adjustment.

Figure 16 - Pilot Flame Adjustment



WARNING: In the event of a pilot outage or improper ignition, wait at least five minutes before attempting to relight the heater.

12. Adjust Manifold Pressure

WARNING: Manifold gas pressure must never exceed 3.5" w.c. for natural gas or 10" w.c. for propane gas.

For Natural Gas - High fire manifold pressure is regulated by the combination valve to 3.5" w.c. Inlet pressure to the valve must be a minimum of 5" w.c. or as noted on the rating plate and a maximum of 14" w.c. **NOTE: Always** check the rating plate for minimum gas supply pressure. Minimum supply pressure requirements vary based on size of burner and gas control option. Most units require a minimum of 5" w.c. as stated above, but size 350 with mechanical modulation requires a minimum of 7" w.c. and sizes 350 and 400 with electronic modulation require a minimum of 6" w.c. natural gas supply.

For Propane Gas - The regulator in the valve must be adjusted to provide a manifold pressure of 10" w.c. Inlet pressure to the valve must be a minimum of 11" w.c. and a maximum of 14" w.c.

Instructions for Measuring Manifold Gas Pressure:

Before attempting to measure or adjust the manifold pressure, be certain that the inlet (supply) pressure is within the specified range for the gas being used, both when the heater is in operation and on standby. Incorrect inlet pressure could cause excessive manifold gas pressure immediately or at some future time.

With the manual valve (on the combination valve) positioned to prevent flow to the main burner, connect a manometer to the 1/8" pipe outlet pressure tap in the valve. Open the valve and operate the heater to measure the manifold gas pressure **NOTE:** A manometer (fluid filled gauge) is recommended rather than a spring type gauge due to the difficulty of maintaining calibration of a spring-type gauge. If the manometer indicates that the manifold pressure needs adjustment, set the correct pressure by turning the regulator screw on the valve IN (clockwise) to increase pressure or OUT (counterclockwise) to decrease the pressure.

13. Check for safe and proper operation of the heater by operating the heater for at least one cycle. Cautiously observe the main burners for complete flame carryover. Flame must be present on the full length of each burner.

If air shutters are used, adjust them after the heater has been in operation for 15 minutes. Turn the adjustment screws to close the air shutters no more than is necessary to eliminate the problem condition. Observe the flame for yellow tipping. A limited amount of yellow-tipping is permissible for propane gas. Natural gas should not display any yellow-tipping. **NOTE:** A hard blue flame may cause resonance. Adjust air shutters slightly until noise disappears.

WARNING: Failure to install and/or adjust air shutters according to directions could cause property damage, personal injury and/or death.

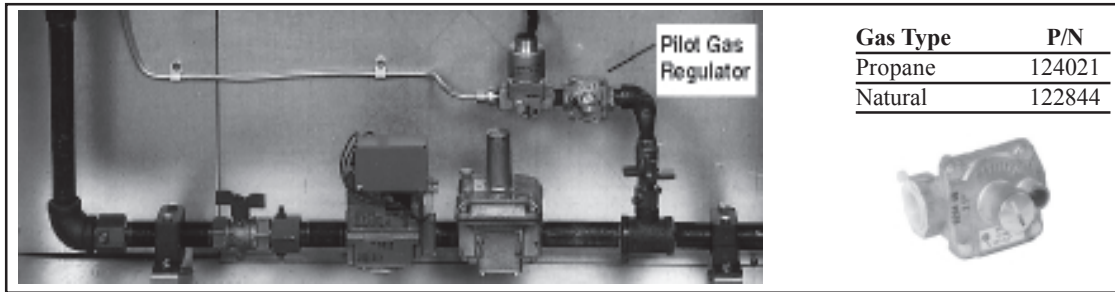
14. Conversion Label or Disk

Complete the information required on the gas conversion tape and affix the tape to the heater near the rating plate. Attach the disk to the heater near the gas valve. Gas conversion is now complete.

Section D - Direct-Fired Furnaces

Models ADF/ADFH only:

- If converting a Model ADF/ADFH, *always* change the **pilot** gas regulator.



- If converting a Model ADF/ADFH that does not have electronic modulation gas controls, select the spring kit or replacement valve from Tables 3-6 on pages 8-10. Follow the valve manufacturer's instructions to install the spring regulator or install the replacement valve.

Reznor® direct-fired unit with electronic modulating gas controls - Reznor® direct-fired models with capacities of **less than or equal to 750 MBH** that are equipped with an electronic gas control system have a pressure regulator (See Figure 17) that regulates the gas pressure to the burner.

Maximum Differential Gas Pressure at the Burner

Natural Gas 5.0" w.c.

Propane Gas 2.0" w.c.

When gas converting, it may be necessary to change the spring in the pressure regulator; check the table below. If a spring replacement is required, order the spring and follow the instructions below.

Regulator Springs for Direct-Fired Models with Electronic Modulation Gas Control System				
Spring P/N	Spring Color	Gas Type	Pressure Range	Maxitrol No.
97351	Orange	Natural	4-8" w.c.	R5310-48
91787	Brown	Propane	1-3.5" w.c.	R5310-13
97196	Cadmium Plated	Natural	3-6" w.c.	R5310-36

NOTE: If the firing rate of the installation is less than the full capacity of the burner, it will be necessary to contact your Representative to determine the proper pressure setting.

Read all instructions following the ones that apply:

1. Turn off the gas at the main manual shutoff and turn the disconnect switch "off".
2. Open the burner section door panel.
3. Change the pilot gas regulator (all Models ADF/ADFH).
4. Install the spring regulator or replacement valve (Model ADF/ADFH with single stage or two-stage gas valve only)
5. Change the spring in the main gas regulator (direct-fired burner with capacity equal to or less than 750 mbh with electronic modulation controls)
 - a) Locate the pressure regulator (Figure 17). Remove the cap and the adjustment screw from the pressure regulator. The regulator spring is now visible.
 - b) Remove the spring and insert the new regulator spring.
 - c) Replace the adjustment screw.
 - d) Measure gas pressure at the burner and adjust pressure to meet application requirements.
 - e) Replace the cap on the regulator.
6. Turn on the disconnect switch and the main gas valve. Check for gas leaks using a commercial leak detecting fluid or a rich soap and water solution. Leaks are indicated by the presence of bubbles. Check all connections including the pilot connections. If a leak cannot be stopped by tightening, replace the part.
7. Replace burner section door panel. The unit is now operational from the system switch on the remote console.

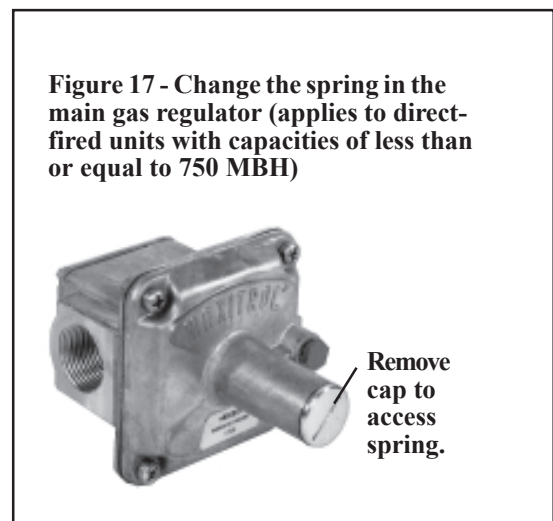


Figure 17 - Change the spring in the main gas regulator (applies to direct-fired units with capacities of less than or equal to 750 MBH)

Section E - Ignition Conversion Kits

Ignition Conversion Kits to Convert from Match Lit Pilot to Spark Pilot - Model Series XL, XLB, CXL, CXLB		
Models	Gas	Kit P/N
(C)XL, (C)XLB 30-105	Natural	98340
(C)XL, (C)XLB 125-250	Natural	98554
(C)XL, (C)XLB 300-400	Natural	98555
(C)XL, (C)XLB 30-105	Propane	98341
(C)XL, (C)XLB 125-400	Propane	98556
Kits include an ignition controller with lockout and Instruction Form RZ-NACP11.		

(NOTE: These kits are NOT gas conversion kits.)

Ignition Conversion Kits to Convert Discontinued Spark Systems to Currently Supplied Spark Systems					
Models	with Discontinued System	Gas Type	Kit P/N	Kit includes	
				Ignition Controller	Form RZ-NA
X, RX Series	G19, 32T, 619, G18	Natural or Propane	96978	with 100% lockout	CP-1
RPV Series	T32		49491		CP-3
SC Series	T32		49807		CP-4
PV Series	T32		54269		CP-8
(H)X, (H)RX, (H)SC, SC(A,B,E)	G60PFH-2		95238		CP-18
(H)RPV, (EE)XL(B), (H)EEDU	G60PFH-2		95241		CP-19
Heaters with Pilot Code 40, 41, or 42	G60AAG-3	Natural	92803	without lockout	CP-15
Heaters with Pilot Codes 44, 45, 46, 48, 50-56	All G65, G60QBC, G60CPG, G60QRH	Natural or Propane	120505	with 100% lockout	CP-15
			91169		CP-14

Ignition Conversion Kits to Convert from Match-Lit to Spark Pilot - Models F and B only			
Model/Size	Gas	Kit P/N	Description
B/F 25-165	Natural	100525	Kits include spark-ignited, intermittent safety pilot without lockout (G67BG-5) and Instruction Form RZ-NA CP20
B/F 200-250		100526	
B 300; F 300-400		100527	
B 400		102348	
B/F 25-165	Natural	100528	Kit includes spark-ignited, intermittent safety pilot with 100% lockout (G770NGC-4) and Instruction Form RZ-NA CP20
B/F 200-250		100529	
B 300; F 300-400		100530	
B 400		102349	
B/F 25-200	Propane	100531	
B 250-300; F 250-400		100532	
B 400		102350	

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