

SEALED COMBUSTION

DOWNFLOW

BUILDINGS

**GAS FURNACE** 

# **FINAL PROCEDURE**

## **INSTALL FURNACE DOOR PANELS**

A. Install the lower door panel by engaging 2 tabs on bottom cabinet pan into slots on plastic end cap. Then, push in top of door panel until clips on the center divider panel are engaged with latches on door.

B. Install the upper louver door panel in a similar manner, by first engaging tabs on the center divider and then pushing the panel in to engage the clips at top of the cabinet.

### **FINISH AND TRIM**

The alcove or closet installation may be finished and trimmed out as needed.

# **GAS VALVE CONVERSION INSTRUCTIONS**

- 1. Follow instructions "TO TURN OFF GAS TO APPLIANCE"
- 2. Remove two bolts securing the gas valve bracket. Pull gas valve valve bracket and burner orifice holder exposing the main burner orifice.
- 3. Install burner orifice specified on the rating plate for the desired gas. Conversion parts are in a bag attached to the gas valve.
- 4. Replace valve, bracket/orifice holder, and bolts. Attach ID tag for the desired gas adjacent to the gas valve. Ensure that all connections are tight.
- 5. Unscrew and reverse the pressure regulating cap so the name of the desired gas is closest to the valve. See illustration.

### HIGH ALTITUDE DERATE CHART- MAIN BURNER ORIFICE SIZE

	NATURAL GAS											
ELEVATION	60,0	00 BTUH FUI	RNACE	70,000	) BTUH FUR	NACE	75,000 BTUH FURNACE			90,000 BTUH FURNACE		
	PART NO	ORIF DIA.	DRILL SIZE	PART NO	ORIF DIA.	DRILL SIZE	PART NO	ORIF DIA.	DRILL SIZE	PART NO	ORIF DIA.	DRILL SIZE
SEA LEVEL	72AG-147	0.1470	26	72AG-159	0.1590	21	72AG-161	0.1610	20	72AG-180	0.1800	15
2,000	72AG-144	0.1440	27	72AG-154	0.1540	23	72AG-161	0.1610	20	72AG-177	0.1770	16
3,000	72AG-140	0.1405	28	72AG-154	0.1540	23	72AG-159	0.1590	21	72AG-173	0.1730	17
4,000	72AG-140	0.1405	28	72AG-152	0.1520	24	72AG-157	0.1570	22	72AG-173	0.1730	17
5,000	72AG-140	0.1405	28	72AG-149	0.1495	25	72AG-154	0.1540	23	72AG-169	0.1690	18
6,000	72AG-136	0.1360	29	72AG-147	0.1470	26	72AG-152	0.1520	24	72AG-166	0.1660	19
7,000	72AG-136	0.1360	29	72AG-144	0.1440	27	72AG-149	0.1490	25	72AG-161	0.1610	20
8,000	72AG-128	0.1285	30	72AG-140	0.1405	28	72AG-147	0.1470	26	72AG-161	0.1610	20
9,000	72AG-128	0.1285	30	72AG-140	0.1405	28	72AG-144	0.1440	27	72AG-157	0.1570	22
10,000	72AG-128	0.1285	30	72AG-136	0.1360	29	72AG-140	0.1405	28	72AG-152	0.1520	24

	LP-PROPANE GAS											
ELEVATION	60,0	00 BTUH FU	RNACE	70,00	O BTUH FUR	NACE	75,00	O BTUH FUR	NACE	90,00	DO BTUH FUR	NACE
	PART NO	ORIF DIA.	DRILL SIZE	PART NO	ORIF DIA.	DRILL SIZE	PART NO	ORIF DIA.	DRILL SIZE	PART NO	ORIF DIA.	DRILL SIZE
SEA LEVEL	72AG-089	0.0890	43	72AG-099	0.0995	39	72AG-101	0.1015	38	72AG-113	0.1130	33
2,000	72AG-086	0.0860	44	72AG-098	0.0980	40	72AG-099	0.0995	39	72AG-110	0.1100	35
3,000	72AG-086	0.0860	44	72AG-096	0.0960	41	72AG-098	0.0980	40	72AG-110	0.1100	35
4,000	72AG-086	0.0860	44	72AG-096	0.0960	41	72AG-096	0.0960	41	72AG-106	0.1065	36
5,000	72AG-082	0.0820	45	72AG-093	0.0930	42	72AG-096	0.0960	41	72AG-106	0.1065	36
6,000	72AG-082	0.0820	45	72AG-093	0.0930	42	72AG-093	0.0930	42	72AG-104	0.1040	37
7,000	72AG-081	0.0810	46	72AG-089	0.0890	43	72AG-093	0.0930	42	72AG-101	0.1015	38
8,000	72AG-078	0.0780	47	72AG-089	0.0890	43	72AG-089	0.0890	43	72AG-101	0.1015	38
9,000	72AG-078	0.0780	47	72AG-086	0.0860	44	72AG-089	0.0890	43	72AG-098	0.0980	40
10,000	72AG-076	0.0760	48	72AG-086	0.0860	44	72AG-086	0.0860	44	72AG-096	0.0960	41

Reference: NFPA No. 54, ANSI Z 223.1 National Fuel Gas Code

Table shows 4% Input Reduction per 1,000 feet elevation.

For Canadian High Altitude (2,000-4,500 feet), reduce gas pressure to burner manifold (manifold Ps.) to 3.0" W.C., and 9.0" W.C. for LP (Propane) Gas

PRESSURE REGULATOR CAP TAN NAT LP GAS VALVE GAS VALVE SETTING FOR SETTING FOR NATURAL GAS lp gas OPERATION OPERATION

# **AIR CONDITIONING SYSTEMS**

If an air conditioning system is installed which does not use the blower for air distribution and operates completely independent of the furnace, the thermostat system shall include interlock, which prevents simultaneous operation of the furnace and air conditioner. An interlock system typically contains a switch, which must be turned to either HEAT or COOL to activate either heating or cooling operation. A cooling thermostat may include a positive OFF switch for this purpose.

When used in connection with a cooling unit the furnace shall be installed parallel with or on the upstream side of the cooling unit to avoid condensation in the heat exchanger. For installations with a parallel flow arrangement, the furnace must be equipped with a damper or other means to prevent cold air from being discharged up around the heat exchanger.

#### High Altitude Installation Installation Clearances Alcove & Closet Installations Air Distribution Systems

Duct Connector/Base	
Install Furnace	
Roof Jack Selection	
Cut Openings & Install Roof Jack	
Installing in Snow Regions	
Roof Jack On Hi-Pitch Roof	
Transit-mode Roof Jack	
Connect Power Supply Wires	
Wall Thermostat	
Connect Thermostat Wires	
Gas Piping	
Wiring Diagrams	
Repair Parts List	
Final Procedure	
Furnace and Air Conditioner Installations	
High Altitude Deration Chart	

#### **GENERAL INFORMATION**

These downflow sealed combustion furnaces install in Manufactured Homes, Recreational Vehicles or modular construction. The furnaces conform to Part 3280 (a) (2) of HUD Manufactured Home Construction and Safety Standards. They must be installed only with listed RJ-Roof Jack, sealed combustion venting system.

NOTE: These instructions are intended to assist qualified individuals experienced in the installation of heating equipment. Some state and local codes require installation personnel to be licensed. Read all instructions before starting the installation.

#### SAVE THIS MANUAL

# **INSTALLATION INSTRUCTIONS**

# G17D, G18D Sizes 060-090



FOR INSTALLATION IN: MANUFACTURED (MOBILE) HOMES, RECREATIONAL VEHICLES, PARK MODELS, MODULAR HOMES AND **CAUTION: READ ALL SAFETY GUIDES BEFORE INSTALLING THIS FURNACE** 

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WARNING-RISK OF FIRE OF ELECTRICAL SHOCK Only qualified service personnel shall be used to install and provide maintenance of this furnace.

**NOTICE** - A furnace set-up and any adjustment needed is the responsibility of the installer/retailer/contractor and is not covered by the furnace manufacturers warranty.

## **CHECKLIST: FURNACE START-UP**

- 1. Has furnace roof jack crown been correctly installed?
- 2. Has the furnace gas valve and burner orifice been correctly converted to L.P. Gas where applicable?
- 3. Is the gas line outlet pressure set for the fuel used? NAT Gas is 3.5" W.C. and L.P. Gas is 10.0"W.C.
- 4. If the home uses a crossover air connector duct, is it installed per the homebuilders installation instruction?
- 5. Has the furnace been operated through a complete heating cycle?

#### **SPECIFICATIONS**

Model No.         C18D002-H7(710         C18D002-H7(710)         C18D002-H7(710) <thc12d02-h7(710)< th=""> <thc12d02-h7(710)< th=""></thc12d02-h7(710)<></thc12d02-h7(710)<>	80 AFUE- AUTOMATIC	HOT SURFACE IGN						1
Open Bill         Open Bill <thopen bill<="" th=""> <thopen bill<="" th=""> <tho< td=""><td>Model No.</td><td>G18D060A-</td><td>H2/10 G1</td><td>8D075A-H2/10</td><td>G18D090A-H2/10</td><td>G18D060B-A3/12</td><td>G18D075B-A3/12</td><td>G18D090B-A3/12</td></tho<></thopen></thopen>	Model No.	G18D060A-	H2/10 G1	8D075A-H2/10	G18D090A-H2/10	G18D060B-A3/12	G18D075B-A3/12	G18D090B-A3/12
Other Science         Other Science <thother science<="" th="">         Other Sci</thother>	Input, BTUH	60,000		75,000	90,000	60,000	75,000	90,000
MAY AC Calobie         DOI:         NO		48,000	,	81.0	72,000	48,000	81.0	72,000
Bill Proc.         Ave: Elect         Ave: El	With A-Coil Cabinet	NO		NO	NO	YES	YES	YES
At Beneficial Rest, Drave F.         48/270         42.75         39.80           At Beneficial Rest, Drave F.         48/270         42.75         39.80           Designed Max Cube At Plane F.         1.05         Heal/Cool -df           Designed Max Cube At Plane F.         1.05         Heal/Cool -df           Status Cube At Plane F.         Mark Like Kos M. F. Brad Jack         Status Cube At Plane F.           Status Cube At Plane F.         1.07/2018 -df 2018         Heal/Cool -df           Status Cube At Plane F.         2.015/2028 -df 2018         Heal/Cool -df           Head To Plane F.         0.07000 -df 2010         G720004 -df 2012         G720004 -df 2012           Status Cube At Plane F.         0.0001         G720004 -df 2010         G720004 -df 2010         G720004 -df 2010           Status Cube At Plane F.         0.0001         G720004 -df 2010         G72000 -df 2010         G72000 -df 2010         G72004 -df 2010	Ignition Type	Auto-Ele	ect	Auto-Elect	Auto-Elect	Auto-Elect	Auto-Elect	Auto-Elect
Biose-Form         Herr         I         Head/Coll -fit           Biose-Form         0.3         0.3         0.3           Biose-Born         0.3         0.3         0.3           Biose-Born         0.3         0.3         0.3           Standard MC Cold Hard         For elevations alone 2000 for, network inplications alone size local         0.3           Standard MC Cold Hard         10/2000         10/2000         10/2000           Standard Contral         12/2000         10/2000         10/2000           Standard Max Contral Alia         10/2000         10/2000         10/2000           Standard Max Contral Alia         10/2000         10/2000         10/2000           Standard Max Contral Alia         10/2000         10/2000         10/2000         10/2000           Standard Max Contral Alia         10/2000         10/2000         10/2000         10/2000         10/2000           Standard Max Contral Alia         10/2000         10/2000         10/2000         10/2000         <	Air Temperature Rise, Ranc	e-F 40-70	)	45-75	50-80	40-70	45-75	50-80
Dataged Mod         145           State Sterry & P(loc), in W.C.         0.30           State Sterry & P(loc), M.C.         0.30           State Sterry & P(loc), C.G., C.	Blower-Heat or Heat/Cool			Heat			Heat/Cool -4T	
Adv. External 97 (Dec), In. W.C.         0.30           Station Targets         For elevation above 2000 file mediate and decision above sea level           Station Targets         For elevation above 2000 file mediate and decision above sea level           Station Targets         Nature 153 or 167 field and           Station Targets         120 Max 165 or och 1.000 file allovation above sea level           James Risk         120 Max 2000 file mediate           Station Targets         120 Max 2000 file mediate           James Risk         61 (7000 Max/12)           Station Station Station Station above sea level         120 Max 2010 file mediate           James Risk         61 (7000 Max/12)         61 (7000 Max/12)           Station S	Designed Max Outlet Air T	emp-F			1	65		
Caleby Expeditive         Text densities and the second 1000 find denotes and level           Second Second         1/2 mm           Second Second Second         1/2 mm           Second Second Second Second Second Se	Max. External SP (Duct), In	. W.C.			0	.30		
Tight Athline         Tor section door 2.000 Net. Allow 2001 Not.         Text 2001 Net.           Mark Ling	Factory Equipped Fuel				Natur	ral Gas	2 I I I	
Date Construit         Product 1/2	High Alfitude		FC	or elevations above	2,000 feet, reduce input	4% for each 1,000 ff. elev	vation above sea level	
Barles Service         120VAC, 60Hz, 1 Hr.           User Check Broker         13 Anno           Harmmond Creat         24/AC, 60Hz, 4/0A           User Check Broker         24/AC, 60Hz, 4/0A           Strate - StanDing FLDT IGNITION         NOTE: Blower Driver: H2/10, A3/12, A4/16 liaide with all G17D-G18D funcee model           Model No.         G17D006Hz/10         G17D00Hz/10         G17D00Hz/10 <td>Gas Connection</td> <td></td> <td></td> <td></td> <td>1/2"</td> <td>NFPT</td> <td></td> <td></td>	Gas Connection				1/2"	NFPT		
Instruction         Instruction         Instruction           25 AFUE-STANDING PILOT IONTION         NOTE: Blower Drive: 1/2/10, A3/12, A4/16 lated with all G17D-G18D furnace.medd           75 AFUE-STANDING PILOT IONTION         NOTE: Blower Drive: 1/2/10, A3/12, G17D0706+A7/1         G07D0706+A7/1         <	Electric Service				120VAC,	60Hz, 1 Ph		
Internation Created         24/MC, 6/01+, 4/04           75 ATUE- STANDING PILOT IONITION         NOTE: Blower Drives: H2/10, A3/12, A4/16 lased with all G17D: G18D furnace model           Yead Pilot         G17D0068-H2/10         G17D0078-H2/10         G17D0078-H2/10         G17D0078-H2/10         G17D0078-H2/10         G17D0078-H2/10         G17D0078-H3/12         G17D0078	Fuse or Circuit Breaker				15	Amp		
Bites         216 x20x1*           75 AFUE: STANDING PILOT IONTION         NOTE: Blower Drive: H2/10, A3/12, A4/16 lated with all G17D-G18D funces and the option of the option opti	Thermostat Circuit				24VAC, 6	0Hz, 40VA		
75 APUE- STANDING PILOT IONITION       NOTE: Blower Drives: H2/10, A3/12, A4/16 lased with all G17D-G18D furnace model         Voidel No.       G17D0068-H2/10       G17D00768-H2/10       G18D001       G17D007	Filters				2-16">	x20"x1"		
P3 APUE - STANDING PILOT ICONTION         NOTE: Blower Drew: 1/2/10, A/3/12, A/1/6 Bias with all c17b~5180 functes models with all c17b~5180 functes with all content with all co								
Vodel No.         G17D0068-H2/10         G17D0078-H2/10         G17D0078-H2/	75 AFUE- STANDING I	VILOT IGNITION			NOTE: Blower Dr	ives- H2/10, A3/12 , A4	/16 listed with all G17D	G18D furnace models
Deput BUH         60,000         70,	Model No	G17D060B-F	42/10 G1	7D070B-H2/10	G17D090B-H2/10	G17D060B-A3/12	G17D070B-A3/12	G17D090B-A3/12
Darput BIH         44,000         55,000         71,000         44,000         55,000         71,000           With A Call Cabbier         YES	nput, BTUH	60.000	)	70,000	90,000	60,000	70,000	90,000
AFLE, %         76.0         75.0         76.0	Output, BTUH	48,000	)	55,000	71,000	48,000	55,000	71,000
Mith A. Coll Cabinet         YES	AFUE, %	76.0		75.0	76.0	76.0	75.0	76.0
print         Type         Piol         <	With A-Coil Cabinet	YES		YES	YES	YES	YES	YES
Ar Lemperature Kiss, Ranget         45/75         50:80         45/75         45/75         50:80           Designed Max: Outlef Air Emperf         163         163         163         163           Asc. Externed SP (Nex) II, NVC         0.30         Nexture Case         Nexture Case         164           Gardery Equipped Fuel         102         Nexture Case         Nexture Case         164         163           Gardery Equipped Fuel         102         Nexture Case         Nexture Case         162         163           Gardery Equipped Fuel         102         Nexture Case         162         162         162         162         162	gnition Type	Pilot		Pilot	Pilot	Pilot	Pilot	Pilot
Biosertent or real/Load         Heat/Load         Heat/Load         Heat/Load         Heat/Load           Segred Mics Outer Air Temp-F         0.30         0.30         0.30         0.30           Takor, Equipad Mics Outer Air Temp-F         0.30         0.30         0.30         0.30           Takor, Equipad Mics Outer Air Temp-F         0.30         0.30         0.30         0.30           Takor, Equipad Mics Outer Air Temp-F         0.30         0.30         0.30         0.30           Takor, Equipad Mics Outer Air Temp-F         0.30         0.30         0.30         0.30           Takor Equipad Mics Outer Air Temp-F         0.30         0.30         0.30         0.30         0.30           Sector Crout Breaker         1.20AC, 60Hz, 1Ph         0.30	Air Temperature Rise, Rang	<u>e-t 45-75</u>	11 . /07 5	45-75	50-80	45-75	45-75	50-80
Heighen mod volum Full lengt?	Biower-Heat or Heat/Cool		Heat/31 Blow	er Keady, No AC C	Lontrols	45	Heat/Cool -4T	
Marc Lethind Tuck in Merc Tigh Alfilde	Designed Max Outlet Air In	mp-r			0	30		
Tor elevations dove 2,000 feet, reduct input 4% for acid input 4% for a	Factory Equipped Eyel	. vv.c.			U. Natur	al Gas		
Amount Pile Pipe         Must Use R5 or RF Roof Jock           Sig Convection         1/2/VAC, 60Hz, 1 Ph           Becht Service         120/AC, 60Hz, 1 Ph           Sig Convection         24/VAC, 60Hz, 40VA           Tiles         24/VAC, 60Hz, 40VA           Series         25/7           Series         25/7 <td< td=""><td>High Altitude</td><td></td><td>Fc</td><td>r elevations above</td><td>2.000 feet, reduce input</td><td>4% for each 1.000 ft. elev</td><td>ration above sea level</td><td></td></td<>	High Altitude		Fc	r elevations above	2.000 feet, reduce input	4% for each 1.000 ft. elev	ration above sea level	
Card Connection       1/2" NPT         Each: Service       120XAC, 60Hz, 1 Ph.         Thermstel Circuit       24VAC, 60Hz, 40VA         Series       216/5 x20VXII*         PRODUCT CODE       Image: Circuit Brobler         Series       1, 2, 3.4- MOTOR SPEEDS         >=00 FIRC, MANUETR-MOD       A=A/C BLOWER & RELAY         H=HEAT or 3T BLW READY, NO RELAY       A=A/C BLOWER & RELAY         H=HEAT or 3T BLW READY, NO RELAY       A=A/C BLOWER & RELAY         H=HEAT or 3T BLW READY, NO RELAY       A=A/C BLOWER & RELAY         ACCESSORIES       A=A/C BLOWER & RELAY         PORTRIZESAI       Body, Roof Jock, Gas-SOPE 3/12         PORTRIZESAI       Body, Roof Jock, Gas-SOPE 3/12 <t< td=""><td>Furnace Flue Pipe</td><td></td><td></td><td></td><td>Must Use RJS o</td><td>or RJF Roof Jack</td><td></td><td></td></t<>	Furnace Flue Pipe				Must Use RJS o	or RJF Roof Jack		
Behric Service       120WAC, 60Hz, 1Ph.         wer C'rouil Bracker       120WAC, 60Hz, 40WA         Hermostel Circuit       2:16*:20*:x1*         PRODUCT CODE       2:16*:20*:x1*         GAS	Gas Connection				1/2"	NFPT		
Topse of Circuit Breaker       15 Amp         Hermodoti Circuit       24/04/2, 60/14, 40/04         Tillers       21/6*20*x1**         PRODUCT CODE       0         G       1       8       D       075 B       A       3/12         Series       0.3" WC Ex 87 [PUCT]       10-1010, 12-1180, 16-1620       1, 2, 3.4. MOTOR SPEEDS       1, 2, 3.4. MOTOR SPEEDS         >=SRRES	Electric Service				120VAC,	60Hz, 1 Ph		
Itemmetal Circuit       204Xc, 60Hz, 40Xa         216*207x1*       216*207x1*         PRODUCT CODE         G       1       8       D       075 B       - A       3/12         Image: Colspan="2">Colspan="2"         Colspan="2"         Colspan="2" <t< td=""><td>Fuse or Circuit Breaker</td><td></td><td></td><td></td><td>15.</td><td>Amp</td><td></td><td></td></t<>	Fuse or Circuit Breaker				15.	Amp		
Siles       2:16*x20*x1*         PRODUCT CODE S=GAS       A       3/12         SERIES       ASH       ASH         SERIES       ASH       ASH         SERIES       ASH       ASH         SACK CB LOWER & SELAV H=HEAT or 3T BLW READY, NO RELAY H=HEAT or 3T BLW READY, NO RELAY PORENCENCHANG, Body, Roof Jack, Gas SLOPE 3/12 Height B' 175 In 101 in. 140 in. HOW RELAY B dody, Roof Jack, Gas SLOPE 3/12 Height B' 132 in. 171 in. POR REASANAN A DOC Gas AGO SLOPE 3/12 Height B' 132 in. 171 in. POR REASANAN A DOC Gas AGO SLOPE 3/12 HEAT HOW TO BLAY A DOC BACK Gas AGO	Thermostat Circuit				24VAC, 6	0Hz, 40VA		
Product code         S - 1 - 8 - 0 - 075 - B - A - 3/12         S=GAS	Filters				2-16">	(20"x1"		
G       J         GAS       J         SERIES       J         STS, 8=80 AFUE       DASH         JASH       J         A=AC BLOWER & RELAY         H=HEAT or 3T BLW READY, NO RELAY         H=HEAT OR J BACK, Roof Jack, Gar-SLOPE 3/12         Height 'B'- 97 in 123 in.         YO RIS253-1-AL       Body, Roof Jack, Gar-SLOPE 3/12         Height 'B'- 97 in 123 in.         YO RIS253-1-AL       Body, Roof Jack, Gar-SLOPE 3/12         Height 'B'- 97 in 140 in.         YO RI		:						
Sec S → S → S → S → S → S → S → S → S → S		, 9 D 07	5 R .	A 3/10				
-SCR3								
■SERIES       In the base of the base	0-040			@ 0.3				
2=75, 8=80 AFUE       1,2,3,4·MOTOR SPEEDS         >==ONFLO, MANUFTR-MOD       1,2,3,4·MOTOR SPEEDS         >==ONFLO, MANUFTR-MOD       A=A/C BLOWER & RELAY         H=HEAT or 3T BLW READY, NO RELAY       H=HEAT or 3T BLW READY, NO RELAY         A=56*, B=72* TALL FURN CABINET       A=56*, B=72* TALL FURN CABINET         ACCESSORIES       PART NO.       DESCRIPTION         PORJES251-AL       Body, Roof Jack, Gos-FLAT       Height 'A'. 73 in. 85 in.         90-RJES251-AL       Body, Roof Jack, Gos-SLOPE 3/12       Height 'B'. 97 in. 123 in.         90-RJES251-AL       Body, Roof Jack, Gos-SLOPE 3/12       Height 'B'. 97 in. 123 in.         90-RJES251-AL       Body, Roof Jack, Gos-SLOPE 3/12       Height 'B'. 97 in. 123 in.         90-RJES251-AL       Body, Roof Jack, Gos-SLOPE 3/12       Height 'B'. 97 in. 123 in.         90-RJES251-AL       Body, Roof Jack, Gos-SLOPE 3/12       Height 'B'. 135 in. 171 in.         90-RJEXEN-HAL       Crown, Roof Jack, Gos       Use WG Gas Roof Jack Rody         90-RJEXEN-HAL       Crown, Roof Jack, Gos SLOPE 3/12       Height 'B'. 73 in. 68 in.         90-NERKU-NAL       Crown, Roof Jack, Gos SLOPE 3/12       Height 'B'. 73 in. 123 in.         90-DUTXTI-6AL       Roof Jack Uodor Extension-Gos 10°       Extend inside pipes-10 in.         90-DUTXTI-6AL       Roof Jack Lodopter       Add	1=SERIES		D/ Kirl	- 10-10	10 12-1180 16-1620			
<sup>1</sup> 2.7, 8 +80 AFUE →=DNFLO, MANUFTR-MOD (60,070,075,090 BTUH INPUT A=56*, B=72* TALL FURN CABINET A=A/C BLOWER & RELAY H=HEAT or 3T BLW READY, NO RELAY THE CONSTRUCT A Body, Roof Jack, Gos-FLAT Height 'B'- 73 in - 85 in. 90-RJF1272-AL Body, Roof Jack, Gos-SLOPE 3/12 Height 'B'- 97 in - 123 in. 90-RJS2551-AL Body, Roof Jack, Gos-SLOPE 3/12 Height 'B'- 101 in101 in. 90-RJS3868-AL Body, Roof Jack, Gos-SLOPE 3/12 Height 'B'- 110 in110 in. 90-RJS3868-AL Body, Roof Jack, Gos-SLOPE 3/12 Height 'B'- 110 in110 in. 90-RJS3868-AL Body, Roof Jack, Gos-SLOPE 3/12 Height 'B'- 110 in110 in. 90-RJS268FAL Body, Roof Jack, Gos-SLOPE 3/12 Height 'B'- 110 in110 in. 90-RJS3868-AL Body, Roof Jack, Gos-SLOPE 3/12 Height 'B'- 110 in110 in. 90-RJS368 - 5-6/12 Slope, Roof Jack Adapter Add to RJS 3/12 Roof Jack Body 90-DULO-O2 86AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct - 1 in. 4 in. 90-RDUC-O2 86AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct - 1 in. 4 in. 90-RDUC-O2 86AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct - 1 in. 4 in. 90-RUKELW Blower Reley/Wiring Kit Convert Fum for A/C 90-DULO-O2 86AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct - 1 in. 4 in. 90-RUKELW Blower Reley/Wiring Kit Convert Fum for A/C 90-RUKLAW Blower Reley/Wiring Kit Convert Fum for A/C					10, 12 1100, 10 1020	25"	4"	
A=A/C BLOWER & RELAY         A=A/C BLOWER & RELAY         H=HEAT or 3T BLW READY, NO RELAY         K0,070,075,090 BTUH INPUT         A=56", B=72" TALL FURN CABINET         ACCESSORIES         PART NO.       DESCRIPTION         90-RJS7251-AL       Body, Roof Jack, Gas-FLAT         Height 'b'- '73 in 85 in.         90-RJS72551-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'b'- '73 in 107 in.         90-RJS72551-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'b'- '73 in 107 in.         90-RJS7254-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'b'- '73 in 107 in.         90-RJS72551-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'b'- '13 in 101 in 140 in.         90-RJS7254-AL       Cown, Roof Jack, Gas-SLOPE 3/12         Height 'b'- '13 in.' 101 in 12 in.         90-RJRCWN-AL       Crown, Roof Jack, Gas-SLOPE 3/12         YO-RJRKS556       5-6/12 Slope, Roof Sadle Adopter         Add to RJS 3/12 Roof Jack       Floor to Duct-' in4 in.         90-DUC-02       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct-' 6 in4 in.'STD         90-DUC-02       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct-' 6 in4 in.'STD         90-DUC-02       86AA0013 Duct Conn + 87F	7=7.5 8=80 AFUE				4- MOTOR SPEEDS	23-1/8" 19-34	4	
A=A/C BLOWER & RELAY H=HEAT or 3T BLW READY, NO RELAY H=HEAT or 3T BLW READY, NO RELAY A=56", B=72" TALL FURN CABINET ACCESSORIES NART NO. DeSCRIPTION 90-RUF1729-AL Body, Roof Jack, Gas-FLAT Height 'A'- 73 in 85 in. 90-RUF1729-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 81 in 107 in. 90-RUF32551-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 81 in 101 in. 90-RU536369-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RU536369-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RU536399-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RU536399-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RU536399-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RU53636 90-DUT-AL Roof Jack Outdoor Extension-Gas 16" Extend pipes/crown-16 in. 90-DUL-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 1 in4 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 1 in4 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 1 in4 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 1 in4 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 8 in12 in. 90-DCU-OI 866AA0013 Duct Conn + 87FB0005 Flr Bas	-/ 0, 0=00 / 1 02			1,2,0,		11-1/4		
H=HEAT or 3T BLW READY, NO RELAY         H=HEAT or 3T BLW READY, NO RELAY         H=HEAT or 3T BLW READY, NO RELAY         A=56", B=72" TALL FURN CABINET         ACCESSORIES         PART NO.         PORJETZ25-1AL         Body, Roof Jack, Gas-SLOPE 3/12         Height 'A': 81 in 107 in.         90-RJS1729-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B': 97 in 123 in.         90-RJS5356-1AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B': 97 in 123 in.         90-RJS5350-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B': 97 in 123 in.         90-RJS5350-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B': 101 in 140 in.         90-RJS5363-05-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B': 101 in 113 in         90-RJICKWN-AL       Crown, Roof Jack, Gas-SLOPE 3/12         PO-RJIRC       Kit, Transit- Roof Jack. Gas SLOPE 3/12         PO-BUNKTIO-AL       Roof Jack Addo a Labels         PO-DUTCO16-AA0013 Duct Conn + 87FB0005 FIr Base       Floor to Duct - 6 in8 in.*STD         PO-DUCO-02       86AA0014 Duct Conn + 87FB0005 FIr Base       Floor to Duct - 6 in8 in.*STD         PO-DUCO-03       86AA0014 Duct Conn + 87FB0005 FIr Base       Floor to Duct - 6 in8 in.*STD	D=DNFLO_MANUFTR-MOD	,		A=A/C BLOW	FR & RFLAY	9-7/	8.	1
b00,070,075,090 BTUH INPUT       A=56*, B=72" TALL FURN CABINET         ACCESSORIES         PART NO.       DESCRIPTION         90-RJF1729-AL       Body, Roof Jack, Gas-FLAT         Height 'A'- 73 in 85 in.         90-RJF5729-AL       Body, Roof Jack, Gas-FLAT         Height 'B'- 81 in 107 in.         90-RJF5729-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 81 in 107 in.         90-RJF5351-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 110 in 140 in.         90-RJF5351-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 105 in 171 in.         90-RJF5351-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 135 in 171 in.         90-RJF5351-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 135 in 171 in.         90-RJF5351-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 135 in 171 in.         90-RJF67-CK       Kt, Transit-Roof Jack-Cap & Labels         for transport-remove on site         90-DUC-O1       86AA0013 Duct Conn + 87FB0005 FIr Base       Floor to Duct- 1 in4 in.         90-DCUO-O2       86AA0014 Duct Conn + 87FB0005 FIr Base       Floor to Duct- 8 in.12 in.         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76' top open				H=HFAT or 3T	BIW READY NO RELAY			25"
A=56*, B=72* TALL FURN CABINET         ACCESSORIES         PART NO.       DESCRIPTION         Yor.PI7272-AL       Body, Roof Jack, Gas-FLAT         Height 'A'- 73 in 85 in.         YORJE7257-AL       Body, Roof Jack, Gas-FLAT         Height 'B'- 81 in 100 in.         YORJS2531-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 97 in 123 in.         YORJS2531-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 97 in 123 in.         YORJS2538-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 135 in 171 in.         YORJS2638-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 135 in 171 in.         YORJS2638-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 135 in 171 in.         YORJS2638-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 135 in 171 in.         YORJS2638-AL       Body, Roof Jack, Gas-SLOPE 3/12         Height 'B'- 135 in 171 in.         YORJS2638-AL       Body, Roof Jack, Gas-SLOPE 3/12         YORJS2638-AL       Body, Roof Jack, Gas-SLOPE 3/12         YORJS2645       S-6/12 Slope, Roof Saddle Adapter         YOD-CU-OL       86AA0013 Duct Conn + 87FB0005 FIr Base       Floor to Duct- 1 in4 in.         YOD-CUO-								23-7/8" 19-3/4"
ACCESSORIES PART NO. DESCRIPTION NOTES 90-RIF1729-AL Body, Roof Jack, Gas-FLAT Height 'A'- 73 in 85 in. 90-RIF2551-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 81 in 107 in. 90-RI52551-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 81 in 101 in. 90-RI52551-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 97 in 123 in. 90-RI53868-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 110 in 140 in. 90-RIS2551-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 110 in 140 in. 90-RIS5868-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 101 in. 90-RIS6399-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RIS764-Comp, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RIS765-S 5-6/12 Slope, Roof Saddle Adapter Add to RIS 3/12 Roof Jack 90-RITRC Kit, Transit- Roof Jack Outdoor Extension-Gas 10" Extend pipes/crown-16 in. 90-RIS765-S 5-6/12 Slope, Roof Saddle Adapter Add to RIS 3/12 Roof Jack 90-DCUO-O1 86AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O2 86AA0014 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O2 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O2 86AA0014 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA0015 Duct Conn + 87FB0005 Flr Base Floor to Duct - 6 in8 in.*STD 90-DCUO-O3 86AA00	060 070 075 090 BTUH IN	рит	Δ=56" B	-72" TALL FURN CA				11-1/4"
ACCESSORIES PART NO. DESCRIPTION NOTES 90-RJF1729-AL Body, Roof Jack, Gas-FLAT Height 'A'- 73 in 85 in. 90-RJF1729-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 81 in 107 in. 90-RJS1729-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 97 in 123 in. 90-RJS268-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 97 in 123 in. 90-RJS268-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 110 in 140 in. 90-RJS268-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 110 in 140 in. 90-RJS268-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 110 in 140 in. 90-RJSC68-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RJSC68-AL Body, Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RJSC68-AL Roof Jack, Gas-SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RJCRWN-AL Crown, Roof Jack, Gas SLOPE 3/12 Height 'B'- 135 in 171 in. 90-RJTRC Kit, Transit- Roof Jack-Cag & Labels 90-OUTXT16-AL Roof Jack Undoor Extension-Gas 10" Extend pipes/crown-16 in. 90-DSLOCO-OI 86AA0013 Duct Conn + 87FB0005 Flr Base Floor to Duct- 1 in4 in. 90-CABEXTA White, Top, Cabinet Extender Plate Fill alcove 76' top opening 90-BLWRELAY Blower Relay/Wiring Kit Convert Furn for A/C 37-1008-3/12A1 A/C Blower, 3 Speed-1/3 HP 2-4 Ton A/C			7(-00 7,5					9-7/8
PART NO.DESCRIPTIONNOTES90-RJF1729-ALBody, Roof Jack, Gas-FLATHeight 'A'- 73 in 85 in.90-RJF2551-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 81 in 107 in.90-RJS2551-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 97 in 123 in.90-RJS268-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 101 in.90-RJS268-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 110 in.90-RJS268-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 110 in.90-RJSC868-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 135 in 171 in.90-RJCRWN-ALCrown, Roof Jack, GasUse w/ Gas Roof Jack Body90-RJTRCKit, Transit- Roof Jack-Cap & Labelsfor transport-remove on site90-OUTXT16-ALRoof Jack Outdoor Extension-Gas 10"Extend inside pipes/crown-16 in.90-RJS5665-6/12 Slope, Roof Saddle AdapterAdd to RJS 3/12 Roof Jack90-DCUO-O186AA0013 Duct Conn + 87FB0005 Fir BaseFloor to Duct-1 in4 in.90-CABEXTAWhite, Top, Cabinet Extender PlateFill alcove 76" top opening90-CABEXTABlower Relay/Wiring KitConvert Furn for A/C97-D2UO-O386AA0015 Duct Conn + 87FB0005 Fir BaseFloor to Duct-1 in4 in.90-CABEXTABlower Relay/Wiring KitConvert Furn for A/C97-D2UO-O386AA0015 Duct Conn + 87FB0005 Fir BaseFloor to Duct-1 in. 70 popening90-CABEXTABlower Relay/Wiring KitConvert Furn for A/C97-1008-3/12A1A/C Blower, 3 Speed-1/3 HP2-4 Ton A/C	ACCESSORIES							
PARTINO. Developmental for the problem of				NOTES				
AVENTY2FALDody, Roof Jack, Gas-FLATHeight A'- Stin 107 in.90-RJS2551-ALBody, Roof Jack, Gas-FLATHeight 'A'- 81 in 107 in.90-RJS2551-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 81 in 101 in.90-RJS2551-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 97 in 123 in.90-RJS3868-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 110 in 140 in.90-RJS6399-ALBody, Roof Jack, Gas-SLOPE 3/12Height 'B'- 135 in 171 in.90-RJS6399-ALBody, Roof Jack, GasUse w/ Gas Roof Jack Body90-RJTRCKit, Transit-Roof Jack, GasUse w/ Gas Roof Jack Body90-RTKCKit, Transit-Roof Jack, GasTrim out to inside RJ- pipe90-OUTXT16-ALRoof Jack Outdoor Extension-Gas 10"Extend pipes-frown-16 in.90-DCUO-OI86AA0013 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8 in.*STD90-DCUO-O286AA0013 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8 in.*STD90-DCUO-O286AA0015 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8 in.*STD90-DCUO-O386AA0015 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8 in.*STD90-DCUO-O386AA0015 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8 in.*STD90-DCUO-O386AA0015 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8 in.*STD90-DCUO-O386AA0015 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8 in.*STD90-DCUO-O386AA0015 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8 in.*STD90-DCUO-O386AA0015 Duct Conn + 87FB0005 Flr BaseFloor to Duct- 6 in8	00-PIF1720-AI Bo	dy Poot lack Gas-ELA	г	Hoight 'A'-	73 in - 85 in		72"	
Average Decky, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 81 in 107 in.         90-RJS1729-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 81 in 101 in.         90-RJS2851-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 97 in 123 in.         90-RJS2868-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 101 in 140 in.         90-RJS2868-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 135 in 171 in.         90-RJS6399-AL       Body, Roof Jack, Gas       Use w/ Gas Roof Jack Body         90-RJRC       Kit, Transit- Roof Jack-Cap & Labels       for transport-remove on site         90-RJS56       5-6/12 Slope, Roof Sadle Adapter       Add to RJS 3/12 Roof Jack         90-DCUO-O1       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in. 'STD         90-DCUO-O2       86AA0014 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in. 'STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in. 'STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in. 'STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in. 'STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in. 'STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base <td>90-RIF2551-ΔI</td> <td>dy Roof lack Gas-FLA</td> <td>Г</td> <td>Height 'A'-</td> <td>R1 in - 107 in</td> <td></td> <td></td> <td></td>	90-RIF2551-ΔI	dy Roof lack Gas-FLA	Г	Height 'A'-	R1 in - 107 in			
Vortin 27 AL       Body, Roof Jack, Gas-SLOPE 3/12       Treight B* of Int 101 in.         90-RJS2551-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 97 in 123 in.         90-RJS3868-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 110 in 140 in.         90-RJS3868-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 110 in 140 in.         90-RJS6399-AL       Body, Roof Jack, Gas       Use w/ Gas Roof Jack Body         90-RJCRWN-AL       Crown, Roof Jack, Gas       Use w/ Gas Roof Jack Body         90-RJTRC       Kit, Transit- Roof Jack-Cap & Labels       for transport-remove on site         90-DUXT16-AL       Roof Jack Inside Extension-Gas 16"       Extend pipes/crown-16 in.         90-DCUO-O1       86AA0013 Duct Conn + 87FB0005 FIr Base       Floor to Duct - 6 in8 in.*STD         90-DCUO-O2       86AA0015 Duct Conn + 87FB0005 FIr Base       Floor to Duct - 6 in8 in.*STD         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C	00_DIS1720_AL DO	dy Roof Jack, Gus-FLA	DE 3/12	Hoicht IDI 0	21 in - 101 in			
Non-Rock Store 2/12       Treight b - 7/ it 125 in.         90-RJS3868-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B' - 110 in 140 in.         90-RJS3868-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B' - 110 in 140 in.         90-RJS3868-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B' - 110 in 140 in.         90-RJS6399-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B' - 135 in 171 in.         90-RJCRWN-AL       Crown, Roof Jack, Gas       Use w/ Gas Roof Jack Body         90-RJTRC       Kit, Transit- Roof Jack-Cap & Labels       for transport-remove on site         90-OUTXT16-AL       Roof Jack Outdoor Extension-Gas 16"       Extend pipes/crown-16 in.         90-DCUO-O1       86AA0013 Duct Conn + 87FB0005 FIF Base       Floor to Duct - 1 in4 in.         90-DCUO-O2       86AA0015 Duct Conn + 87FB0005 FIF Base       Floor to Duct - 6 in8 in.*STD         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C	00-PIS2551-AL BO	dy Roof Jack, Gas-SLO	DE 3/12		7 in - 123 in			
20:00000 PAL       Body, Roof Jack, Outs Stort E 9/12       Treight 'B'- 140 m.         90:RJS6399-AL       Body, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 135 in 171 in.         90:RJS6399-AL       Gody, Roof Jack, Gas-SLOPE 3/12       Height 'B'- 135 in 171 in.         90:RJCKWN-AL       Crown, Roof Jack, Gas       Use w/ Gas Roof Jack Body         90:RJTRC       Kit, Transit- Roof Jack-Cap & Labels       for transport-remove on site         90-OUTXT16-AL       Roof Jack Outdoor Extension-Gas 16"       Extend pipes/crown-16 in.         90-DCUTX116-AL       Roof Jack Inside Extension-Gas 10"       Extend niside pipes-10 in.         90-DSUS56       5-6/12 Slope, Roof Saddle Adapter       Add to RJS 3/12 Roof Jack         90-DCUO-O1       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in.*STD         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C	90-RIS3868-AI Do	dy Roof lack Gassic	DPE 3/12	Height 'B' 1	10 in - 140 in	1		
90-RJCGWN-AL       Crown, Roof Jack, Gustach, Gustach, Gas       Use w/ Gas Roof Jack Body         90-RJCRWN-AL       Crown, Roof Jack, Gas       Use w/ Gas Roof Jack Body         90-RJTRC       Kit, Transit-Roof JackCap & Labels       for transport-remove on site         90-OUTXT16-AL       Roof Jack Outdoor Extension-Gas 16"       Extend pipes/crown-16 in.         90-INSXT10-AL       Roof Jack Inside Extension-Gas 10"       Extend inside pipes-10 in.         90-RUS56       5-6/12 Slope, Roof Saddle Adapter       Add to RJS 3/12 Roof Jack         90-DCUO-O1       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 1 in4 in.         90-DCUO-O2       86AA0014 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in12 in.         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 8 in12 in.         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 8 in12 in.         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C	00_DIS6200_AL BO	dy Roof Jack, Gas-SLO	DE 3/12	Hoicht ID 1	35 in - 171 in	0		
20-TRX-RNG       Ceiling Trim Ring, Roof Jack       Ose W/ Gus Kool Jack Body         90-TRM-RNG       Ceiling Trim Ring, Roof Jack       Trim out to inside RJ- pipe         90-RJTRC       Kit, Transit-Roof Jack-Cap & Labels       for transport-remove on site         90-OLTXT16-AL       Roof Jack Outdoor Extension-Gas 16"       Extend pipes/rown-16 in.         90-INSXT10-AL       Roof Jack Inside Extension-Gas 10"       Extend inside pipes-10 in.         90-INSX56       5-6/12 Slope, Roof Saddle Adapter       Add to RJS 3/12 Roof Jack         90-DCUO-O1       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 1 in4 in.         90-DCUO-O2       86AA0014 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in12 in.         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 8 in12 in.         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 8 in12 in.         90-DEUWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C		ay, NOU JUCK, OUS-SLU	1 L J/ 1 Z		Boof Jack Berly	0		
20-INVENTIC       Centry Internet King, Roof Jack       Internet King, Roof Jack       Internet King, Roof Jack         90-RITRC       Kit, Transit- Roof Jack-Cap & Labels       for transport-remove on site         90-OUTXT16-AL       Roof Jack Inside Extension-Gas 16"       Extend ippes/crown-16 in.         90-RISS56       5-6/12 Slope, Roof Saddle Adapter       Add to RJS 3/12 Roof Jack         90-DCUO-OI       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 1 in4 in.         90-DCUO-O2       86AA0014 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in12 in.         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C		Juin, ROOI JACK, Gas	ck	Trim out to im	ido Planino			
Average       Rul, ituitistic Roof JackCup & tablets       For itransport-femore on site         90-OUTXT16-AL       Roof Jack Outdoor Extension-Gas 16"       Extend ippes/crown-16 in.         90-INSXT10-AL       Roof Jack Inside Extension-Gas 10"       Extend ippes/crown-16 in.         90-RJS56       5-6/12 Slope, Roof Saddle Adapter       Add to RJS 3/12 Roof Jack         90-DCUO-OI       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 1 in4 in.         90-DCUO-O2       86AA0014 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in.*STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in.*STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in.*12 in.         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C		Transit Past Incl. C	uk n & labala	for transition ins				
20-0010-10-AL       Roof Jack Coldoor Extension-Gas 10"       Extend pipes/forwn-16 in.         90-INSXT10-AL       Roof Jack Inside Extension-Gas 10"       Extend pipes/forwn-16 in.         90-RJS56       5-6/12 Slope, Roof Saddle Adapter       Add to RJS 3/12 Roof Jack         90-DCUO-O1       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct-1 in4 in.         90-DCUO-O2       86AA0014 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in.*STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 8 in12 in.         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C		of lack Outdoor Fut	ion-Cres 14"	Extend -:-	/crown-14 in	L .		
20-IN COAL       Roof Jack Inside Extension-Gas TO       Extension-Gas TO <td></td> <td>of Jack Outdoor Extension</td> <td></td> <td>Extend pipes</td> <td>rinos 10 :-</td> <td></td> <td>L</td> <td>0</td>		of Jack Outdoor Extension		Extend pipes	rinos 10 :-		L	0
20-DGUO-O1       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct-1 in4 in         90-DCUO-O2       86AA0013 Duct Conn + 87FB0005 Flr Base       Floor to Duct-1 in4 in         90-DCUO-O2       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct-3 in8 in*STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct-3 in8 in*STD         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C	ODDIS54	4/12 Slame Dr. Co. L			12 Poof Incl	<b>N</b> .		
20-DCUO-O2       86AA0014 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in.*STD         90-DCUO-O2       86AA0014 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 6 in8 in.*STD         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 8 in12 in.         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 8 in12 in.         90-DCUO-O3       86AA0015 Duct Conn + 87FB0005 Flr Base       Floor to Duct- 8 in12 in.         90-DRUWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C		J/ 12 Siope, Koot Sadd			1 in 4 in			
20-DCUO-O2       86AA0014 Duct Conn + 87 BOUUS FIF Base       Floor to Duch 6 in8 in12 in.         90-DCUO-O3       86AA0015 Duct Conn + 87 FB0005 FIF Base       Floor to Duch 8 in12 in.         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C         37-1008-3/12A1       A/C Blower, 3 Speed-1/3 HP       2-4 Ton A/C		AAUUIS DUCT Conn + 2	OF FOULUS FIL BO		4 in 0 i #CTD			
Your Cource Cos       BOAADULIS Duct Conn + 87 PBUOUS FIL Base       Ploor to Duct 8 in12 in.       "B" Cabinet       "A" Cabinet         90-CABEXT4       White, Top, Cabinet Extender Plate       Fill alcove 76" top opening       "Blower Relay/Wiring Kit       Convert Furn for A/C       "B" Cabinet       "A" Cabinet         90-BLWRELAY       Blower Relay/Wiring Kit       Convert Furn for A/C       2-4 Ton A/C       2-4 Ton A/C       Ton A/C       Ton A/C	70-DC0O-OZ 86	AAUUI4 Duct Conn + 2	OZEDOOOS EL S	ise Floor to Duct	- ο inσ inδID			
PO-BLWRELAY         Blower Relay/Wiring Kit         Convert Furn for A/C           37-1008-3/12A1         A/C Blower, 3 Speed-1/3 HP         2-4 Ton A/C		AAUUIS DUCT Conn + ?	0/ FOUUUS FIR BO	ise   Floor to Duct-	- o ini∠ in.	"B" Cabinet	"	A" Cabinet
zv-buynetki         blower keldy/ viring Nit         Convert runn for A/C           87-1008-3/12A1         A/C Blower, 3 Speed-1/3 HP         2-4 Ton A/C	90-DCUO-O3 86	hite Ten Calai 15 1	dar DI	E:111	ton one-in-			
p/-1000-3/12A1 A/C blower, 3 Speed-1/3 TP Z-4 Ion A/C	90-DCUO-O3 86 90-CABEXT4 W	hite, Top, Cabinet Exten	ider Plate	Fill alcove 76	top opening			
	P0-DCUO-O3         86           P0-CABEXT4         W           P0-BLWRELAY         Block	hite, Top, Cabinet Exten wer Relay/Wiring Kit	ider Plate	Fill alcove 76	for A/C			

#### SAFETY CONSIDERATIONS



- **ELECTRIC POWER** turn off all electrical power to furnace before performing any maintenance or service on unit. Failure to take this precaution may result in personal injury due to electrical shock.
- **SERVICE** a qualified service technician should ٠ service this unit. Fuel burning appliances can generate toxic flue products. Modification of the appliance can cause carbon monoxide in deadly amounts. To prevent a safety hazard, maintain this appliance in a safe operating manner and do not modify.
- **DO NOT** modify vent or operate the unit with a blocked vent or inlet air pipe.
- **DO NOT** re-drill a burner orifice. If the orifice size must be changed, use only a new orifice.
- **DO NOT** use matches, lighters, candles, or other sources of open flame to check for gas leaks.
- **PROPER** maintenance for this unit requires certain mechanical skills and tools. If you are at all uncertain, contact your Heating Service Co. for maintenance and service.
- **CONSULT** with a service technician for any problems or questions you may have pertaining to this appliance.
- **ALWAYS** inspect the appliance before starting a new heating season, paying special attention to vent pipes and fuel lines.

**NOTE:** The words "Shall" or "Must" indicate a requirement, which is essential to satisfactory and safe furnace performance.

The words "Should or "May" indicate a recommendation which may be helpful or enhance performance.

# **INSTALLATION STANDARDS**

# CODE COMPLIANCE

The installer shall become familiar with and follow all local codes and regulations which govern the installation of this furnace. Where applicable, local codes may take precedence.

- Federal Manufactured Home Construction and Safety Standards - HUD Title 24, Part 3280.
- National Fuel Gas Code ANSI-Z223.1/NFPA-54
- Unit electrical wiring and grounding shall comply with National Electrical Code - ANSI/NFPA-70.
- "Manufactured Housing" NFPA-501 and "Fire Safety Criteria for Mobile Home Installations - NFPA 501A.
- "Recreational Vehicles" ANSI-119-2/NFPA-501C

## HIGH ALTITUDE INSTALLATION

For elevation above 2,000 feet derate furnace input 4% for each 1,000 feet of elevation above sea level. Furnace deration is accomplished by reducing the burner orifice size. See DERATING CHART for orifice size and CONVERSION INSTRUCTIONS, Page16.

# **INSTALLATION CLEARANCES**

These furnaces are design certified for the following minimum clearances from combustible materials in alcove or closet installations.

Top
Sides0 in.*
Back
Alcove-front of furnace
Closet- front of furnace
Duct
Vent/Roof Jack0 in.

- If the return air opening is below the top of the furnace, clearance to the side or rear shall be 6″.
- \*\* See Return Air for clearances less than 6".

Locate furnace to ensure adequate room for service access to all vent connections, controls and the heat exchanger. A front clearance of 18" minimum (24" recommended) shall be provided by a closet door or spacing away from a facing wall or partition.

For installation on combustible flooring (except carpeting) using manufacturers supplied floor base P/N 87FB0005 and duct connector Series P/N 86AA001-.

# **RETURN AIR**

### **ALCOVE INSTALLATION**

The furnace may be installed free standing or in an alcove with a free flow of air back to the furnace. A minimum of 18" shall be provided at the front for return air and service access.

#### **CLOSET INSTALLATION - 6 in.**

NOTE: If return air is through a side wall, there must be a minimum of 6-in. clearance from side wall to furnace in addition to 6-in. minimum clearance from inside of closet door to front of furnace.

If a louvered door complying with the minimum air requirements is used, the front clearance may be reduced to 1".

### CLOSET INSTALLATIONS Additional Requirements

Concerning under floor or ceiling return air systems, the following items (1-10) must be adhered to:

1. The return-air opening into the closet, regardless of location, is to be sized not less than specified on the appliance rating plate.

2. If the return-air opening is located in the floor of the closet (versus the vertical front or side wall), the opening is to be provided with means to prevent its inadvertent closure by a flat object placed over the opening.

3. The cross-sectional area of the return duct system (when located in the floor or ceiling of the manufactured home) leading into the closet is to be not less than that of the opening specified on the appliances rating plate.

4. The total free area of openings in the floor or ceiling registers serving the return-air duct system is to be not less than 150% of the size opening specified on the appliance rating plate. At least one such register is to be located where the likelihood of its being covered by carpeting, boxes, and other objects is minimized.

5. Materials located in the return duct system have a flame spread classification of 200 or less.

6. Non-combustible pans having one-inch upturned flanges are located beneath openings in the floor return duct system.

7. Wiring materials located in the return duct system conform to Article 300-22 (B&C) of the National Electric Code, ANSI / NFPA-70.

8. Gas piping is not run in or through the return duct system.

9. The negative pressure in the closet, as determined by test with the air-circulating fan operating at high heating speed and the closet door closed, is to be not more negative than minus 0.05-inch water column.

10. For floor return systems, the manufactured home manufacturer or installer shall affix a prominent warning where it is easily read when the closet door is open.

The marking shall read:

# 

HAZARD OF ASPHYXIATION DO NOT COVER OR RESTRICT FLOOR OPENING, or equivalent

#### **RETURN AIR**



### **ALCOVE INSTALLATION**



#### **CLOSET INSTALLATION**



\*SPECIAL - 1"- 6" CLOSET INSTALLATION

# ALCOVE

A minimum of 18" front clearance to a facing wall or partition is needed for service access and return air.

Provide a removable panel above the furnace for access to roof jack and pipe connections on top of the furnace.

# **CLOSET - 6" CLEARANCE**

A minimum of 250 sq. in free open area return opening is required to the closet. The return opening may be anywhere on or above the closet door. If the return is through a side wall, and the opening is below the top of the furnace, a minimum of 6-in. clearance from side wall to furnace must be provided in addition to 6-in minimum clearance from inside of closet door to furnace.

If a 5T A/C will be installed, the return shall be increased to 390-sq. in. open area.

# SPECIAL-CLOSET, 1" CLEARANCE

For closet installations with less than 6-in. clearance from inside of closet door to furnace, a louvered closet door must be used with a min. of 250 sq. in open area directly in line with the furnace top louver panel as shown. A fully louvered closet door may be used.

If a 5T A/C will be installed, the return shall be increased to 390 sq. in open area directly in line with the furnace louver panel.

# AIR DISTRIBUTION SYSTEMS

The supply duct system must be designed so that static pressure in the duct does not exceed the static pressure listed on the furnace rating plate. Location, size and number of registers should be selected on the basis of best air distribution and floor plan of the home. A manual to review before selecting a duct system is Manufactured Housing Duct Systems: Guide to Best Practices by Manufactured Housing Research Alliance (MHI-MHRA).

Typical duct systems are shown below: FIG. A, B, C



# **DUCT CONNECTOR / BASE INSTALLATION**



The furnace may be on combustible flooring (expect carpeting) when installed with 86AA001-Duct Connector and 87FB0005 Floor Base. 1. Cut a 14-1/8 x 14-1/8 opening in floor. Fig. D.



FIG.D Duct Connector Opening, Fuel & A/C Lines

2. Orient duct connector to align 11x13 tabbed opening with floor duct. See FIG. E



- FIG. E- 86AA001- Duct Connector
- 1. Place duct connector tab end down, thru floor opening to rest on top duct surface.
- 2. Use eight (8) oval holes on tab surfaces as locators and mark for 11x13 duct opening; remove duct connector.
- 3. Connect marks with straight lines and cut out the duct opening slightly outside the lines.
- 4. Attach four (4) foam tape gaskets (provided) to duct connector alongside tabs for a 11x13 perimeter seal.
- 5. Replace duct connector/gaskets through floor opening.
- Bend tabs down into the duct opening and fold back 180 degrees, securing duct connector. Add screws if needed.
- 7. Slit the 4 corners of the connector extending above the floor. Bend sides over onto the floor surface. Fig. F
- 8. Install floor base over floor opening with 13x13 flanges down. Nail to floor thru 4 holes. Fig. G



# **INSTALL FURNACE**

Prior to installing furnace, fuel and A/C line openings may be cut in. See FIG.D

- 1. Remove upper and lower furnace doors.
- 2. Slide furnace onto floor base and push back until cabinet is against rear flange of floor base.
- Secure furnace to floor with fasteners/screws at right and left front inside corners of cabinet.
- 4. Attach pipe strap at top of furnace to alcove or closet framing, or fasten through furnace front edge cabinet sides to wood framing.



### FIG. H - RJ SERIES ROOF JACK

THE SEALED COMBUSTION VENT SYSTE	M CONSISTS OF:	FURNACE SERIES	FURNACE SERIES
ROOF JACK BODY AND ROOF JA	ACK CROWN	G18D-A , 56" H	G17D-B, G18D-B, 72" H
PART NO.	FOR: FLAT OR	"A"	"B"
ROOF JACK BODY	SLOPE ROOF	ADJUSTABLE HEIGHT	ADJUSTABLE HEIGHT
90-RJF1729-AL	FLAT	73"- 85 "	89" - 101"
90-RJF2551-AL	FLAT	81"- 107"	97" - 123"
90-RJS1729-AL	3/12	73" - 85 "	89" - 101"
90-RJS2551-AL	3/12	81" - 107"	97" - 123"
90-RJS3868-AL	3/12	94" - 124"	110" - 140"
90-RJS6399-AL	3/12	119" - 155"	135" - 171"
PART NO.	MUST USE		
ROOF JACK CROWN	WITH:		
90-RJCRWN-AL	ROOF JACK BODY		

Mortex Products, Inc. / FT. WORTH, TX 76106 G17 / G18 Installation Instructions Printed 04/04

# **RJ - SERIES ROOF JACK**

у	G17D and G18D are sealed combustion furnaces tested and listed for use <b>only</b> with <b>RJ - Series Roof Jack</b>
	Venting System. Furnace exhaust gases vent outdoors
	through the inner pipe of the RJ - Series "pipe-within-a-pipe"
	vent system. The space between the outer and inner pipes is
ht	used to bring in outside combustion air for the burner.

et WARNING: Do <u>not</u> install furnace with any other type of venting system. A HAZARDOUS CONDITION MAY RESULT.

# **CUTTING ROOF JACK OPENING**

A proper installation of the roof jack requires that openings in roof and ceiling be on the same vertical centerline as the furnace flue collar. See FIG. I



# FIG. I - ROOF CUT-OUT

Mark the center point on the ceiling and scribe a 4" radius (8" diameter) around this mark. If furnace is in place during this step, cover the furnace and flue opening to prevent debris from entering flue.

# **INSTALLING ROOF JACK**

The roof jack body should be secured to the furnace before the roof flashing is secured to the roof.

- 1. Insert roof jack body into opening in the roof.
- 2. From above, center the roof jack body aligning with the furnace collar.
- 3. From inside the home, pull down 4-3/16" D flue pipe seating the pipe fully and firmly over the furnace flue collar.
- 4. Next pull down the 7" D combustion air pipe seating it over the mating furnace collar. Rotate the combustion air pipe lining up to the screw hole on the 7" furnace collar.
- 5. Check and make sure the combustion air pipe is <u>fully</u> <u>seated</u>. Then drive a #10 sheet metal screw attaching pipe firmly to furnace collar.
- 6. Install optional ceiling trim ring, <u>90-TRM-RNG</u>
- 7. On the roof, caulk liberally under the roof jack flashing.
- 8. Drive nails or screws through the flashing onto the roof surface about 1-1 \_ inches apart. Caulk again to ensure a leak tight joint.
- 9. Install roof jack crown and fasten to roof jack body with three (3) screws (provided) using pre-punched holes.

# **INSTALLATION IN SNOW REGIONS**

When the combustion air inlet to the roof jack is blocked with snow, the furnace will not operate properly due to the depleted combustion air supply.

Therefore, if the furnace will be located in regions where snow accumulation on the roof exceeds 7" or in H.U.D. Snow Load Zones, a roof jack extension- <u>Part No. 90-OUTXT16-AL-</u> is recommended.

# **ROOF JACK ON HI-PITCH ROOF**

To install the RJS (3/12) Series Roof Jack on roofs which have a slope between 4.5/12 - 6/12, install a <u>Part No.</u> <u>90-RJS56 Roof Saddle</u>, Fig. J. The combined assembly of the RJS Roof Jack and Roof Saddle will conform to the higher roof pitch. If roof pitch is greater than 6/12, field fabricate a suitable adapter, or consult with factory.



FIG. J - 90-RJS56 ROOF SADDLE, HI PITCH ROOF

# **TRANSIT ROOF JACK - MODE**

RJF and RJS Roof Jacks feature a removable top crown. The crown is normally installed at the factory. If road clearance for the home requires that vent caps or crowns remain uninstalled for road clearance, a <u>Transit Mode Kit</u>, <u>Part No.</u> <u>90-RJTRC</u> is available. The kit, when used, allows for home shipment with the crown shipped inside the home. The kit includes a weather cap and four (4) warning tags.



FIG. K - 90-RJTRC TRANSIT MODE INSTALLATION

# **INSTALL TRANSIT ROOF JACK**

#### AT MANUFACTURED HOME FACTORY

- 1. Roof Jack body (less crown) installed per instructions in this manual.
- 2. Install weather cap from 90-RJTRC kit on RJF or RJS upper body.
- 3. The 3 warning tags supplied <u>must be attached</u> as follows:
- To homes gas line connection point
- To furnace gas control valve
- To furnace wall thermostat
- 4. Upper crown, in original carton must be stored in a prominent location inside the home until crown installation is made at site location.

#### AT MANUFACTURED HOME SITE

- 5. The transit weather cap is removed and
- 90-RJCRWN-AL crown installed per these instructions. See FIG K. Make sure crown engages RJ-body pipes above the roof and crown is secured with 3 sheet metal screws.
- 7. Transit system warning tags are discarded.

# 

Any attempt to operate furnace before replacing transit-mode Weather Cap with Roof Jack Crown may result in hazard of fire, explosion or asphyxiation.

# 

To avoid electric shock, personal injury, or death, turn off the power at the disconnect or the main service panel before making any electrical connections.

### **CONNECT POWER SUPPLY**

- 1. Remove the furnace control panel cover.
- 2. Insert 115 V wiring through a strain relief bushing on the left side of the furnace.
- 3. Connect the HOT wire to the BLACK pigtail lead; connect the NEUTRAL wire to the WHITE pigtail lead. Secure the connections with suitable wire nuts and wrap with electrical tape. Refer to Pgs. 11 thru 13 and one of the following Fig's L,M,N,O,P or Q to select the proper wiring diagram for connections
- 4. Connect the GROUND wire to a grounding screw in the control panel.

5. Reinstall and secure the control panel cover with screws.

# WALL THERMOSTAT

The location of the wall thermostat is important, as it must sense the desired temperature of the entire conditioned space. Choose a location 4-5 feet above the floor, preferably on an inside wall in an area with good air circulation. Stay away from lamps and air registers and do not install behind a door. Choose a location where the temperature will be reasonably representative of other living areas the thermostat is controlling.

CONNECT THERMOSTAT WIRES

When installing a furnace with a cooling coil compartment, use of a five-conductor thermostat cable is recommended. This will allow easy installation of an air conditioning system at a later date.

- 1. Insert 24V wires through the small plastic bushing on the left side of the furnace.
- 2. Connect low voltage wires to the color coded low voltage pigtails at top of the control panel.
- 3. Connect low voltage wires to the wall thermostat.

NOTE: The use of 18-gauge wire is highly recommended to carry the thermostat load. Use of smaller conductors risks operational problems caused by loose or broken conductors or wire that is too small to carry the load. Any such problems are the responsibility of the installer.

With conductors smaller than 18 gauge, observe the following guidelines.

Thermostat wire length -furnace to thermostat-	Thermostat wire gauge
0-45 feet	22
0-70 feet	20

# **GAS PIPING**

Supply piping must be sized in accordance with recommendations found in National Fuel Gas Code ANSI Z223.1/NFPA-54. In addition materials used in manufactured homes must comply with requirements contained in HUD Title 24, Section 3280.705 as well as A119.1 and A119.2 for recreational vehicles.
See chart in this manual for minimum sizes for NAT and LP pipe and tubing serving the <u>furnace only.</u>
NOTE: The gas inlet on the gas control valve is 1/2-14NPT. The gas line may be installed through the bottom casing or on left or right side of furnace.

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Take care when connecting the gas line to the furnace gas valve. Use suitable wrenches to support the gas valve when tightening fittings to prevent mis-alignment of the attached burner orifice. Do not damage the gas valve as improper heating, explosion, fire or asphyxiation may result.

Do not use matches, lighters, candles or other open flame to check for leaks. Use a soap or water solution or a leak detector.

Do not pressure test the fuel system at more than 14''W.C. pressure once furnace has been connected to the gas line. Overpressure may void the warranty and damage the valve which could cause an explosion, fire or asphyxiation.

# GAS PRESSURE

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TYPE GAS	INLET GAS	PRESSURE
	PRESSURE	TO BURNER
NATURAL	7″ W.C.	3-1/2″ W.C.
PROPANE	11″ W.C.	10″ W.C.

GAS PIPE AND TUBING-MIN SIZES							
MODEL	TYPE	LENGTH	PIPE	TUBING			
G17D	OF		SIZE	SIZE			
G18D	GAS	(FT.)	(IN.)	(IN.OD)			
		to 20	3/8	5/8			
	Natural	to 60	1/2	-			
060		to 70	-	3/4			
		to 40	3/8	-			
	Propane	to 70	-	5/8			
		to 80	1/2	-			
		to 20	-	5/8			
		to 50	1/2	-			
	Natural	to 60	-	3/4			
072		to 80	3/4	-			
075		to 30	3/8	-			
	Propane	to 60	-	5/8			
		to 80	1/2	-			
		to 40	1/2	3/4			
	Natural	to 50	-	3/4			
090		to 30	3/8	-			
	Propane	to 40	-	5/8			
		to 60	1/2	3/4			

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When converting gas control valve from or to Propane gas, it will be necessary to change the main burner orifice to prevent an underfired or overfired condition. The pressure regulator on the gas control valve must also be converted. See label on lower furnace compartment for full instructions.

If the gas input to the furnace is too high due to excessive gas pressure, wrong size burner orifice, no orifice, high altitude, etc., the burner flame will be sooty especially with Propane gas. This type of furnace operation can produce carbon monoxide, which could result in unsafe operation, explosion, and/or fire and asphyxiation.

**OPERATION** - Once system gas piping has been checked for leaks, operate the furnace using the lighting instructions on the front furnace panel, and:

- 1. Observe burner through viewport and make sure it ignites. The color of the flame when operating on natural gas will turn blue with yellow tips. On Propane, a significantly yellow flame can be expected. If flame is not the proper color call a qualified service technician for service.
- 2. Let furnace operate until blower cycles on. This takes about 2 to 2 1/2 minutes.
- 3. Turn thermostat down.
- 4. Observe burner to make sure it has shut off.
- 5. Let furnace cool and blower cycle off.



Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the furnace and allow burner to run until furnace cools down and blower shuts off before shutting off electrical supply.

## **IF FURNACE FAILS TO OPERATE PROPERLY:**

- 1. Check setting on wall thermostat and the position of the HEAT-COOL switch if air conditioning is installed
- 2. Check to make sure that electrical power is ON at the furnace and the furnace circuit breaker has not tripped.
- 3. Make sure that filters are clean and return grills are not obstructed. The supply registers should be open.
- 4. Be sure that the furnace flue and inlet piping has not been obstructed and is open. If the cause for failure is not obvious, do not attempt to service the furnace yourself. Call a qualified service agency or the gas supplier.





FIG. L - G18D060B, G18D075B, G18D090B - A/C READY



FIG. M - G18D060A, G18D075A, G18D090A - HEATING ONLY

## WIRING DIAGRAMS



FIG. N - G17D060, G17D070 - W/PILOT, HEATING



FIG. O - G17D060B, G17D070B - W/PILOT, A/C READY

# WIRING DIAGRAMS



FIG. P - G17D090 - W/PILOT, HEATING



FIG. Q - G17D090B - W/PILOT, A/C READY

## **REPLACEMENT PARTS**



ITEM NO.	USED ON FURNACE MODEL	PART NO	QUAN	DESCRIPTION
1	G18D060, G18D075, G18D090	R68DD0010	1	Pressure Switch, -0.20 N.O.
	G17D090	R68DD0010	1	Pressure Switch, -0.20 N.O.
2	G18D060, G18D075, G18D090	R71CA0006	2 ft	Silicon Tubing
	G17D090	R71CA0006	2 ft	Silicon Tubing
3	All	R68CA0005	1	Limit Switch, Manual, Upper-180F
4	G18D060, G18D075, G18D090	R86GF0050	1	Boost Blower Assembly, w/ gir orifices
	G17D090	R86GF0050	1	Boost Blower Assembly, w/air orifices
5	G18D060 G18D075 G18D090	R68GE0001	1	Integrated Control Board HSI
6	G18D060, G18D075, G18D090	R68GF0006	1	Gas Valve-for HSI Electric Ignition
Ū.	G17D060 G17D070 G17D090	R68GF0007	1	Gas Valve- for Standing Pilot Ignition
7		R68BKN007	1	Valve Bracket & Orifice Holder
8	G17D060 G17D070 G18D060	R86GE0051	1	Heat Exchanger & Gaskets
0	G18D075 G18D090 G17D090	R86GE0052	1	Heat Exchanger & Gaskets
9	G18D060 G18D075 G18D090	R68GE0004	1	Flame Sensor
10	All G18D	R68DD0009	1	System Switch-SPST
10	All G17D-w/H2/10 Blower	R68DD0009	1	System Switch-SPST
	All G17D $w/A3/12$ or $A4/16$ Blower	R660D00007	1	System Switch-SPDT
11		P68GE0002	1	Transformer (115V-24V, 40VA)
12		P68CA0004	1	limit Switch- Open 140E-Close 110E
12		R00CA0004	1	Burner Assembly
15	C17D090	R00GF0053	1	Burner Assembly
		R00GF0054	1	Burner Assembly
1.4		R00GF0034	1	
14		R08GF0005	1	
15		R/6AA0002	2	Filter (10" x 20" x1")
16		R86GF0055	1	Door Panel-Upper
17		R86GF0123	1	Door Panel-Lower
	All (Short)	R86GF0119	1	Door Panel- Lower
18	All G1/D, G18D w/ H2/10 Blower	R65GF0001	1	Motor-1/4 HP
	All G1/D, G18D w/ A3/12 Blower	R65GF0002	1	Motor-1/3 HP
	All G17D, G18D w/ A4/16 Blower	R65GF0003	1	Motor-3/4 HP
19	All w/ A4/16 Blower -3/4HP	R86GF0056	1	Motor Mount Assembly
20	All w/ H2/10 Blower-1/4HP	R68DE0001	1	Capacitor- 10/370V
	All w/ A3/12 Blower-1/3HP	R68DE0002	1	Capacitor- 15/370V
	All w/ A4/16 Blower-3/4HP	R68DE0003	1	Capacitor- 25/370V
21	All	R69AB0001	1	Blower Wheel-10x8
22	G17D models w/factory A/C blower	R68AB0002	1	A/C Blower Relay
23	G17D090	R68AB0002	1	Comb Boost Blower Relay
25	All G17D	R68CA0007	1	Fan Switch
26	G17D060, G17D070	R68CA0006	1	Vent Limit- Manual Reset
27	All G17D	R68GF0009	1	Thermocouple
28	All G17D	R68GF0008	1	Pilot Burner
29	All G17D	R86GF0057	1	Pilot Tube
30	All	R86GF0058	4	Door Latch,set
31	G17D060	R87NBF007	1	Combustion Air Orifice
32	See Chart	72AG-XXX	1	Main Burner Orifice
33	All	R87NNE001	1	Filter Retainer Bracket

BURNER ORIFICE CHART- (FACTORY INSTALLED)						
MODEL	060	070	075	090		
NAT GAS	72AG-144, #27	72AG-157, #22	72AG-166, #20	72AG-177, #16		
LP GAS	72AG-089, #43	72AG-098, #40	72AG-101, #38	72AG-110, #35		

# INSTALLATION INSTRUCTIONS