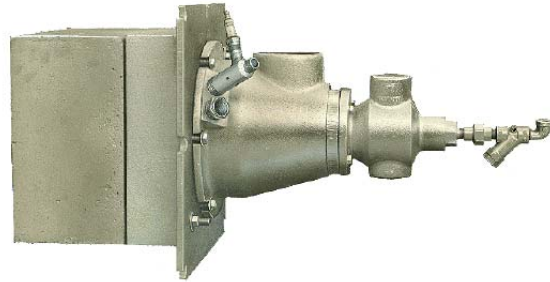


1460 SERIES COLD AIR GAS BURNER

CAPABILITIES

- High or low temperature furnaces
- High excess air 800% or more
- Ratio or tempered flame operation
- Nominal capacity range
100,000 to 3.5 MM Btu/hour
- Suitable for fiber or dense refractory
wall construction
- Gas only burner readily converted
to dual fuel burner



FEATURES

- Refractory baffle design
 - provides positive flame stabilization
 - shields burner internals from
furnace temperature
- Extra rugged port block and mounting
plate construction
 - high alumina blocks
 - thicker block refractory
 - cast metal mounting plate with
integral port container
 - hook bolt anchor system
 - simplified mounting requirements
- Heat resistant gas nozzle
- Cast body construction
- Integral fuel orifices

CONTROL

- Cross Connected Regulator
- Metered Flow

FLAME MONITORING

- U.V. Detector
- Flame Rod

APPLICATIONS

- Heat Treat Furnaces
- Forge Furnaces
- Tundish and Ladle Preheat or Drying
- Continuous Strip Lines
- Roller Hearths
- Plate Heat Treat Furnaces
- Re-circulating Car Type Heat Treat
Furnaces
- Ceramic Kilns
- Many other Applications

BURNER IGNITION

- Pilot
- Direct Spark

FUEL CAPABILITIES

- Natural Gas
- Coke Gas
- LP Gas (with air lance)
- Low Btu Mixed Gas
- Coal Gases

OPTIONS

- Light or heavy oil versions
- Air Lance
- Tile Lengths

CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

1460 SERIES COLD AIR GAS BURNER

CAPACITY CHART

Catalog No. 1460-	Air Pressure at Burner (1)		Gas Pressure at Burner (2)		Air Capability 100°F (38°C)		Flame Length 10% Excess Air		Direct Spark Igniter Part No. (optional)	Pilot Part No.
	inches wc	mbar	inches wc	mbar	scfh	Nm ³ /hr	feet	mm		
015	7	17.4	4.0	10.0	2,200	59	1.5	457	3500-146	3001-030
	10	24.9	5.7	14.1	2,630	71				
	15	37.3	8.6	21.4	3,220	86				
	20	49.8	11.4	28.4	3,720	100				
	28	69.7	16.0	39.8	4,400	118	2.0	610		
020	7	17.4	4.0	10.0	3,300	88	2.0	610	3500-146	3001-030
	10	24.9	5.7	14.2	3,940	106				
	15	37.3	8.6	21.4	4,830	129				
	20	49.8	11.4	28.4	5,580	150				
	28	69.7	16.0	39.8	6,600	177	2.5	762		
025	7	17.4	4.0	10.0	5,500	147	3.0	914	3500-146	3001-030
	10	24.9	5.7	14.2	6,570	176				
	15	37.3	8.6	21.4	8,050	216				
	20	49.8	11.4	28.4	9,300	249				
	28	69.7	16.0	39.8	11,000	295	3.5	1067		
030	7	17.4	4.0	10.0	8,250	221	3.5	1067	3500-146	3001-040
	10	24.9	5.7	14.2	9,860	264				
	15	37.3	8.6	21.4	12,100	324				
	20	49.8	11.4	28.4	13,950	374				
	28	69.7	16.0	39.8	16,500	442	4.5	1372		
03X	7	17.4	4.0	10.0	11,000	295	4.0	1219	3500-146	3001-040
	10	24.9	5.7	14.2	13,150	353				
	15	37.3	8.6	21.4	16,100	432				
	20	49.8	11.4	28.4	18,600	499				
	28	69.7	16.0	39.8	22,000	590	5.0	1524		
040	7	17.4	4.0	10.0	22,000	590	4.5	1372	3500-146	3001-060
	10	24.9	5.7	14.2	26,300	705				
	15	37.3	8.6	21.4	32,200	863				
	20*	49.8	11.4	28.4	37,200	997				
04X	7	17.4	4.0	10.0	33,000	885	5.0	1524	3500-146	3001-060
	10**	24.9	4.0	10.0	39,400	1,056				
060	28	69.7	16.0	39.8	70,800	1,914			3500-146	3001-060

*Not Recommended Above 20" wc

**Not Recommended Above 10" wc

- (1) Piping system should be reviewed to insure delivery of this pressure. On occasion the approach to the burner should be increased one size including valves, flexible nipples, etc.
- (2) Gas orifices for pressures other than those shown are available at additional cost.
(Basis: natural gas with 10% excess air.)

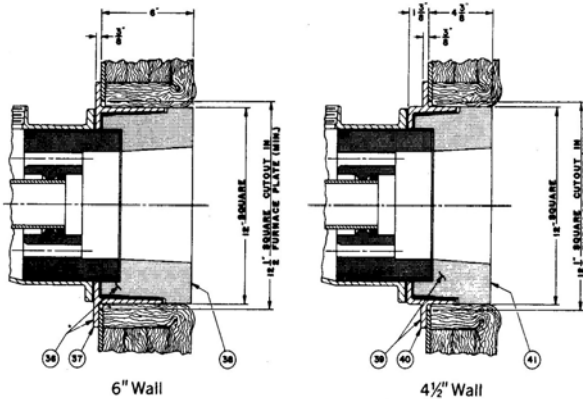
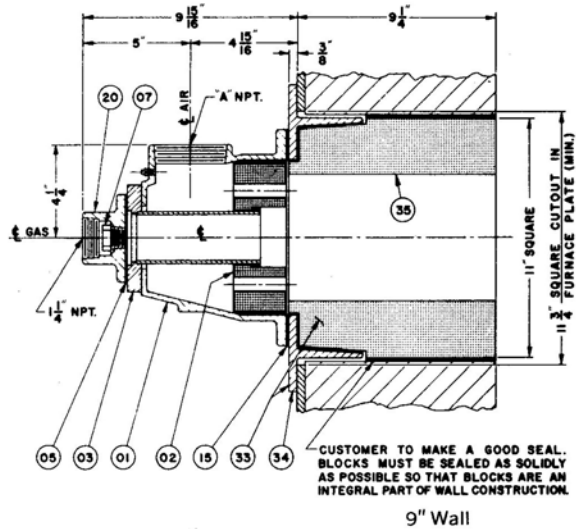
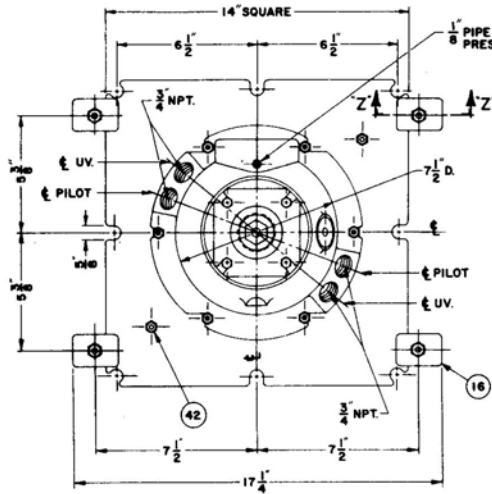
Excess air = 1000%

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION.

CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

1460 SERIES COLD AIR GAS BURNER

-015 THRU -03X



PARTS LIST FOR ALL BURNERS

Part Number	Description
01	Body
02	Baffle
03	Gas Nozzle Assembly
05	Gasket (gas nozzle)
06	Observation Port (not shown)
07	Gas Orifice
15	Gasket (burner body)
16	Clamp
20	Gas Adapter Flange
32	Pilot (not shown)
33	Mounting Plate and Block Assembly – 9" Wall
34	Mounting Plate – 9" Long Block
35	Block – 9" Wall
36	Mounting Plate and Block Assembly – 6" Wall
37	Mounting Plate – 6" Long Block
38	Block – 6" Wall
39	Mounting Plate and Block Assembly – 4 1/2" Wall
40	Mounting Plate – 4 1/2" Long Block
41	Block – 4 1/2" Wall
42	Wedge Bolt

Fold blanket towards furnace plate to allow for shrinkage of blanket and maintain seal to prevent furnace gases from traveling along furnace plate.

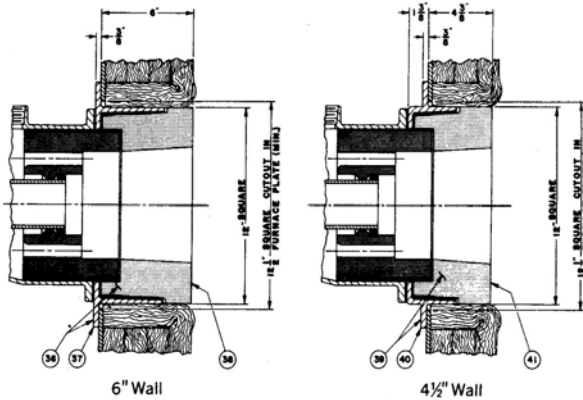
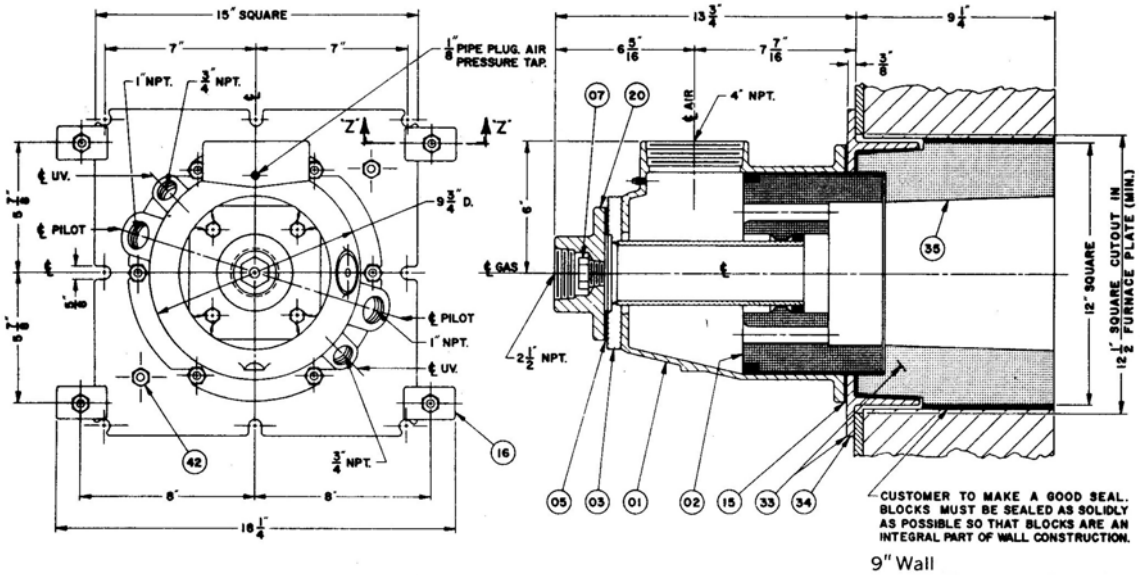
Part number must be preceded by catalog number.
 Example: To order Block Part 35 for 1460-030 Burner
 Specify 1460-030 -- 35
 (catalog number) (part number)

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION.

CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

1460 SERIES COLD AIR GAS BURNER

-040 AND -04X



PARTS LIST FOR ALL BURNERS

Part Number	Description
01	Body
02	Baffle
03	Gas Nozzle Assembly
05	Gasket (gas nozzle)
06	Observation Port (not shown)
07	Gas Orifice
15	Gasket (burner body)
16	Clamp
20	Gas Adapter Flange
32	Pilot (not shown)
33	Mounting Plate and Block Assembly – 9" Wall
34	Mounting Plate – 9" Long Block
35	Block – 9" Wall
36	Mounting Plate and Block Assembly – 6" Wall
37	Mounting Plate – 6" Long Block
38	Block – 6" Wall
39	Mounting Plate and Block Assembly – 4 1/2" Wall
40	Mounting Plate – 4 1/2" Long Block
41	Block – 4 1/2" Wall
42	Wedge Bolt

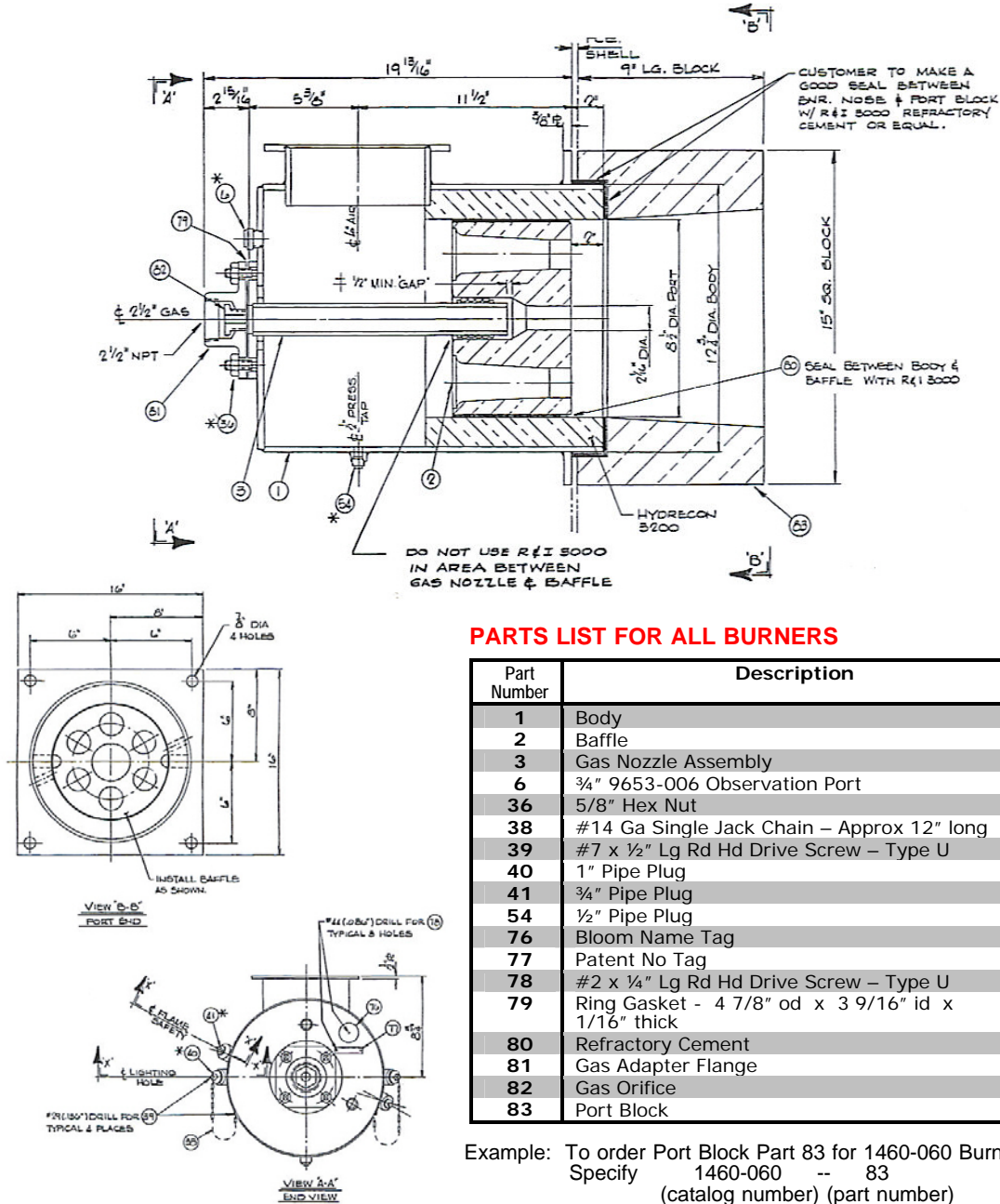
Fold blanket towards furnace plate to allow for shrinkage of blanket and maintain seal to prevent furnace gases from traveling along furnace plate.

Part number must be preceded by catalog number.
 Example: To order Block Part 35 for 1460-040 Burner
 Specify 1460-040 -- 35
 (catalog number) (part number)

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION.
CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

1460 SERIES COLD AIR GAS BURNER

-060



PARTS LIST FOR ALL BURNERS

Part Number	Description
1	Body
2	Baffle
3	Gas Nozzle Assembly
6	3/4" 9653-006 Observation Port
36	5/8" Hex Nut
38	#14 Ga Single Jack Chain – Approx 12" long
39	#7 x 1/2" Lg Rd Hd Drive Screw – Type U
40	1" Pipe Plug
41	3/4" Pipe Plug
54	1/2" Pipe Plug
76	Bloom Name Tag
77	Patent No Tag
78	#2 x 1/4" Lg Rd Hd Drive Screw – Type U
79	Ring Gasket - 4 7/8" od x 3 9/16" id x 1/16" thick
80	Refractory Cement
81	Gas Adapter Flange
82	Gas Orifice
83	Port Block

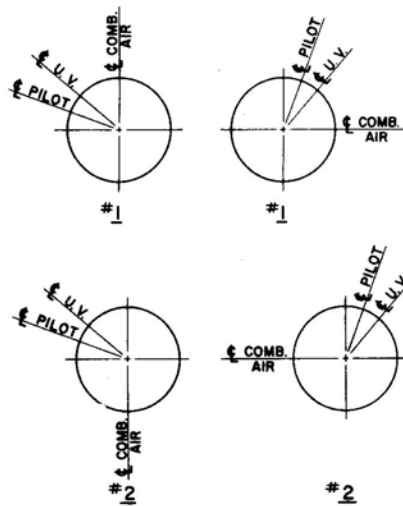
Example: To order Port Block Part 83 for 1460-060 Burner
Specify 1460-060 -- 83
(catalog number) (part number)

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION

CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

1460 SERIES COLD AIR GAS BURNER

PILOT AND U.V. LOCATIONS FOR ALL SIZE BURNERS



- 1) When utilizing U.V. monitoring it is recommended that the U.V. be installed above the horizontal center line adjacent to pilot.
- 2) Pilot and U.V. connections will be located position #1 unless specified otherwise.

APPROXIMATE BURNER WEIGHTS

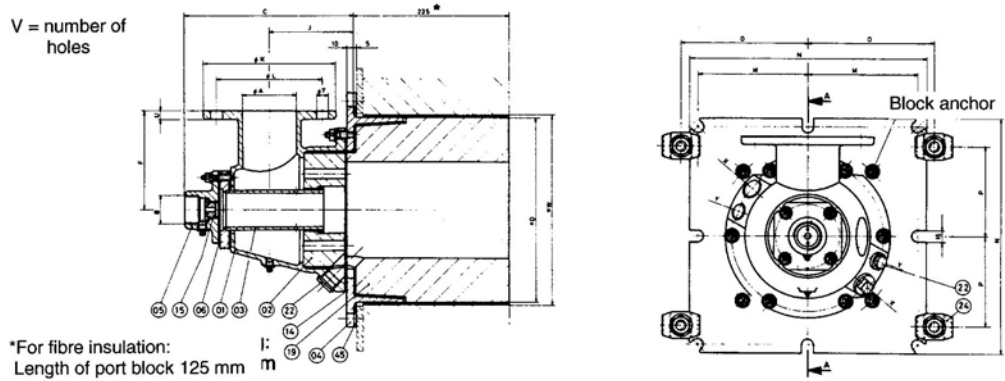
Catalog No. 1460-	A* inches	9" Wall		6" Wall		4 ½" Wall	
		lbs	kg	lbs	kg	lbs	kg
015	1 ½	145	66	105	48	100	45
020	2	145	66	105	48	100	45
025	2 ½	145	66	105	48	100	45
030	3	145	66	105	48	100	45
03X	3	145	66	105	48	100	45
040	4	210	95	170	77	165	75
04X	4	210	95	170	77	165	75
060	6	270	123				

* A = Air Connection

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION

CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

1460M/1470M SERIES COLD AIR GAS BURNER



CAPACITY TABLE

PARTS LIST FOR ALL BURNERS

Part Number	Description
01	Body
02	Air Baffle
03	Gas Nozzle Assembly
04	Burner Mounting Plate
05	Gas Connection
06	Gasket
14	Gasket
15	Gas Orifice
19	Burner Block
22	Observation Port
24	Mounting Clamp
45	Gasket (by customer)

Catalog No. 1460M- 1470M-	Pressure at burner mbar	Combustion Air Quantity in Nm ³ /h at temperatures in °C						
		-cold- Type 1460	Type 1470 – Air Preheat					
			20	300	350	400	450	500
0050	30	149	106	101	98	94	91	88
	40	172	122	117	113	103	105	102
	50	192	137	130	126	121	117	114
0065	30	231	164	157	152	148	141	137
	40	267	189	181	174	168	162	158
	50	298	211	202	194	188	182	176
0080	30	349	248	238	229	221	213	207
	40	403	285	274	264	255	246	239
	50	450	319	306	295	285	275	267
0100	30	558	396	380	366	353	341	331
	40	644	457	439	422	407	394	382
	50	720	511	490	471	456	440	427

Part number must be preceded by catalog number.
 Example: To order Block Part 19 for 1460M-040 Burner
 Specify 1460M-040 -- 19
 (catalog number) (part number)

Catalog No. 1460M- 1470M-	Connection		General Dimensions (mm)															Pilot Burner Catalog No.	Weight per item kg	
	Air DN PN10	Gas DN R	Type	A	B	C	D	F	J	K	L	M	N	O	P	T	U			V
0050	50	.75"	254	280	150	126	165	125	165	356	190	136	18	13	4	290	R 1"	R .75"	5015	90
0065	65	1"	254	280	150	126	185	145	165	356	190	136	18	13	4	290	R 1"	R .75"	5015	95
0080	80	1.25"	254	280	150	126	200	160	165	356	190	136	18	13	4/8	290	R 1"	R .75"	5020	105
0100	100	2"	342	342	180	189	220	180	178	380	203	149	18	13	8	314	R .75"	R 1"	5025	125

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION

CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations