RIELLO 40 SERIES POWER GAS BURNER MODEL G900 NATURAL & PROPANE GAS

INSTALLATION INSTRUCTIONS AND OWNER'S HANDBOOK

CAUTION: All Riello power gas burners MUST be installed by certified or licensed gas technician.

WARNING: Installation of this burner must conform with local codes requirements or, in the absence of local codes, to the Standard: National Fuel Gas code ANSI Z223.1-1984, and CAN/CGA B149.1 & 2 AND UL 795. If an external electrical source is utilized, the conversion burner, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the national Electrical Code, ANSI/NFPA No. 70-1990 and CSA Electrical Code C22.2 No.0 M1982 & C22.2 No 3. 1988.

Authorities having jurisdiction should be consulted before installations are made. The owner is required to retain this manual for future reference.

This burner must be fired ONLY with the fuel listed on the burner nameplate.

TECHNICAL SPECIFICATIONS **FIRING RATES: HIGH 360,000 TO 900,000 Btu/hr LOW 250,000 TO 490,000 BTU/hr**				
	NATURAL		**PROPANE**	
	HIGH FIRE	**LOW FIRE**	**HIGH FIRE**	**LOW FIRE**
MANIFOLD PRESSURES	MIN. 2.3" w.c.	MIN. .55" w.c.	MIN. 2.6" w.c.	MIN. 1.7" w.c.
	MAX. 3.3" w.c.	MAX. 1.1" w.c.	MAX. 6.0" w.c.	MAX. 3.4" w.c.
GAS SUPPLY PRESSURES				
	MIN. 7"	MIN. 7"	MIN. 8"	MIN. 8"
	MAX. 14"	MAX. 14"	MAX. 13"	MAX. 13"
POWER	120 VOLTS 60 Hz. single phase			
MOTOR	233T 4.3 AMPS 3250 RPM 325 RAD/sec			
TRANSFORMER	Primary: 120Vac 1.4A. Secondary: 6000Vac 20mA			
SAFETY CONTROL	120 VOLT 60 Hz.			

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

Do not store or use gasoline or any other flammable vapours or liquid in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS:

1) Do not try to light any appliance.
2) Do not touch electrical switches; Do not use any phone in your building.
3) Immediately call your gas supplier from a neighbour's phone. Follow the gas supplier's instructions.
4) If you cannot reach your gas supplier, call the fire department.

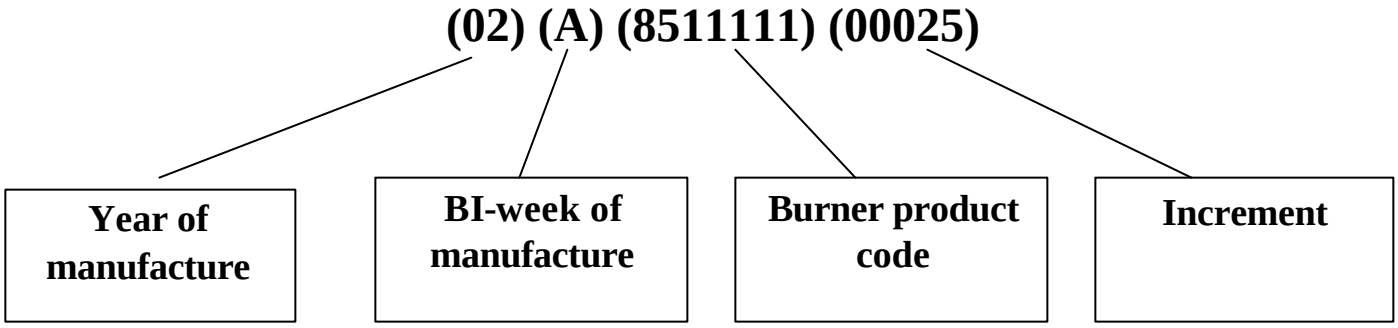
TABLE OF CONTENTS

The following pages contain information, descriptions and diagrams for the proper installation and wiring of the burner. Please read carefully before attempting final installation.

This manual is to remain with the final installation designation. It is the installer's responsibility to ensure that the burner installation and operation instructions mentioned in this manual are followed and operated within local code authority limits.

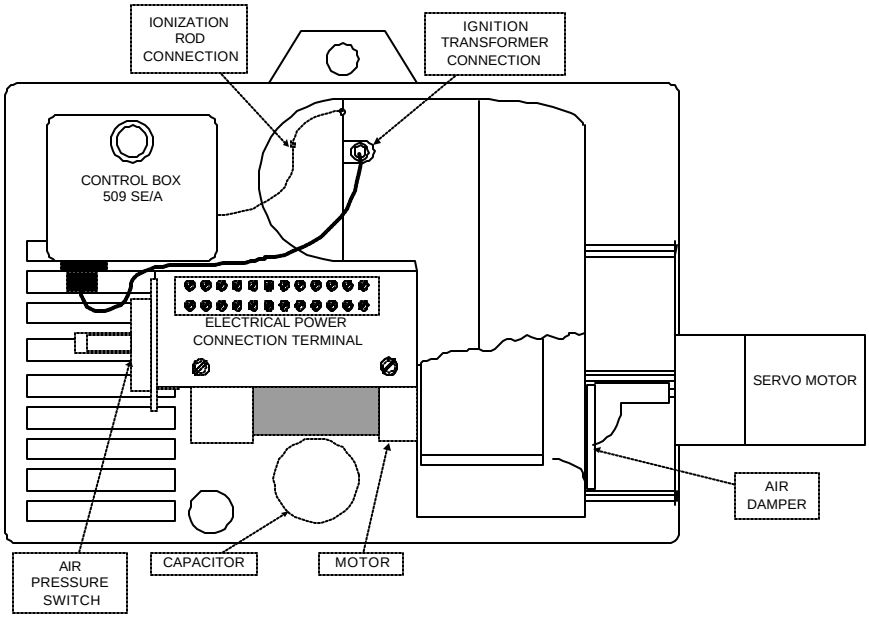
SERIAL NUMBER IDENTIFICATION

The Riello 15 character serial number, example, 02 **A 8511111 00025**, is identified as follows:
02 = last two digits of the year of manufacture; **A** = BI-week of manufacture; **8511111** = burner product code; **00025** = increment of 1 for each burner produced – specific to product code – reset to zero each January 1st.

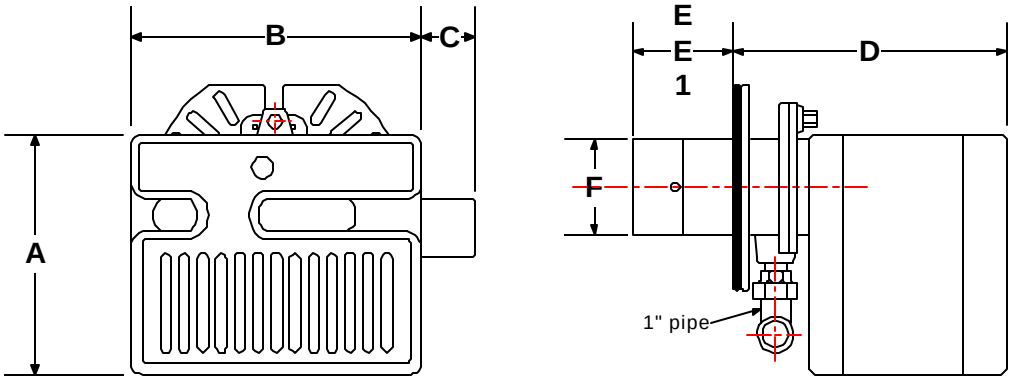


PRINCIPAL BURNER COMPONENTS

Accessory Package:
- 1-Insulating gasket
- 1-Data tag
- 1 Instruction booklet
- 2-Bilingual warning labels (CAN1-B149)



BURNER DIMENSIONS

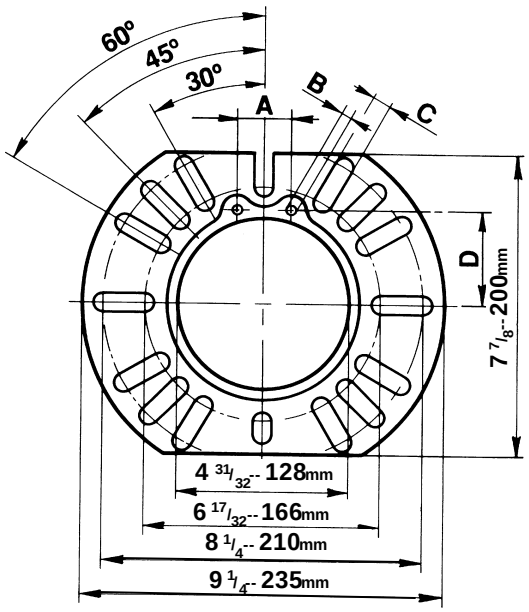


Model 900	A	B	C	D	E	E1	F
Inches	11 3/4	13 3/4	3 3/4	15 5/16	4 1/8	10 5/8	4 15/16
mm	298	350	95	389	105	255	125

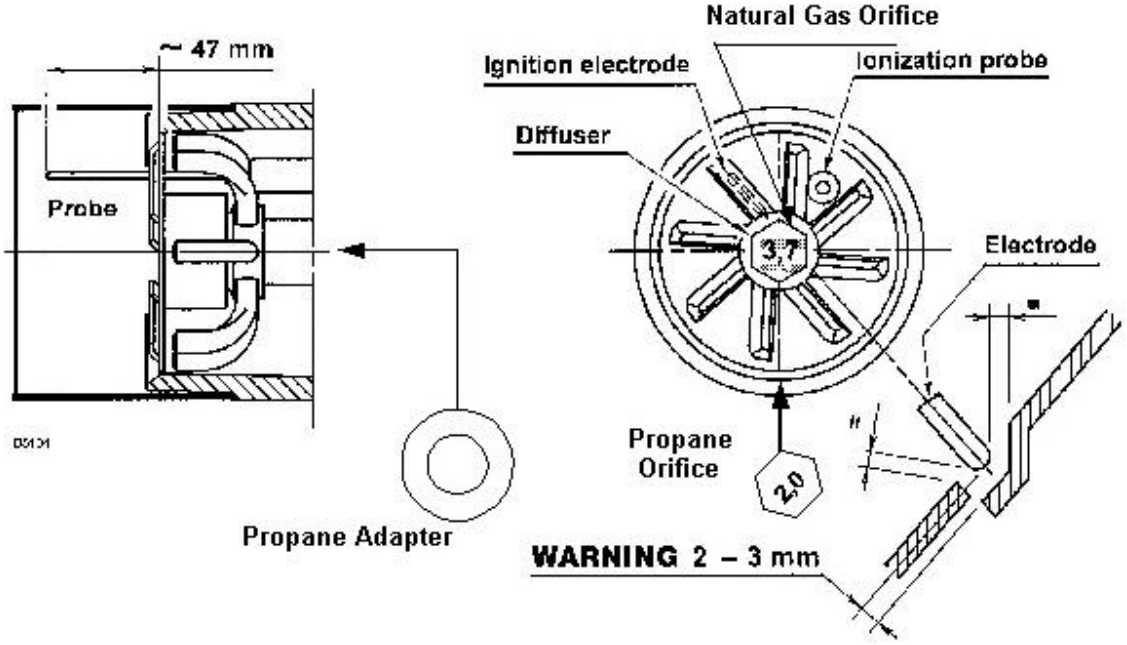
NOTE: Actual available insertion length must be measured from tip of end cone to face of mounting gasket.

UNIVERSAL MOUNTING FLANGE DIMENSIONS

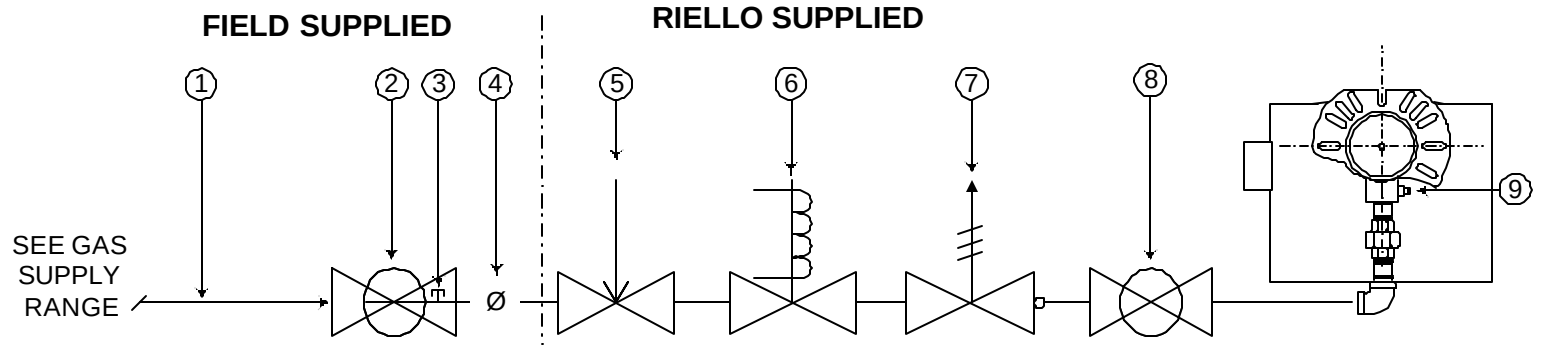
	A	B	C	D
inches	1 1/2	1/4	7/16	2 7/8
mm	38	6	11	73



ELECTRODE AND FLAME PROBE ADJUSTMENTS



TYPICAL GAS TRAIN LAYOUT



NOTE: ITEMS 5,6 & 7 COMBINATION GAS VALVE(S) ASSEMBLIES MAY BE UTILIZED WHERE APPROVED.

GAS TRAIN LEGEND

1) GAS SUPPLY & FLOW DIRECTION OF GAS

2) GAS SUPPLY MAIN SHUTOFF MANUAL VALVE (FIELD SUPPLIED)

3) GAS SUPPLY PRESSURE TEST POINT (FIELD SUPPLIED)

4) GAS TRAIN PIPE DIAMETER SIZE(S):
BURNER G750 3/4"
BURNER G900 1" NPT (REDUCED AT COMBUSTION HEAD TO 3/4")

GAS SUPPLY PRESSURE RANGES:

NATURAL GAS PRESSURE:
MIN. = 7.0" WC
MAX. 14.0" WC

L.P. PROPANE GAS PRESSURE:
MIN. = 8.0" WC
MAX. 13.0" WC

5) GAS APPLIANCE PRESSURE REGULATOR

6) SAFETY SHUTOFF GAS VALVE (VS) 120V OPERATED

7) MAIN GAS VALVE 120V OPERATED
BURNER G750 = SINGLE STAGE V1 ONLY
BURNER G900 = TWO STAGE V1 & V2

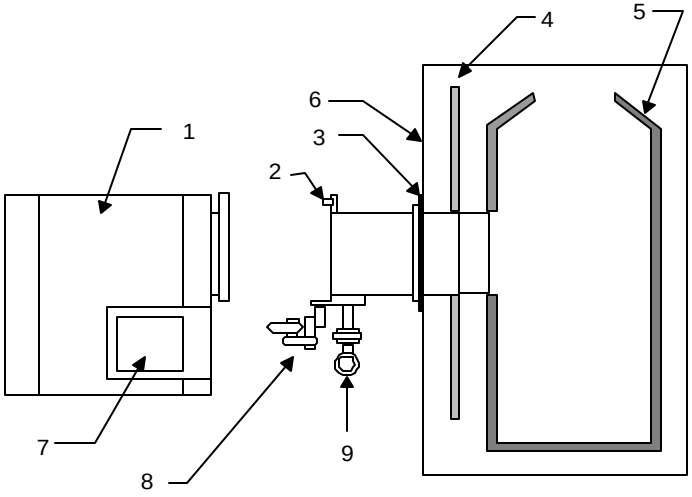
8) FIRING VALVE MANUAL SHUTOFF

9) GAS BURNER MANIFOLD TEST POINT

This gas train scope of supply meets the minimum controls requirements according to CGA and AGA regulations. Any additional requirements needed to meet local codes are the responsibility of others.

INSTALLING THE BURNER

1. Burner Chassis
2. Lock-nut
3. Burner Mounting Gasket
4. Insulation on Mounting Plate
5. Combustion Chamber
6. Forced Air Heat Exchanger
7. Servomotor
8. Burner Hinge Assembly
9. Gas Train Supply



Separate the combustion head of the burner from the chassis (1) by removing the lock-nut (2). Install the combustion head into the appliance.

NOTE: Unless other else noted, it is recommended that the combustion head do not protrude into the combustion chamber.

Use this checklist prior to installation:

1) Check the input/output requirements of the appliance.
2) Check the physical size of the combustion chamber against the thermal requirements of the application and relate this to the sizing charts.
3) Check that there is sufficient air for proper combustion and adequate ventilation. Local codes should be followed.
4) Check that you have adequate space for servicing the equipment as per local code. This is required for servicing and periodic maintenance of burner/appliance.
5) Prior to burner installation, the chimney must be inspected and must meet local code requirements.
6) Barometric draft regulators, when used, should be of the double acting type, and must be installed in accordance with the draft regulator Manufacturer's instructions. Single acting barometric dampers are not permitted.
7) The operating instructions tag supplied with the unit must be left in place.

TO START THE BURNER: Switch on power, open manual gas cocks, set the thermostat above ambient temperature. If the burner does not start, press the illuminated re-set button on the burner safety control.

TO SHUT DOWN BURNER: Switch off power supply. If burner is switched off for extended periods, close manual gas cocks.

IMPORTANT:

The installer must identify the main electrical power switch and manual gas shut off valve, for emergency conditions. The red cover on the burner must be in place and secured before the burner is placed in operation.

GENERAL INFORMATION

Your Riello gas burner comes to you completely assembled and wired, ready for installation. The short head version has a fixed flange, which bolts directly to the front of the appliance. The long head version is equipped with a universal flange, which, when bolted to the appliance, allows the burner to be adjusted inwards or outwards for exact positioning in the combustion zone.

STEP-BY-STEP PROCEDURE

1) Remove the burner from the carton, taking care not to lose any of the supplied accessories, and check for signs of physical damage.
2) Bolt the burner to appliance. Be sure to install the supplied mounting gasket. Ensure that the burner is level and that the combustion head is centered in the port. A spirit level placed across the cover will give you a good level. Refer to page 7 for position of combustion head relative to the chamber.
3) Check that the gas train is tight and make your connections to the incoming gas supply.
    a) A sediment trap must be provided at the gas connection inlet to the burner gas train.
    b) If not already installed, a manual shutoff valve must be supplied. This valve must be upstream of the burner/supply connection.
    c) A 1/8 NPT plugged tapping must be installed immediately upstream of the burner/supply connections and must be accessible for a test gauge.
    d) If required by local codes, provide gas vent lines at the gas regulators and at valve (Riello gas trains are equipped with vent limiting orifices).

NOTE: Details of sediment trap, manual gas valve and test point can be found in installation of sediment trap and burner supply section.

4) Remove the red protective cover by removing the three screws. Make your adjustment of stop gate, (refer to firing rate specifications and settings charts for details). Replace and secure the air cover plate.
5) Electrical hookup: 120Volt 60 Hz incoming power lines should be connected to Terminals 1 and 2 on burner terminal block. A manual disconnect switch must be installed in the incoming power lines. Incoming power lines must be rigid conduit or flexible approved cable.

CAUTION: The hot wire must be connected to the black lead of the relay: neutral to the white lead. Do not reverse the polarity. The burner will not operate correctly with the Phase/Neutral reversed, and the control box may be damaged. Proper earth ground should be connected to the terminal block mounting plate, which should be a solid green wire.

6) Start and check the burner functions as follows:
    a) Make a final check on the gas and electrical connections.
    b) Check that all adjustments have been completed
    c) Loosen the screw in the manifold gas test point and install a manometer.
    d) Switch on power.
    e) Set the thermostat at its highest setting and press the burner reset button. Allow the burner to run through a complete cycle to check control functions.
    f) Turn on the manual gas valve and reset the safety. At this stage, the burner will open the air shutter and once it's open, the burner will prepurge for aprox.30 seconds. Allow about 66 seconds for the control module to check all the operating circuits.

It may be necessary to repeat the starting cycle several times to free the gas train of entrapped air. If the burner goes to lockout, reset the safety button.

7) With the burner running and flame established, check the manifold gas pressure. Adjust manifold pressure to the correct value for the selected firing rate specified in the FIRING RATE SPECIFICATIONS AND SETTINGS chart. After completing the setting, remove the manometer and tighten the screws.

NOTE: Do not assume the burner is operating at optimum performance.

A COMBUSTION TEST MUST BE PERFORMED

8) Make your final combustion efficiency test and fine tune the fan air damper as necessary. Replace the red protective cover and secure with three screws. Always do a final set up by checking the gas flow rate by clocking the meter. Do a complete combustion check with proper test equipment to obtain the best and safe CO_2, O_2, and CO results. This test must be done by a qualified technician.
Final combustion tests must be performed with burner cover in place.

NOTE: Do not assume the burner is operating at optimum performance.

9) Affix the supplied warning labels to the appliance in an accessible non-removable location.

The maximum recommended CO_2 level for Natural Gas is 10%.

The maximum recommended CO_2 level for Propane Gas is 12%.

Fill out the installation data on the label supplied and explain the burner's essential functions to the owner. Do not forget to give the dealer or service company's name and address.

NOTE: This label is supplied in the package with the burner and should be filled out and affixed to the appliance when the conversion burner is installed.

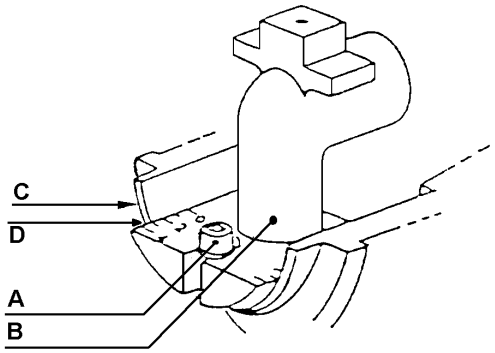
ADJUSTMENT DATA TAG ANSI Z21-17b-1994		
INPUT C.F.H.		
MANIFOLD PRES.		
AIR DAMPER		
AIR/GAS RATIO No.		
FLUE GAS TEMP.		
O2 LEVEL %		
CO2 LEVEL %		
CO LEVEL P.P.M		
DATE :		
COMPLETED BY		
INSTALATION CONTRACTOR		

COMBUSTION HEAD SETTING

COMBUSTION HEAD ADJUSTMENTS

To set combustion head, loosen the Allen screw (A) and move the elbow (B) so that the rear edge of the air tube (C) coincides with the set point number (D). Retighten the Allen screw (A).

NOTE: For this setting, please refer to Firing Rate Specifications and Setting on page 11



PRELIMINARY BURNER ADJUSTMENTS

STANDBY WAITING FOR CALL FOR HEAT

DO NOT ADJUST THIS SETTING FOR ANY REASON!!!
The **ST0** lever is set at the Factory and corresponds to the air gate shut position of zero on the.

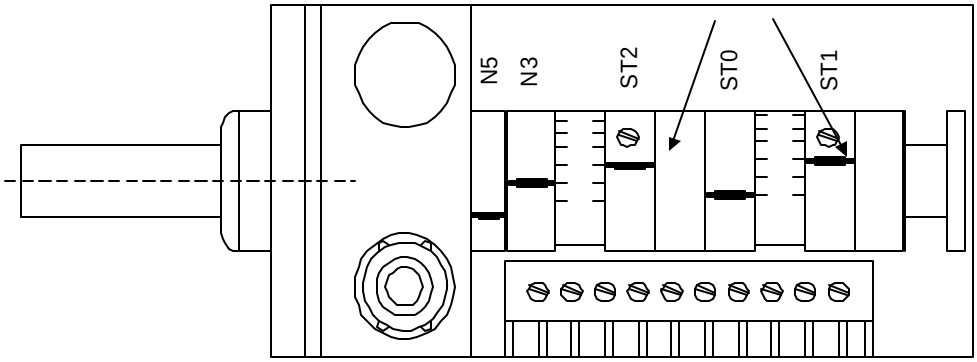
1ST STAGE (LOW FIRE) AIR DAMPER SETTING:

The **ST1** lever controls the first stage position of the Air Damper and must be set at a higher degree setting than the **ST0** Lever.
Lever **N5** controls the opening of the First Stage Gas Valve and it MUST be set approximately 5º lower than **ST1**. (Example: if **ST1** is set at 20º then **N5** should be set at approximately 15º).

2nd STAGE (HI FIRE) AIR DAMPER SETTING:

The **ST2** lever controls the 2nd stage (Hi fire) position of the Air Damper and must be set at a higher degree setting than the **ST1** Lever.

ST1 & ST2 levers fine adjustment screws for final air damper position



Lever **N3** controls the opening of the 2nd Stage (Hi fire) Gas Valve and it MUST be set approximately 5º lower than **ST2**. (Example: if **ST2** is set at 30º then **N3** should beset at approximately 25º).

FIRING RATE SPECIFICATIONS AND SETTINGS

Make sure you are using the correct table for either Natural gas or Propane gas.

RIELLO 40 SERIES NATURAL GAS BURNER SPECIFICATIONS 1" GAS TRAIN WITH 6" MINIMUM LINE SUPPLY PRESSURE										
BTU Input High Fire (x1000)	BTU Input Low Fire (x1000)	Air Gate Setting	Head Setting	Servomotor set in degrees				Manifold Pressure (inches wc)		Min Line Pressure (inches wc)
				A	B	C	D			
				ST1	N5	ST2	N3	H	L	
900		4.7	4.0			38	33	3.3		7
	490	2.4	4.0	20	15				1	7
800		4.2	3.0			34	29	3		7
	410	2.1	3.0	19	14				0.55	7
700		3.7	2.0			30	25	2.6		7
	370	2.0	2.0	18	13				0.78	7
600		3.1	1.0			25	20	2.7		7
	320	1.8	1.0	15	10				0.86	7
500		2.8	0.5			22	17	2.8		7
	300	1.8	0.5	15	10				1.1	7
360		2.2	0.0			19	14	2.3		7
	250	1.6	0.0	13	8				1	7

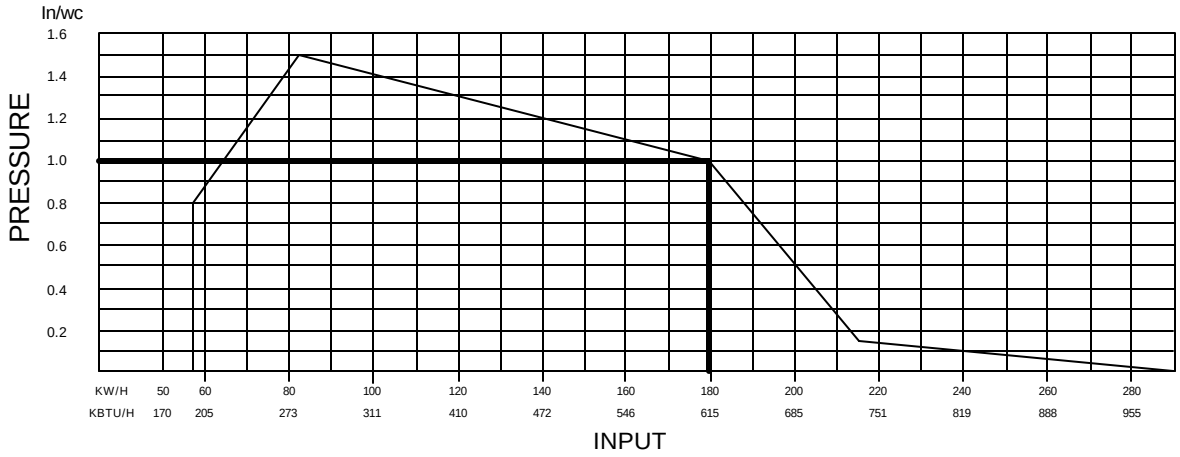
RIELLO 40 SERIES PROPANE GAS BURNER SPECIFICATIONS 1" GAS TRAIN WITH 11" MINIMUM LINE SUPPLY PRESSURE										
BTU Input High Fire (x1000)	BTU Input Low Fire (x1000)	Air Gate Setting	Head Setting	Servomotor set in degrees				Manifold Pressure (inches wc)		Min Line Pressure (inches wc)
				A	B	C	D			
				ST1	N5	ST2	N3	H	L	
900		4.7	5.0			38	33	6		8
	490	3.2	5.0	26	21				3.4	8
800		4.0	4.0			34	29	4.9		8
	410	2.9	4.0	24	19				2.8	8
700		3.7	3.0			30	25	4.1		8
	370	2.7	3.0	22	17				2.3	8
600		3.1	2.0			26	20	3.1		8
	320	2.4	2.0	20	15				1.8	8
500		2.9	1.0			25	18	2.9		8
	300	2.1	1.0	18	13				1.7	8
360		2.3	0.0			20	15	2.6		8
	250	2.1	0.0	18	13				2	8

NOTE: The settings on the previous page are a starting point ONLY. A qualified gas technician using proper test equipment must do the final adjustments. Proper CO_2, O_2 and CO readings must be taken, recorded and found to be within safe limits as per code requirements.

All the settings above are based on zero (0) over fire-draft. If positive or negative chamber conditions exist some settings changes may be required.

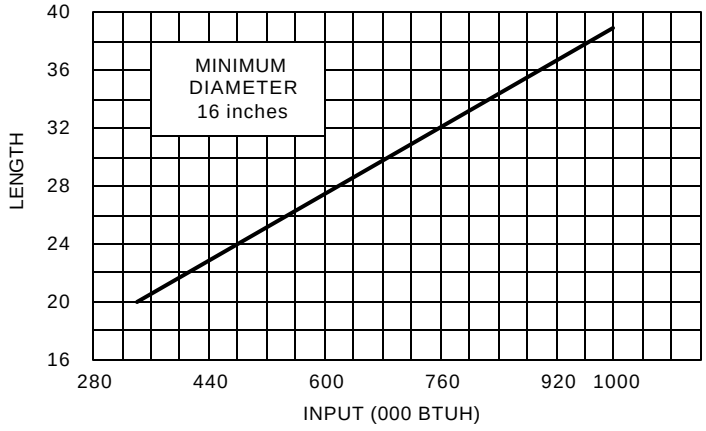
NOTE: For any referral to valve setting, please check the attached manufacturer valve specification.

WORKING RANGE OF BURNER



Example (shown above): With the gas burner installed on a boiler with an over-fire pressure of 1 inch water column in the combustion zone with the burner firing, the maximum output of the burner will be 615,000 BTU. If the input of the boiler is larger than the burner capacity in this condition, then the burner is not compatible to the job application.

RECOMMENDED COMBUSTION CHAMBER SIZING



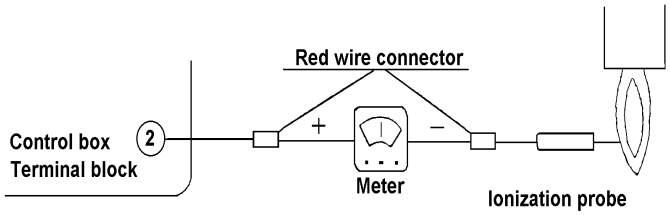
NOTES:

1) Sizes shown above are for cylindrical or wet base boilers, or air cooled heat exchangers.
2) To size the chamber in applications other than wet base boilers, you must calculate area in square inches of the combustion zone required to give you a grate area or floor area to match the BTU inputs according to local authority.
3) Please consult local code requirements for combustion chamber construction and sizing.

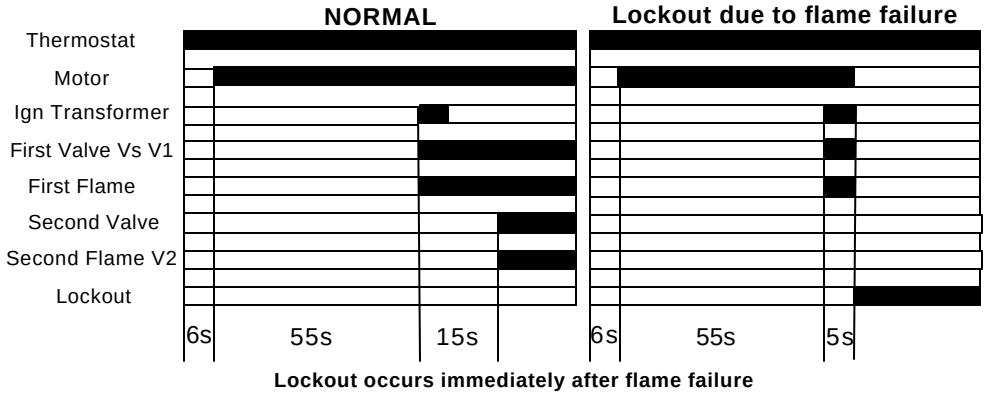
COMBUSTION CHECKS

CO_2: It is advisable not to exceed a measured reading of 10% CO_2 for Natural Gas or 12% CO_2 for Propane Gas taken with the burner cover in place, to avoid the risk of the formation of CO due to minor changes in wind/draft conditions which may occur.
CO: For safety reasons, the value of .02% (200 ppm) sample must not be exceeded.

IONIZATION CURRENT
The minimum amount of current necessary for the control module to operate properly is 5 micro-amps. To measure the ionization current, unplug the connector fitted to the red connectors as shown and insert an ammeter (µA DC meter) in series with control box terminal 2 and the ionization probe which senses the flame. Refer to the drawing.



BURNER START-UP CYCLES



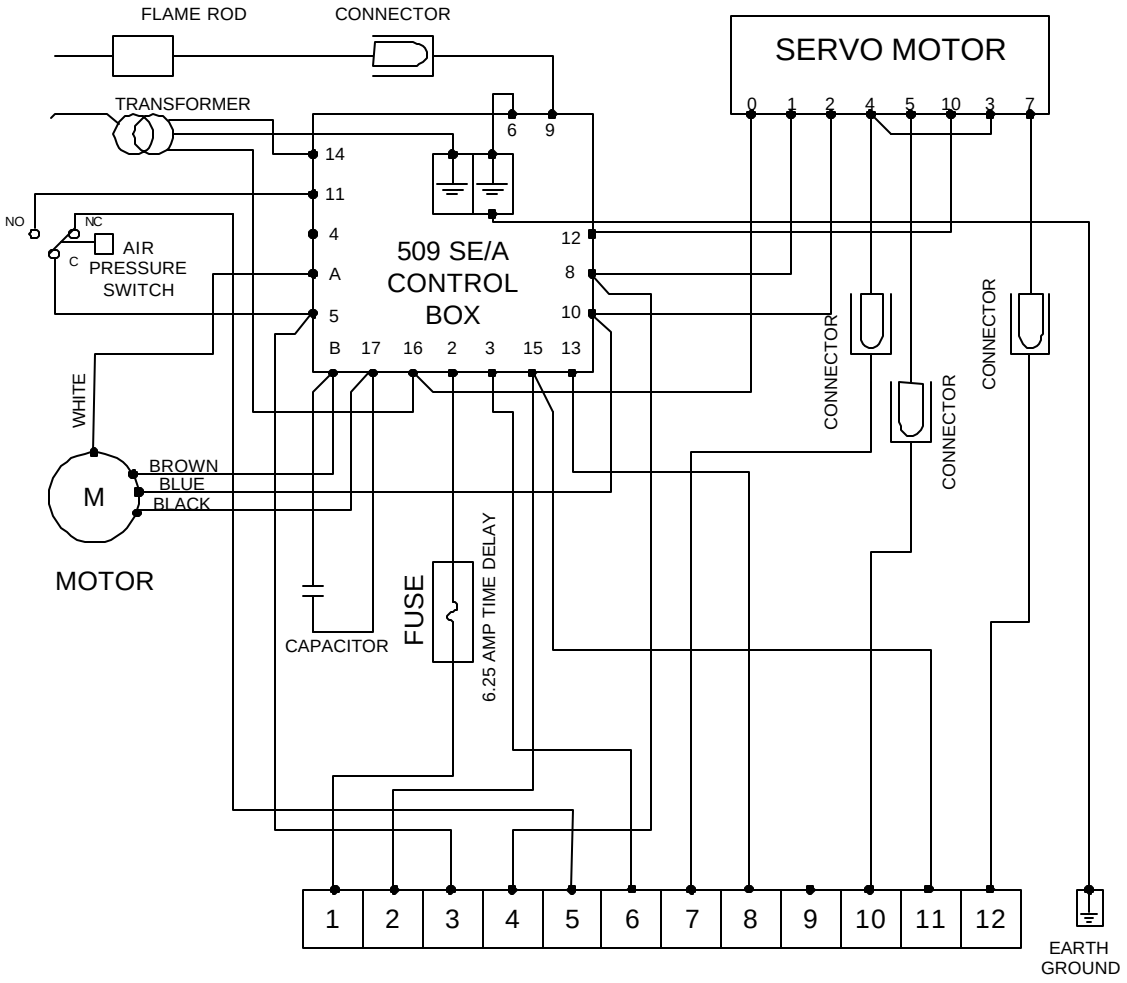
MAXIMUM LOADS

Motor	terminal 10	3A
Ignition transformer	terminal 14	2A
Valves	terminal 12 – 13	2A
Lockout Lamp	terminal 4	1A

TECHNICAL DATA

Voltage	120V +10% -15%
Frequency	60 Hz
Absorption	10 VA
Prepurge time	55 seconds
Ignition Time	4.5 seconds
Trial for ignition time	5 seconds
Flame response time	< 1 second
Total start time	90 seconds
Flame detector sensitivity	3 micro-amps
Rated ionization current	5 micro-amps
Electrical protection	IP 40
Ambient temperature	-20? to +60?C
Maximum Fuse (external)	15 A (250V)

INTERNAL FACTORY WIRING DIAGRAM



REMOTE SENSING OF SAFETY LOCKOUT

Terminal 4 on the 509SE/A Control Box sub-base can be used to activate a circuit allowing remote sensing of burner lockout.

THE MAXIMUM AMPERAGE LOAD ON THIS CIRCUIT IS 1 AMP.

OPERATING MODES

NOTE: The burner control module 509SE/A must be constantly (uninterrupted) supplied with a 120V/60Hz power supply on terminals 1 and 2.

The burner can be fired in two different operating modes. These two modes are as follows:

1) SINGLE STAGE BURNER WITH LOW FIRE START

In this mode, the second stage fire is initiated automatically by the 509 SE/A primary control 15 seconds after the first stage fire is established. The burner leaves the factory wired for this mode, with a jumper connected between terminals 7 and 8 on the terminal block.

2) 2 – STAGE = LOW, HIGH, LOW, THEN OFF.

In this mode, the second stage fire is initiated by a separate operating control on demand only. To operate in this mode you must remove the factory-installed jumper between terminals 7 and 8 on the terminal block, and wire the required operating controls between these same two terminals.

BURNER TERMINAL STRIP WIRING LEGEND

L1 (L)	LINE (HOT)
L2 (N)	NEUTRAL
GND	EARTH GROUND
T1	1ST STAGE CONTROLLER
T2	2ND STAGE CONTROLLER
P.c.	PROOF OF GAS VALVE
	CLOSURE (OPTIONAL)
J	FACTORY INSTALLER JUPER
	(SINGLE STAGE OPERATION)
VS	SAFETY GAS VALVE (120V OPERATED)
V1	1ST STAGE GAS VALVE (120V OPERATED)
V2	2ND STAGE GAS VALVE (120V OPERATED)
———	FACTORY WIRING
– – –	FIELD WIRING
⊗	REMOTE SENSINGOF BURNER LOCKOUT

CONTROL CIRCUITS

Burner firing stage may be controlled by either a 120V or 24V control system. The required controls must be connected to the burner as described on the following pages.

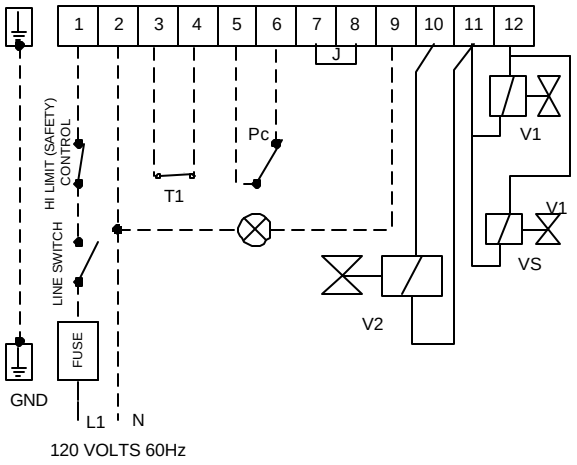
120V CONTROL SYSTEM

First stage firing is controlled by a 120V operating control wired between terminals 3 and 4 on the terminal block. To control second stage fire on demand only, a second 120V control must be wired between terminals 7 and 8 after removing the factory-installed jumper. See diagram below.

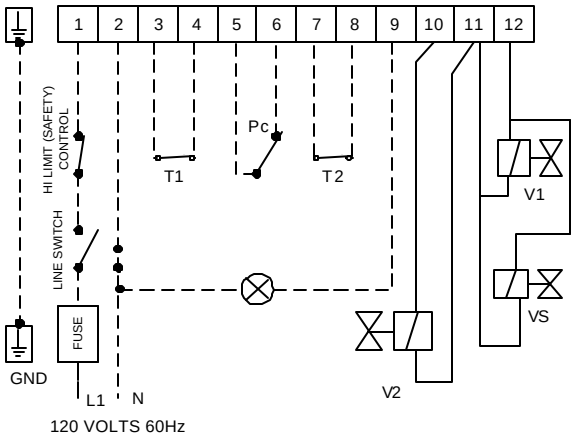
24V CONTROL SYSTEM

First Stage firing is controlled by a 24V operating control wired between terminals 3 and 4 on the terminal block. To control second stage fire on demand only, a second 24V control must be wired between terminals 7 and 8 after removing the factory-installed jumper. See diagram below.

SINGLE STAGE BURNER ~ LOW FIRE START



2 STAGE BURNER FIRING



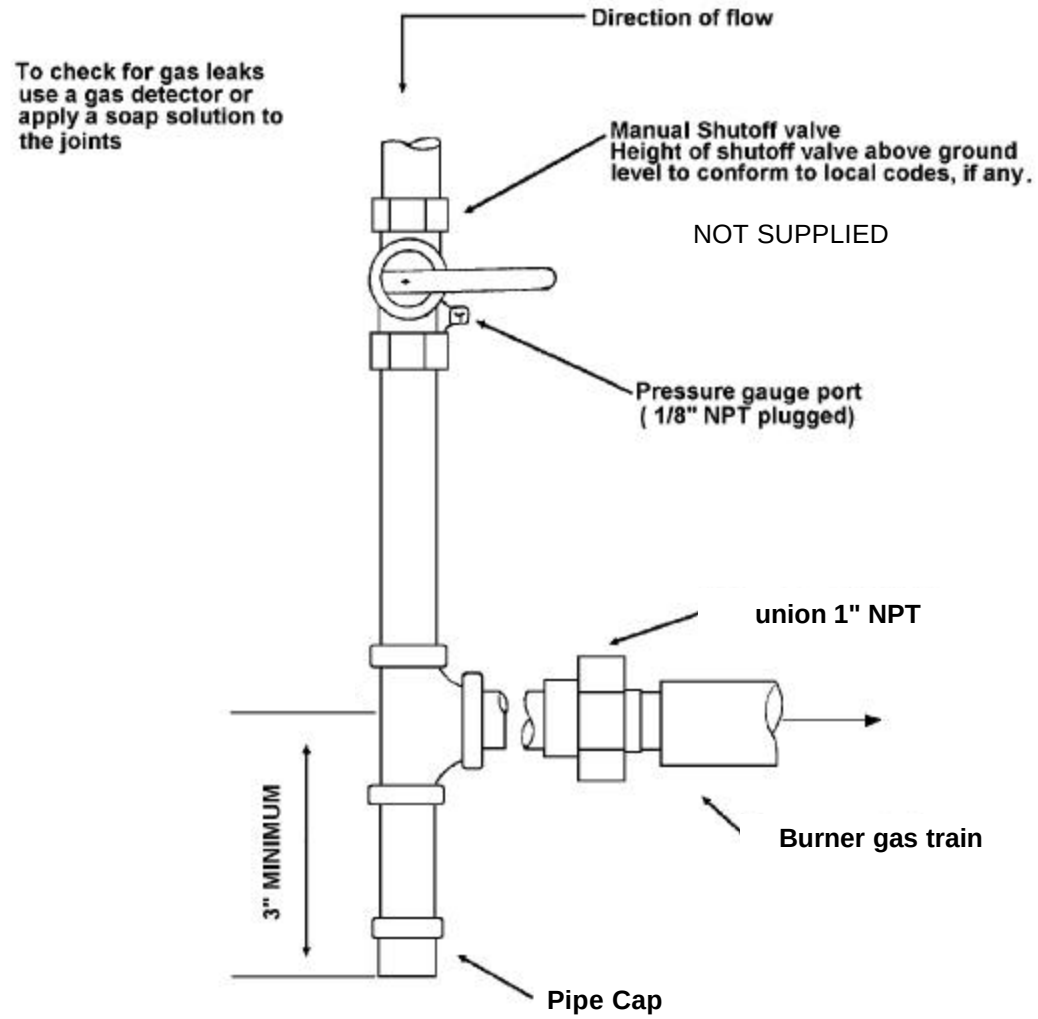
Note: If an external electrical source is utilized, the conversion burner, when installed, must be electrically grounded with a solid green wire to Earth Ground, in accordance with local codes or, in the absence of local codes, with the National Electrical Code ANSI/NFPA 70-1990 and the CSA Electrical Code.

INSTALLATION OF SEDIMENT TRAP AND BURNER SUPPLY

Gas piping supply should be installed according to local gas supplier authorities.

PRESSURE TEST-OVER ½ PSIG.
The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of the system at a test pressure in excess of ½ PSIG.

PRESSURE TEST-1/2 PSIG OR LESS
The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any testing of the gas supply piping system at test pressures equal to or less than ½ PSIG.



OPERATING FAULTS

The integrated control system is self-checking. The cycle from start up to stability requires 66 seconds.

The burner will go into lockout under the following circumstances:

a) Flame failure
b) The ionization probe is grounded
c) Opening of the air pressure switch
d) The burner shuts down if gas pressure switch (if used) opens because of insufficient gas pressure in the supply lines.

During operation, if overheating occurs, shut off the manual gas valve to the appliance. Do NOT shut off the electric switch to the circulating pump or blower fan.

SHUT DOWN PROCEDURE

Switch off electrical power to the unit. Close the manual supply gas valve.

START UP PROCEDURE

Turn on electrical power to the unit, check operation. Turn on the manual gas supply valve. Check for leaks. Reset the burner safety control.

PROBLEM SOLVING GUIDE

Burner starting difficulties and their causes:

1) The burner goes to lockout after the prepurge period because the flame does not ignite.
   a) Air has not been fully evacuated from the gas lines.
   b) The gas valve is passing too little gas.
   c) The ignition spark is irregular or not present.
   d) The gas valve is defective.
   e) T1 control defective.

2) The burner does not start when there is a call for heat.
   a) The air pressure switch has failed to return to n.c. contacts.
   b) There is no gas, or insufficient pressure in the supply lines to activate the optional gas pressure switch (if used).
   c) There is a blown buss fuse behind the terminal strip.
   d) The burner has gone off on safety.

3) The burner stays in prepurge (does not fire)
   a) The air pressure switch does not change from normally closed to normally open contacts.
   b) Insufficient combustion air supply and /or burner air settings.

4) The burner goes through prepurge, ignition is established, the burner fires for 2 seconds, then goes to lockout.
   a) The flame rectification rod (flame rod) has shorted to ground or is defective.
   b) Polarity is reversed or the earth ground is not properly connected.
   c) The ionization current is weak (lower than 5 micro-amps).
   d) There is interference from the ignition transformer. To correct this problem, reverse the primary leads #14 and #16 in the control box sub-base.
   e) Ignition rod not set to spec.

OWNER INFORMATION AND ROUTINE MAINTENANCE

SAFETY LOCKOUT

This burner is equipped with multiple interlocking safety devices (optional devices may be interlocked with burner control). In the event of a failure, the burner control will go to "lock out" in a safety condition. In such an event, an illuminated red button will show on the front of the red cover. To restart the burner, press the button once only. Should the burner return to the lock out condition, call a qualified service technician or your gas company for assistance.

NOTE: Keep the area around the burner free and clear of all combustible materials, gasoline and other flammable vapors and liquids. Do not allow any obstruction to the free flow of air to the burner.

MAINTENANCE

Like all precision equipment, your burner will require periodic maintenance

1) If your appliance has an observation port, visually check the flame.
2) Check and clean the combustion air intake openings.

For any maintenance or repairs over and above those listed, contact your service technician or gas company. THERE ARE NO OWNER SERVICEABLE PARTS INSIDE THE RED COVER.

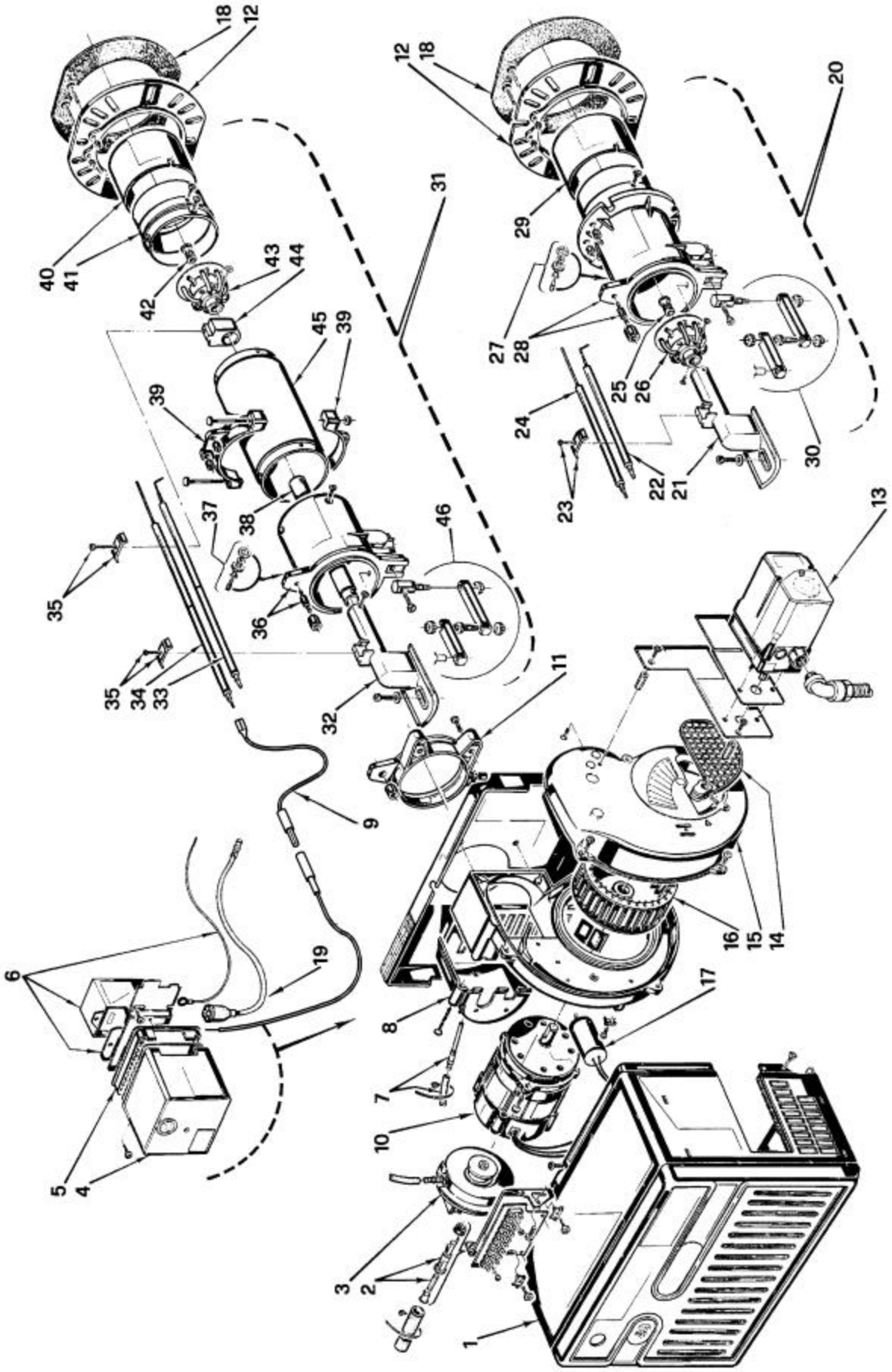
1) Check burner distributor head and mixing plates. Clean if necessary.
2) Check ignition electrode. Clean or replace as necessary.
3) Check the flame sensor rod (ionization rod) for dirt or carbon buildup.
4) Check manifold gas pressure
5) Check all mixing adjustments.
6) Generally clean all exposed parts and components.
7) Repeat combustion tests.

RECOMMENDATION: Once a year you should have the burner checked as indicated above, by your local authorized Service Technician.
Your Riello 40 gas burner is only part of your heating system. Once every year you should have your complete system checked and cleaned by a qualified service technician.

GAS 900 SPARE PART LIST

SPARE PARTS		GAS BURNER SYSTEM RIELLO 40 G900			REVISED: 09/01
No.	SPARE PARTS CODE	DESCRIPTION	No.	SPARE PARTS CODE	DESCRIPTION
1a	3007521	Burner cover	20	3950471	**Short combustion head (280T1)**
1b	3007522	Chassis Plate	21	3006697	Drawer assembly elbow
2	C7020002	Fuse 6.25A	22	3006706	Electrode assembly
3	C7020008	Air Switch	23	3003409	Electrode and ionization clamp
4	3001163	Primary control Box 509SE/A	24	3006709	Ionization assembly
5	3002256	Control Box Sub Base	25	3006703	Natural gas orifice
6	3007948	Transformer - Ignition	26	3006700	Distributor head and mixing plate
7	3007288	Air Switch Tube & Connector	27	3005447	Gas test point
8	3007294	Air Plate Cover	28	3007525	Manifold
9	3007311	Ionization lead	29	3006694	End cone
10	3005845	Burner Motor	30	3000870	Hinge assembly
11	3006689	Chassis Mounting Collar	31	3950472	**Long combustion head (280T2)**
12	3005851	Universal mounting flange	32	3006697	Drawer assembly elbow
13	3007523	Air Damper Motor	33	3006962	Electrode assembly
14	3007421	Air Damper Plate	34	3006961	Ionization assembly
15	3007524	Air Intake Housing	35	3003409	Electrode & ionization clamp
16	3005799	Fan	36	3007526	Manifold
17	3007307	Capacitor 20?F	37	3005447	Gas test point
18	3005852	Mounting gasket	38	3007313	Gas Tube
19	3002461	Transformer – High Voltage Lead	39	3005849	Semi-flange 2 required
			40	3006694	End cone
			41	3007283	Combustion Head Connector
			42	3006703	Natural gas orifice
			43	3006700	Distributor head and mixing plate
			44	3007314	Electrode support
			45	3007286	Air tube - long
			46	3000870	Hinge assembly

GAS 900 EXPLODED PARTS VIEW



35 Pond Park Rd.
Hingham, MA 02043
Phone: 781-749-8292
Toll Free: 800-992-7637
Fax: 781-740-2069

RIELLO BURNERS

2165 Meadowpine Blvd.
Mississauga,On L5H 3R2
Phone: 905-542-0303
Toll Free: 800-387-3898
Fax: 905-542-1525

BURNER START - UP FORM *

Burner S/N. or Model: _____ Appliance: _____

Installer name: _____

Company: _____ Installation date: _____

Address: _____

Phone: _____ Fax: _____

Owner Name: _____

Address: _____

Phone: _____ E-mail: _____

Burner Start-up Info (OIL)

Nozzle Info: _____

Pump Pressure: _____

Air Setting: _____ Turbulator setting: _____

Draft Overfire: _____ Draft breech: _____

CO_2: _____ CO: _____ O_2: _____

Smoke density: _____ (Bacharach) _____

Single Line: ☐ Two Lines: ☐

Burner Start-up Info (GAS)

Gas Supply Pressure: _____

Pump pressure: _____

Air Setting: _____ Head Setting: _____

Draft Overfire: _____ Draft breech: _____

CO_2: _____ CO: _____ O_2: _____

Manifold pressure: _____

Ionization Reading (µAd.c.): _____ Input BTU/Hr: _____

* This form was designed and provided in the installation manual for reference and also for providing technical information which can be faxed or mailed to our technical hot-line coordinator when technical assistance is required. Please complete this form, fax it or mail it at the address/fax above, or send an e-mail with the information listed below to: techservices@riellocanada.com

35 Pond Park Road
Hingham, MA 02043
Phone 781-749-8292
Toll Free 800-992-7637
Fax 781-740-2069

www.riellousa.com

2165 Meadowpine Blvd
Mississauga, ON L5N 6H6
Phone 905-542-0303
Toll Free 800-387-3898
Fax 905-542-1525

www.riellocanada.com

Technical Support Hotline
1-800-4-RIELLO
1-800-474-3556