

Power Flame Incorporated



“J(R)A” BURNER PARTS LIST

THE POWER TO MANAGE ENERGY

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JAPB 1186
REV 610

INSTRUCTIONS FOR ORDERING

1. Always specify model and serial number of burners.
2. Include nameplate information, such as model, job number, serial number, voltage, etc.
3. Certain fabricated components cannot be selected without reference to the specific Bill of Materials for your burner (these components are individually noted in this Book). Bill of Materials are included with all burner shipments. Should additional copies be required, they will be supplied at no charge. Consult factory.
4. For reference purposes, exploded view burner drawings are provided on pages 20, 21, 22 and 23. Call out numbers on these drawings match Item numbers found to the left of each part group title.

MINIMUM BILLING \$50.00 NET PLUS TRANSPORTATION CHARGES

**IDENTICAL ITEMS MAY NOT ALWAYS BE AVAILABLE
BUT ITEMS OF EQUAL OR BETTER QUALITY WILL BE FURNISHED**

ALL PUBLISHED PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

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<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	<u>BLOWER HOUSING AND CABINET ASSEMBLIES</u>	
	J20000	J15A/J30A Cabinet and Blower Housing – prior to 03/01
	J20050	J15/30 Air Housing “01” – after 03/01
	J20003	JR15A/JR30A Blower Housing – prior to 03/01
	J20005	J50A Cabinet and Blower Housing – prior to 03/01
	J20008	JR50A Blower Housing – prior to 03/01
	J20055	J50 Air Housing “01” – after 03/01
	J20058	J15/30 Housing Assembly MCB and LSCB
	J20059	J50 Housing Assembly MCB and LSCB
	J20060	J15/30 Housing Assembly MCB, LSCB and ALCB
	J20061	J15/30 Housing Assembly MCB, LSCB and ALCB
2	<u>HOOD ASSEMBLIES AND HARDWARE</u>	
	J20315	J15A/J30A
	J20316	J15/30 Hood Assembly Main Circuit Board
	J20331	J50A
	J20332	J50 Hood Assembly Main Circuit Board
	910500	Southco Door Latch and Knob J15A, J30A, J50A
3	<u>BLAST TUBES</u>	
	Refer to Burner Bill of Materials	
4	<u>DIFFUSERS (INCLUDES STAINLESS STEEL MOUNTING SCREWS)</u>	
	Refer to Burner Bill of Materials	
5 & 5A	<u>DIFFUSER SCREW</u>	
	X09381	6-32 x 3/4" Stainless Steel
	X09646	Stainless Steel External Tooth Lock Washers (Required)
6	<u>BOILER/BURNER FLANGES</u>	
	J10531	J15A, J30A, JR15A, JR30A
	J20440	J15A, J30A, JR15A, JR30A 2 Piece Adjustable Flange
	J10540	J50A, JR50A
	J20505	J50 2 Piece Adjustable Flange

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
7	<u>BLOWER WHEELS</u>	
	084650	5" x 2-1/2" x 1/2"
	080200	6-1/4" x 3" x 1/2"
	085300	7" x 3" x 5/8"
	081050	7-5/8" x 3" x 5/8"
8	<u>MOTOR PLATES</u>	
	J10731	J15A, JR15A
	J10732	J30A, JR30A, J50A, JR50A
9	<u>BLOWER MOTORS 3450 RPM</u>	
	050000	1/4 HP, 115/1, 48N
	054120	1/3 HP, 115/230/1, 56C
	054160	1/2 HP, 115/208/230/1, ODP 56C
10	<u>AIR PRESSURE SWITCH</u>	
	171010	8024204107 SPDT
	171000	AP4078
11	<u>TRANSFORMERS</u>	
	<u>GAS IGNITION TRANSFORMER</u>	
	320000	120/6000 Volt
	<u>STEPDOWN TRANSFORMER</u>	
	332000	AT72D 1048 40 VA 110/24 with Mounting Plate
	332230	AT150A 1007 50 VA 120/208/24 with Mounting Plate
12	<u>CONTROLS, FLAME SAFEGUARD, CIRCUIT BOARDS</u>	
	<u>FIREYE MEP SERIES</u> (Replaces MII Series)	
	<u>CONTROLS AND SUBBASE LESS PROGRAMMER AND AMPLIFIER</u>	
	361000	MEC120 Standard 120 Volt AC Chassis
	372200	61-3060 Subbase

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
		<u>PROGRAMMERS</u>
361100	MEP100	Standard Relight Module
361110	MEP101	Standard Relight, Flame Signal "Off" Cycle Module
361120	MEP102	Standard Relight, Non Recycle During FF Module
361130	MEP103	Standard Relight, Fixed 10 Second PTFI, MTFI Module
361140	MEP100P	Standard Relight, 10 Second, PTFI, 15 Second, Post Purge
361150	MEP230	Selectable Purge Timing, PTFI, Post Purge Module
361160	MEP230H	Selectable Purge Timing, PTFI, Post Purge with 8 Second Stabilization
361170	MEP560	Same as 230H with 10 Second MTFI, Run Check SW Module
361180	MEP561	Same as 560 without Pilot Stabilization Module
361190	MEP562	Same as 560 Lockout On Loss of Air Flow, Non Recycle Module

AMPLIFIERS

361310	MEUV4	Ultraviolet 4 Second F.F.R.T.
361370	MERT4	Rectification 3 Second F.F.R.T.

FIREYE E SERIES (Replaces D Series)

CONTROL AND SUBBASE LESS PROGRAMMER AND AMPLIFIER

372300	60-1386-2	Subbase
398800	E110	Fireye Microprocessor Flame Monitor
398420	ED510	Display

PROGRAMMERS

398100	EP160	60 Seconds Minimum Prepurge Interrupted Ignition
398130	EP260	60 Seconds Minimum Prepurge Interrupted Ignition
398160	EP380	30 Seconds Minimum Prepurge Interrupted Ignition/Intermittent or Interrupted Pilot
398180	EP390	90 Seconds Minimum Prepurge Interrupted Ignition/Intermittent or Interrupted Pilot

PROGRAMMER/DISPLAY MODULES

398820	EPD160	60 Seconds Prepurge Interrupted Ignition
398830	EPD260	60 Seconds Prepurge Interrupted Ignition
398840	EPD380	30 Seconds Prepurge Interrupted Ignition/Intermittent or Interrupted Pilot
398810	EPD390	90 Seconds Prepurge Interrupted Ignition/Intermittent or Interrupted Pilot

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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AMPLIFIERS

398200	ERT1 Rectification
398210	EUV1 Ultraviolet

HONEYWELL RM7800 SERIES

PRIMARY SAFETY CONTROLS, 4 OR 10 SECOND PFEP, LESS BASE, AMPLIFIER AND TIMER

397700	RM7895C-1012 Interrupted Pilot
397710	RM7895A-1014 Intermittent Pilot
397740	RM7896C-1010 Interrupted Pilot with Post Purge
397750	RM7896A-1012 Intermittent Pilot with Post Purge
397770	RM7897A-1002 Intermittent Pilot with Programmable Post Purge
397790	RM7897C-1000 Interrupted Pilot with Programmable Post Purge

DISPLAY

408001	S7800A-1142
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FLAME SAFEGUARD PROGRAMMER, 4 OR 10 SECOND PFEP, WITH PROOF OF CLOSURE CIRCUIT, LESS BASE, AMPLIFIER AND TIMER, LESS DISPLAY

397500	RM7840E-1016 Same as RM7840L plus Energy Saving Prepurge
397510	RM7840G-1014 Recycle Interlock, Low Fire Interlock
397520	RM7840L-1018 Lockout Interlock, Purge and Low Fire Interlock
397521	RM7840L-1075 Lockout Interlock, Purge and Low Fire Interlock
397530	RM7840M-1017 Recycle Interlock, Low Fire Interlock

FLAME SAFEGUARD PROGRAMMER WITH DISPLAY, LESS BASE, AMPLIFIER AND TIMER

397540	RM7800E-1010 Same as RM7800L plus Energy Saving Prepurge
397550	RM7800G-1018 Recycle Interlock, Low Fire Interlock
397560	RM7800L-1012 Lockout Interlock, Purge and Low Fire Interlock
397561	RM7800L-1087 Lockout Interlock, Purge and Low Fire Interlock
397570	RM7800M-1011 Recycle Interlock, Low Fire Interlock

SUBBASES

400900	Q7800A-1005 Plastic (Internal) Mount
400910	Q7800B-1003 Metal (External) Mount
400920	Q7800B-1011 Metal Base with additional Conduit Knockouts (JR without Cabinet Only)

**ITEM
NO**

**PART
NUMBER DESCRIPTION**

AMPLIFIERS

406900 R7847A-1003 Non Self Check, Rectification, 3 Seconds
406910 R7847C-1005 Self Check, Ultraviolet, 3 Seconds
406920 R7848A-1008 Non Self Check, Infrared, 3 Seconds
406950 R7849A-1023 Non Self Check, Ultraviolet, 3 Seconds
406960 R7849B-1021 Dynamic Check, Ultraviolet, 3 Seconds
406970 R7848B-1006 Dynamic Check, Infrared, 3 Seconds
406990 R7851B Solid State Ultraviolet, 2-3 Seconds

TIMING CARDS

407710 ST7800A-1039 30 Seconds
407720 ST7800A-1062 90 Seconds

HONEYWELL INTERMITTENT PILOT/IGNITION MODULE

396251 S8670J-3002 24 Volt, Pilot Module

12.1

HONEYWELL REPLACEMENT CIRCUIT BOARDS

NOTE: REV. 2 CIRCUIT BOARD STARTED SHIPPING NOVEMBER 2005

SINGLE FUEL ON-OFF SYSTEM

939280 Main Circuit Board
939290 Main Circuit Board, Rev. 2
939300 Light & Switch Circuit Board
939310 Light & Switch Circuit Board, Rev. 2
939340 Interconnecting Cable
939325 Light & Switch Board Label

SINGLE FUEL MODULATION ODP

939291 Main Circuit Board, Rev. 2, Modulation
939281 Main Circuit Board
939302 Light & Switch Circuit Board
939312 Light & Switch Circuit Board, Rev. 2
939340 Interconnecting Cable
939323 Light & Switch Board Label

SINGLE FUEL MODULATION 7895

939282 Main Circuit Board
939292 Main Circuit Board, Rev. 2, Modulation
939302 Light & Switch Circuit Board
939312 Light & Switch Circuit Board, Rev. 2
939340 Interconnecting Cable
939323 Light & Switch Board Label

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
<u>SINGLE FUEL LOW-HIGH-LOW</u>		
	939283	Main Circuit Board
	939293	Main Circuit Board, Rev. 2
	939304	Light & Switch Circuit Board
	939314	Light & Switch Circuit Board, Rev. 2
	939340	Interconnecting Cable
	939321	Light & Switch Board Label
<u>TWO FUEL ON-OFF</u>		
	939284	Main Circuit Board
	939294	Main Circuit Board, Rev. 2
	939301	Light & Switch Circuit Board
	939311	Light & Switch Circuit Board, Rev. 2
	939340	Interconnecting Cable
	939324	Light & Switch Board Label
<u>TWO FUEL MODULATION ODP</u>		
	939285	Main Circuit Board
	939295	Main Circuit Board, Rev. 2
	939303	Light & Switch Circuit Board
	939313	Light & Switch Circuit Board, Rev. 2
	939340	Interconnecting Cable
	939322	Light & Switch Board Label
<u>TWO FUEL MODULATION 7895</u>		
	939286	Main Circuit Board
	939296	Main Circuit Board, Rev. 1
	939303	Light & Switch Circuit Board
	939313	Light & Switch Circuit Board, Rev. 2
	939340	Interconnecting Cable
	939322	Light & Switch Board Label
<u>TWO FUEL LOW-HIGH-LOW</u>		
	939287	Main Circuit Board
	939297	Main Circuit Board, Rev. 2
	939305	Light & Switch Circuit Board
	939315	Light & Switch Circuit Board, Rev. 2
	939340	Interconnecting Cable
	939320	Light & Switch Board Label

ITEM **PART**
NO **NUMBER** **DESCRIPTION**
12.2 **BURNER LOGIX – YB1100 SERIES**

SUBBASE AND CONTROL WITH AMPLIFIER

399332 60-2814-1 Open Subbase
399333 YB110UV Ultraviolet Non-Self Check Control and Amp

PROGRAMMER

399330 YP100 Non-recycle, Modulation, Open Damper Proving, 4 Sec. FFRT

DISPLAYS

399339 BLV512 2 Line by 16 Characters, VFD, with Cable
399331 BLL510 2 Line by 16 Characters, LCD, with Cable

FIREYE CIRCUIT BOARD AND INDIVIDUAL PARTS

CIRCUIT BOARDS

929280 Single Fuel Board Loaded with Bypass and DS Relay
929281 Dual Fuel Board Loaded with Fuel C/O and DS Relay

LIGHT AND SWITCH CKT BOARD

929300 Single Fuel Light and Switch CKT Board
929301 Single Fuel Light and Switch CKT Board, A/M Switch, Mod Pot
929302 Dual Fuel Light and Switch CKT Board, Fuel C/O
929303 Dual Fuel Light and Switch CKT Board, A/M Switch, Mod Pot

CABLE ASSEMBLY (SAME FOR BOTH SINGLE AND DUEL FUEL KITS)

929240 6 Conductor, 24 Inches
929241 8 Conductor, 24 inches

BYPASS RELAYS

929243 Single Fuel Bypass Relay 4PDT
929244 Single Fuel Bypass Relay DPDT

FUEL C/O RELAYS

929245 Dual Fuel C/O DPDT Relay
929246 Dual Fuel C/O 4PDT Relay
929247 Direct Spark SPDT Relay

ITEM NO	PART NUMBER	DESCRIPTION
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LABELS AND ACCESSORIES

929248	Switch Bezel
929249	Potentiometer Knob
929220	Single Fuel Label On-Off
929221	Single Fuel Label Mod
929222	Dual Fuel Label On-Off
929223	Dual Fuel Label Mod

13 SCANNERS - UV

374610	UV-1A3 Fireye
403200	C7027A-1023 Honeywell
403460	C7927-1016 UV

14 SIGNAL LIGHTS

Standard 1"

655100	Amber
655200	Red
657100	Dialco Base (oil tight)
653050	Dialco Bulb
657110	Dialco Red Lens
657120	Dialco Green Lens
657130	Dialco Amber Lens
657140	Dialco Blue Lens
657150	Dialco White Lens

Rectangular

654000	White Oslo 120 VAC
654010	Amber Oslo 120 VAC
654020	Red Oslo 120 VAC
654030	Blue Oslo 120 VAC
654040	Green Oslo 120 VAC

14.1 SIGNAL LIGHTS – LENS CAP – FOR LIGHT CIRCUIT BOARDS

655900	Red
655901	Amber
655902	Green
655903	Blue
655904	White

ITEM NO	PART NUMBER	DESCRIPTION
14.2	<u>LIGHT CIRCUIT BOARDS</u>	
	939250	4 LED Annunciator
	939251	4 LED Annunciator Label – Specify Light Functions
	939260	6 LED Annunciator
	939261	6 LED Annunciator Label – Specify Light Functions
	939270	8 LED Annunciator
	939271	8 LED Annunciator Label – Specify Light Functions
14.3	<u>CIRCUIT BOARD RELAYS, FUSES AND MISC.</u>	
	927700	GGG Glass 6 Amp Fuse
	927701	GDL Glass 15 Amp Fuse
	939410	Relay
	939420	Relay Clip
	939340	Cable
	939343	Switch Frame
	939344	Pot Knob
15	<u>DIRECTOR LIGHTS AND ACCESSORIES</u>	
	655700	5SD1LRN1-36 1/2" Red
	655710	5SD1LAN1-36 1/2" Amber
	655720	5SD1LBZ1-36 1/2" Blue
	655730	5SD1LGX1-36 1/2" Green
	655750	1/2" Timmerman Clip
	938900	60843-1 2 Circuit Commoning Tab
	938910	60842-1 3 Circuit Commoning Tab
	938920	60620-1 Loose Piece Pin
	938930	60619-1 Loose Piece Socket
	938940	1-480324-0 Pin Housing
	938950	1-480323-0 Socket Housing
16	<u>SIDE ORIFICE TEES AND PLUGS</u>	
	873260	1" Tee, not drilled
	873310	1 1/4" Tee, not drilled
	879260	1" Plug, drilled and tapped
	879310	1 1/4" Plug, drilled and tapped
17	<u>SIDE ORIFICE SPRINGS</u>	
	911500	1" J15A, J30A, JR15A, JR30A
	911510	1 1/4" J50A, JR50A

**ITEM
NO** **PART
NUMBER** **DESCRIPTION**

18 **SIDE ORIFICES - PREDRILLED**

<u>Orifice Size</u>	<u>Drill Size</u>	<u>Set Quantity</u>		
		<u>1</u>	<u>3</u>	<u>10</u>
1"	3/16"	X04360	-----	-----
1"	9/32"	M11001	M11031	M11061
1"	19/64"	M11002	M11032	M11062
1"	5/16"	M11003	M11033	M11063
1"	21/64"	M11004	M11034	M11064
1"	23/64"	M11005	M11035	M11065
1"	25/64"	M11006	M11036	M11066
1"	13/32"	M11007	M11037	M11067
1"	27/64"	M11008	M11038	M11068
1"	7/16"	M11009	M11039	M11069
1"	1/2"	M11010	M11040	M11070
1"	9/16"	M11011	M11041	M11071
1"	5/8"	M11012	M11042	M11072
1"	45/64"	M11013	M11043	M11073
1"	25/32"	M11014	M11044	M11074
1"	53/64"	M11015	M11045	M11075
1"	7/8"	M11016	M11046	M11076
1 1/4"	9/16"	X04365	-----	-----
1 1/4"	19/32"	M11102	M11122	M11142
1 1/4"	5/8"	M11103	M11123	M11143
1 1/4"	11/16"	M11104	M11124	M11144
1 1/4"	23/32"	M11105	M11125	M11145
1 1/4"	25/32"	M11106	M11126	M11146
1 1/4"	7/8"	M11107	M11127	M11147
1 1/4"	1"	M11108	M11128	M11148

- M31001 1" Orifice Set, Nat/LP, 17 Pieces, Drilled Assorted Sizes
- M31002 1" Orifice Set, Nat, 13 Pieces, Drilled Assorted Sizes
- M31003 1" Orifice Set, LP, 12 Pieces, Drilled Assorted Sizes
- M31011 1-1/4" Orifice Set, Nat/LP, 8 Pieces, Drilled Assorted Sizes
- M31012 1-1/4" Orifice Set, Nat, 5 Pieces, Drilled Assorted Sizes
- M31013 1-1/4" Orifice Set, LP, 6 Pieces, Drilled Assorted Sizes

19 **PILOT VALVES**

- 202170 U-28-45-21-18-24/60 1/4" Alcon (24 Volt)
- 202190 S311-AF02V2AD7 1/8" GC (120 Volt)
- 202390 S301AFO2N9CF5 3/8" GC (120 Volt)
- 202450 U-28-45-21-18 1/4" Alcon (120 Volt)

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
20	<u>PILOT GAS REGULATORS</u>	
	300000	RV-12T 1/8" Cad 3.0" - 6.0" Spring - (0.5 PSI Maximum Inlet)
	300100	RV-20L 3/8" Cad 2.8" - 5.2" Spring - (0.5 PSI Maximum Inlet)
	302800	325-3 3/8" Cad 2.0" - 6.0" Spring - (10 PSI Maximum Inlet)
	309120	Vent Fitting for RV-20
21	<u>CONTROL SWITCH</u>	
	140400	SPST Control Circuit, Round
	140700	CRTP1A9M9 Rocker Switch – SPST
	140220	DPDT No Center Off Rocker Switch
22	<u>TERMINAL STRIP COMPONENTS</u>	
	610350	KT3 3 Pole 600V Connectron Terminal Block
	610360	KAD End Mounting Adaptor
	610370	MT 12 1/2" Marking Strip
	612010	D6/8 ADO 14-16 GA, Screw Terminal Grey Block
	612040	10 Pole Jumper Bar for D6/8 Block
	612050	10 Pole Jumper Bar for D2.5/5 Block
	612070	M10/10 Screw Terminal, 6-20 GA, 65 A
	612080	End Section for M10/10
	612090	M35/16, 0-16 GA, 150 A
	612100	End Section for M35/16
	612110	MTC6 Thermocouple Block
	612120	End Section for MTC 6 Block
	612130	D6/8 ADO, 14-16 GA Screw Terminal Red
	612140	D4/6 ADO, 16-22 GA ADO Screw Terminal Ivory
23	<u>GROUNDING BAR</u>	
	610400	SLU-35 Grounding Lug

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
24	<u>HONEYWELL DIAPHRAGM GAS VALVES</u>	
	190100	V48A-2169 1" 115V
	190200	V48A-2177 1-1/4" 115V
	190300	V48A-2185 1-1/2" 115V
	199850	V88A-1618 1" 24V
	199860	V88A-1626 1-1/4" 24V
	199870	V88A-1634 1 1/2" 24V
	199600	V8843A-1005 (V8943A-1012) 1" 24V
	199610	V8843A-1021 (V8943A-1020) 1-1/4" 24V
	199620	V8843A-1047 (V8943A-1038) 1-1/2" 24V
	199720	V4843A-1038 (V4943A-1011) 1" 115V
	199730	V4843A-1020 (V4943A-1029) 1-1/4" 115V
	199700	V4843A-1012 (V4943A-1037) 1-1/2" 115V
24.1	<u>ROBERT SHAW</u>	
	285100	7000DERHC Gas Valve, 24V
25	<u>HONEYWELL COMBINATION DIAPHRAGM GAS VALVE AND PRESSURE REGULATORS (0.5 PSI MAXIMUM INLET)</u>	
	199840	V4843N-1012 1" 115V
	199841	V4843N-1020 1-1/4" 115V
	199842	V4843N-1038 1-1/2" 115V
	199910	V8843B-1094 (V8943B-1010) 1" 24V
	199960	V8843B-1011 (V8943B-1028) 1-1/4" 24V
	199970	V8843B-1029 (V8943B-1036) 1-1/2" 24V
26	<u>ASCO-GENERAL CONTROLS SOLENOID GAS VALVES</u>	
		<u>Maximum Inlet Pressure</u>
	280250	K3A461T 1" 24V 0.5 PSI
	280300	K3A562T 1" 115V 1.5 PSI
	280320	K3A771T 1-1/4" 24V 1.5 PSI
	280400	K3A772T 1-1/4" 115V 1.5 PSI
	280500	K3A782T 1-1/2" 115V 1.5 PSI
	280520	K3A781T 1-1/2" 24V 1.5 PSI

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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27 **GAS VALVE OPERATORS**

ASCO-GENERAL CONTROLS

199000	AH2B112A1	15 Seconds
199100	AH2B102A4	30 Seconds
199200	AH4B112A4	Low-High-Low

OPERATORS WITH PROOF OF CLOSURE

199010	AH2B112S4	15 Seconds
199300	AH4B112S4	Low-High-Low

HONEYWELL

190700	V4055A-1098,	13 Seconds
190800	V4055A-1064,	26 Seconds
190400	V4062A-1008,	26 Seconds, Low-High-Low
190430	V4062A-1131,	13 Seconds, Low-High-Low

OPERATORS WITH PROOF OF CLOSURE

190900	V4055D-1019,	13 Seconds
191000	V4055D-1001,	26 Seconds
190500	V4062D-1002,	26 Seconds, Low-High-Low
190600	V4062D-1010,	13 Seconds, Low-High-Low

28 **GAS VALVE BODIES**

ASCO - GENERAL CONTROLS

196000	V710FAS	1"
196100	V710GAS	1-1/4"
196200	V710HAS	1-1/2"

BODIES WITH GUIDE

196600	V710FASV15	1"
196700	V710GASV15	1-1/4"
196800	V710HASV15	1-1/2"

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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13

BODIES WITH PROOF OF CLOSURE

197410	V710FASV22	1"
197420	V710GASV22	1-1/4"
197430	V710HASV22	1-1/2"

HONEYWELL

192300	V5055A-1004	1"
192400	V5055A-1012	1-1/4"
192500	V5055A-1020	1-1/2"

BODIES WITH GUIDE

193000	V5055B-1002	1"
193100	V5055B-1010	1-1/4"
193200	V5055B-1028	1-1/2"

BODIES WITH PROOF OF CLOSURE

193900	V5055C-1034	1"
194000	V5055C-1042	1-1/4"
194100	V5055C-1059	1-1/2"

29 **HONEYWELL COMBINATION DUAL (REDUNDANT) GAS VALVES (0.5 PSI MAXIMUM INLET PRESSURE)**

199930	VR8305M-4009, 24 Volt, Combination Dual Main Gas Valve	
199940	VR4305M4060, 115 Volt, Combination Dual Main Gas Valve	

30 **GAS VALVE ACCESSORIES**

195000	Bleed Valve for V48A	
200600	Conduit Cover for VR8305	

31 **MAIN GAS REGULATORS**

300400	RV-53 1" Cad Plated 3" - 6" Spring (0.5 PSI Maximum Inlet)	
300500	RV-61 1" Pink 3" - 8" Spring (1.0 PSI Maximim Inlet)	
300550	RV-61 1-1/4" Pink 3" - 8" Spring (1.0 PSI Maximum Inlet)	
300600	RV-81 1-1/4" Pink 3" - 8" Spring (1.0 PSI Maximum Inlet)	
300700	RV-81 1-1/2" Pink 3" - 8" Spring (1.0 PSI Maximum Inlet)	

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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14

32 GAS COCKS AND HANDLES

274500	3/4" Milwaukee BB2-100 without Tappings
274550	1" Milwaukee BB2-100 without Tappings
352100	1" Homestead 611 Lube without Tappings
354100	1" Essex 500 with two Tappings
274600	1-1/4" Milwaukee BB2-100 without Tappings
352200	1-1/4" Homestead 611 Lube without Tappings
354200	1-1/4" Consolidated Brass with two Tappings
274650	1-1/2" Milwaukee BB2-100 with two Tappings
352300	1-1/2" Homestead 611 Lube without Tappings
354300	1 1/2" Consolidated Brass with two Tappings
353000	Size F Wrench for Homestead 611 1"
353100	Size G Wrench for Homestead 611 1-1/4" & 1-1/2"

33 BALL VALVES (NO TAPPINGS)

980060	3/8" Combu Model 740
980140	1/2" Combu Model 740
980160	3/4" Combu Model 740
980210	1" Combu Model 740
980270	1-1/4" Combu Model 740

VALVES WITH TWO 1/4" TAPPINGS

980240	1" Combu Model 68
980260	1-1/4" Combu Model 68
980310	1-1/2" Combu Model 68

34 PILOT SHUTOFF COCKS

980030	1/4" Combu Model 740
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35 RELAYS

554800	SPST Motor Load - G7L-1A-T-CB-AC100/120
554810	SPST Motor Load 24V - G7L-1A-T-CB-AC24
553200	DPST (Modulation Only) - PRD7AYO
554900	Base for G7L-1A-T-CB-AC100/120
555500	3PDT Signal
555510	3PDT Base

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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36 BUTTERFLY VALVES

273000	103BV 3/4"	
273100	104BV 1"	
273200	105BV 1-1/4"	
273300	106BV 1-1/2"	
273690	104BVR 1"	
273700	105BVR 1-1/4"	
273710	106BVR 1-1/2"	
273720	108BVR 2"	
M90010	PF-FP 3/4"	Includes M90201 Damper Linkage Arm Assembly
M90015	PF-FP 1"	Includes M90201 Damper Linkage Arm Assembly
M90020	PF-FP 1-1/4"	Includes M90204 Damper Linkage Arm Assembly
M90025	PF-FP 1-1/2"	Includes M90204 Damper Linkage Arm Assembly
M90030	PF-FP 2"	Includes M90204 Damper Linkage Arm Assembly

37 PILOT ASSEMBLIES – Pilot Stops are standard on all Pilot Assemblies sold after 03/03

	<u>Includes</u>		
	<u>Electrode</u>	<u>Flame Rod</u>	
F30031	X04210	X04225	J15A, J30A, JR15A, JR30A Complete Flame Rod Pilot, Natural Gas, with #44 Pilot Orifice
F31002	X04249	X04225	J50A, JR50A, Complete Flame Rod Pilot Assembly with Extended Electrode Assembly for S8680 Systems, Natural Gas, with #48 Pilot Orifice
F31000	X04249	X04225	J15A, J30A, JR15A, JR30A, Complete Flame Rod Pilot Assembly with Extended Electrode Assembly for S8680 Systems, Natural Gas, with #48 Pilot Orifice
F30041	X04210	X04225	J50A, JR50A Complete Flame Rod Pilot, Natural Gas, with #44 Pilot Orifice
F31008	X04210	N/A	J15A, J30A, JR15A, JR30A Complete Scanner Pilot, with #44 Natural and LP Gas Pilot Orifice
F31009	X04210	N/A	J50A, JR50A Complete Scanner Pilot, with #44 Natural Gas and LP Gas

38 PILOT COMPONENTS IGNITION ELECTRODE

X04249	HD Pilot Ignition Electrode with Porcelain for use with 24Volt S860J
X04210	Pilot Ignition Electrode With Porcelain

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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16

FLAME ROD

X04225	Flame Rod With X04600 Porcelain
X04600	Porcelain Only for Flame Rod

PILOT HEAD AND CASE

F20320	J15A, J30A, J50A, JR15A, JR30A, JR50A For Flame Rod
F20330	J15A, J30A, J50A, JR15A, JR30A, JR50A For Scanner
X04036	Pilot Electrode Clamp

PILOT BACK PLATE

B20410	J Flamerod
J20401	J Scanner

39 **IGNITION CABLE**

Y08000	#14-19 GTO 15,000V 3 Foot Cable With One (1)
X09927	#2 Rajah Ring Terminal and
931110	#CT-11 Rajah Cage Terminal

40 **FLAME ROD CABLE**

Y08000	#14-19 GTO 15,000V 3 Foot Cable With Two (2)
937410	#10 Stud Ring

41 **MODULATING MOTOR**

060250	M9174C-1025
B11680	Mod Motor Mounting Bracket
060770	ML9184C-3004
M15122	AM24-MFT-Belimo Mod Motor Bracket, 1" Eclipse
M15121	AM24-MFT-Belimo Mod Motor Bracket, 1-1/4" Eclipse
502731	SQM 71 Mod Motor
060932	AM24-MFT-US-SAZA Aux Sw Belimo 4-20 MA
060938	AM24-MFT95-US with SAZUS Aux Sw Belimo 0-135 OHM
060927	AMX24-MFT95-US with SAZ Aux Sw 0-135 OHM
060929	AMX24-MFT with SAZ Aux Sw – 2-10 VDC (4-20 MA)

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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41.1 DIRECT DRIVE SHAFT

X09102	Butterfly Extension Shaft, 8-13/16
X09104	90L304C-1 10MM Butterfly Extension Shaft
X09396	1/4 - 20 x 3/4 Screw, Serrated
X09366	1/4 - 20 x 1/4 Alan Head Set Screw

42 DAMPER BLADES

M10143	J15, J30 - UL - Standard, Low-High-Low, Low-High-Off, Modulating
M10144	J15, J30 - UL HTD-Standard, Low-High-Low, Low-High-Off, Modulating
M20047	J15, J30 - CGA - On-Off, On-Off-Modulating (Top Blade)
M10147	J15, J30 - CGA - On-Off, On-Off-Modulating (Bottom Blade)
M10157	J50 - UL - Standard, Low-High-Low, Low-High-Off, Modulating
M10161	J50 - UL HTD - Standard, Low-High-Low, Low-High-Off, Modulating
M20046	J50 - CGA - On-Off, On-Off-Modulating (Top Blade)
M10159	J50 - CGA - On-Off, On-Off-Modulating (Bottom Blade)

43 DAMPER AXLES

M80170	5-1/2" X 6" J15A, J30A, JR15A, JR30A, J50A, JR50A
M80171	5-1/2" X 6" Slotted Axle, J15A, J30A, JR15A, JR30A, J50A, JR50A

44 DAMPER WEIGHTS

M10500	J15A, J30A, JR15A, JR30A, J50A, JR50A for Low-High-Low and Low-High-Off
M10501	J15A, J30A, JR15A, JR30A, J50A, JR50A CGA

45 LOCKING ARMS

M80020	5/16" x 1-1/8"
M80010	5/16" x 1-5/8"
M80011	5/16" x 1-5/8" (Tapped)
M80019	CW (CGA)
M80048	Spring (CGA)
M80049	Spring (CGA)

46 SWIVELS

911000	Ball Joints
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<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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18

47 LINKAGE CROSS STRAPS

M80045	5-1/2" Box Damper J15A, J30A, JR15A, JR30A
M80046	5-1/2" Box CGA Cross Linkage J15A, J30A, JR15A, JR30A
M80047	6" Box Damper J50A, JR50A
X02387	Long Brass Pin (2 Required)
X09662	Horseshoe Clip (2 Required)

48 LINKAGE ACCESSORIES

M90001	Standard Steel Crank Arm and Aluminum Hub Assembly for Mod Motor and Gas Valve (3/8" sq)
C83170	Stamped Steel Crank Arm Only
X06002	Aluminum Hub Only (3/8" sq)
M10405	1/2" ID Steel Arm for Mod Motor Ext. Shaft
X09101	Mod Motor Ext. Shaft
M80035	Stamped Steel Crank Arm and Steel Hub Assembly for Modulating Butterfly (3/8" ID)
P82130	Stamped Steel Crank Arm and Steel Hub Assembly for Damper (5/16" ID)
X09374	Screws for Mounting Hub to Crank Arm 10-24 x 1/2" Round Slot Head Machine Screws
Y00470	5/16" Push Rod 36"

48.1 See M90001 Above.

49 AIR SENSING TUBES

J10615	J15A, J30A, JR15A, JR30A, CGA
J10616	J50A, JR50A CGA

50 SIGHT GLASS

X09913	1-1/16" x 1-1/8" Sight Glass
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51 TAPPED NIPPLES

M10550	3/4" x 2"
M10551	1" x 2-1/2"
M10552	1-1/4" x 2-1/2"
M10553	1-1/2" x 2-1/2"

<u>ITEM NO</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
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52 TEST PORT NIPPLES INCLUDING WELDED HALF COUPLING

M20225	1" x 4" x 1/4"
M20227	1" x 4" Pilot x 1/4" and 3/8"
M20226	1-1/4" x 4" Pilot x 1/4" and 3/8"
M20220	1-1/2" x 4" x 1/4"
M20228	1-1/2" x 4" Pilot x 1/4" and 3/8"

53 PANEL BOX AND ACCESSORIES

X09950	6" x 8" Panel Box with Lid
X09868	8"x 8" x 4" Hoffman box
E20170	Isolation Shield Assembly
X07002	SR-7K-2 Strain Relief Bushing
408000	S7899A-1001 Keyboard Display Module

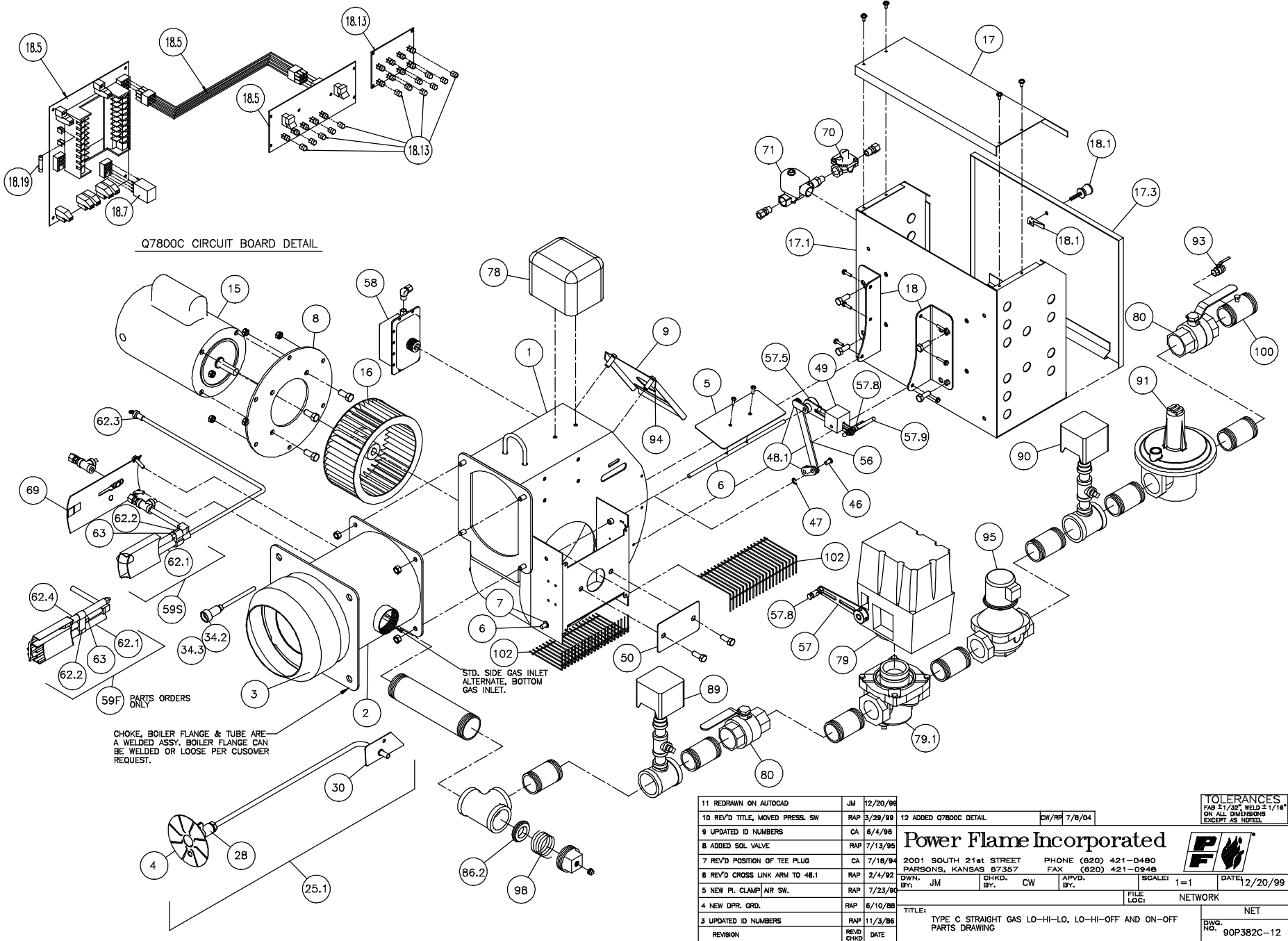
54 BOLT ON DAMPER BOX ASSEMBLY AND AIR INLET

961100	J15, J30 Bolt On Damper Gasket
961110	J50 Bolt On Damper Gasket
J20027	J15, J30 Bolt On Damper Assembly
J20028	J50 Bolt On Damper Assembly
M10301	J15, J30, J50 Air Inlet Screen
X08667	J15, J30 Air Inlet Cone
X08668	J50 Air Inlet Cone
X09346	1/4 - 20 x 3/4 Hex Head Cap Screw (6 ea. per burner)
X09653	1/4 Medium Split Lock Washer (6 ea. per burner)
M10302	J15/30 Inlet with Screen *
M10303	J50 Inlet with Screen *

* Burner with Bolt On Air Damper Assemblies

<u>ITEM</u> <u>NO</u>	<u>PART</u> <u>NUMBER</u>	<u>DESCRIPTION</u>
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20




Q7800C CIRCUIT BOARD DETAIL

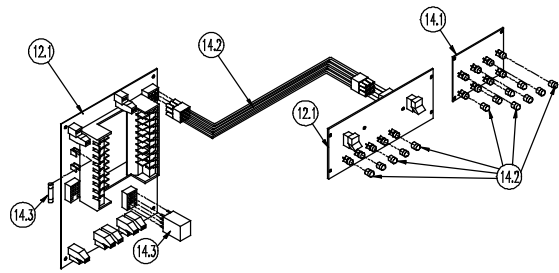
CHOKE, BOILER FLANGE & TUBE ARE A WELDED ASSY. BOILER FLANGE CAN BE WELDED OR LOOSE PER CUSTOMER REQUEST.

STD. SIDE GAS INLET
ALTERNATE. BOTTOM
GAS INLET.

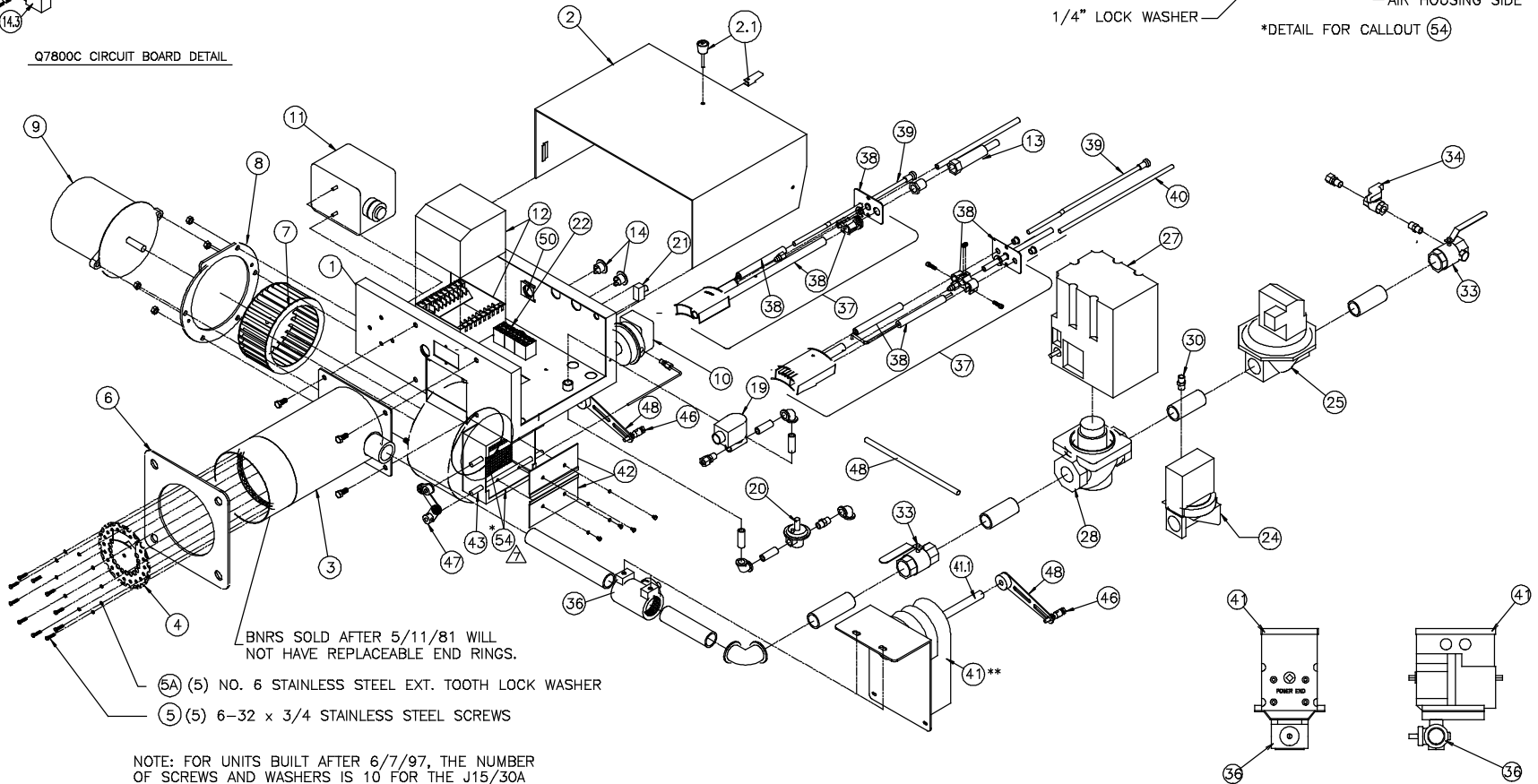
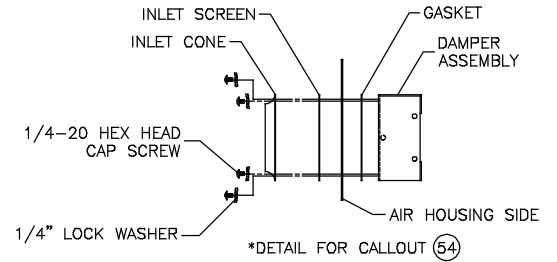
59F PARTS ORDERS ONLY

11 REDRAWN ON AUTOCAD	JM	12/20/88	12 ADDED Q7800C DETAIL	CM/RF	7/8/04	TOLERANCES FAB ±1/32" WELD ±1/16" ON ALL DIMENSIONS EXCEPT AS NOTED.	
10 REV'D TITLE, MOVED PRESS. SW	RAP	3/29/89	Power Flame Incorporated		2001 SOUTH 21st STREET PARSONS, KANSAS 67357		PHONE (820) 421-0480 FAX (820) 421-0948
9 UPDATED ID NUMBERS	CA	8/4/86	7 REV'D POSITION OF TEE PLUG		CA	7/18/94	
8 ADDED SOL. VALVE	RAP	7/13/95	6 REV'D CROSS LINK ARM TO 48.1		RAP	2/4/92	
7 REV'D POSITION OF TEE PLUG	CA	7/18/94	5 NEW PL. CLAMP AIR SW.		RAP	7/23/90	SCALE: 1=1
6 REV'D CROSS LINK ARM TO 48.1	RAP	2/4/92	4 NEW DPR. GRD.		RAP	6/10/88	DATE: 12/20/99
5 NEW PL. CLAMP AIR SW.	RAP	7/23/90	3 UPDATED ID NUMBERS		RAP	11/3/86	FILE LOC: NETWORK
4 NEW DPR. GRD.	RAP	6/10/88	REVISION		RAP	DATE	TITLE: TYPE C STRAIGHT GAS LO-HI-LO, LO-HI-OFF AND ON-OFF PARTS DRAWING
3 UPDATED ID NUMBERS	RAP	11/3/86	DWG. NO.		90P382C-12		NET

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Q7800C CIRCUIT BOARD DETAIL



BNRS SOLD AFTER 5/11/81 WILL NOT HAVE REPLACEABLE END RINGS.

5A (5) NO. 6 STAINLESS STEEL EXT. TOOTH LOCK WASHER
 (5) (5) 6-32 x 3/4 STAINLESS STEEL SCREWS

NOTE: FOR UNITS BUILT AFTER 6/7/97, THE NUMBER OF SCREWS AND WASHERS IS 10 FOR THE J15/30A AND 12 FOR J50A.

**M9174 MODULATION MOTOR OPTION

REVISION	REV'D	CHK'D	DATE	REVISION	REV'D	CHK'D	DATE
				8	ADDED DIRECT DRIVE MOD. MOTOR	CA/CW	9/22/00
				7	ADDED CALLOUT(54); BOLT ON DAMPER	CA/CW	9/21/00
					ADDED 5A AND NOTE	CA	9/25/96
					REV'D CALLOUT NUMBERS	CA	5/31/98
					ADDED V4843B ITEM (25)	RAP	7/14/95
					ADDED Q7800C CIRCUIT BOARD DETAIL	CW/RAP	11/13/04
					ADDED ID 33.5	RAP	5/11/92
					SWITCHED M9174 AND M9184 MOD. MOTORS	CA	11/14/00
					NEW PI CLAMP, AIR SW.	RAP	7/24/90

Power Flame Incorporated

2001 SOUTH 21st STREET PARSONS, KANSAS 67357
 PHONE (620) 421-0480 FAX (620) 421-0948



DWN. BY: CA CHKD. BY: APVD. BY: SCALE: 1"=1" DATE: 9/21/00

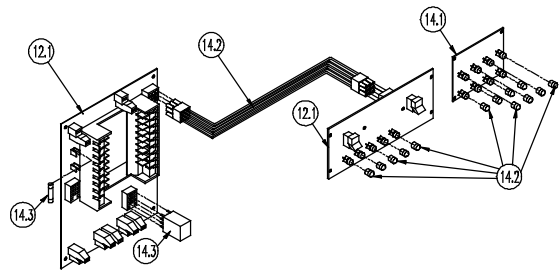
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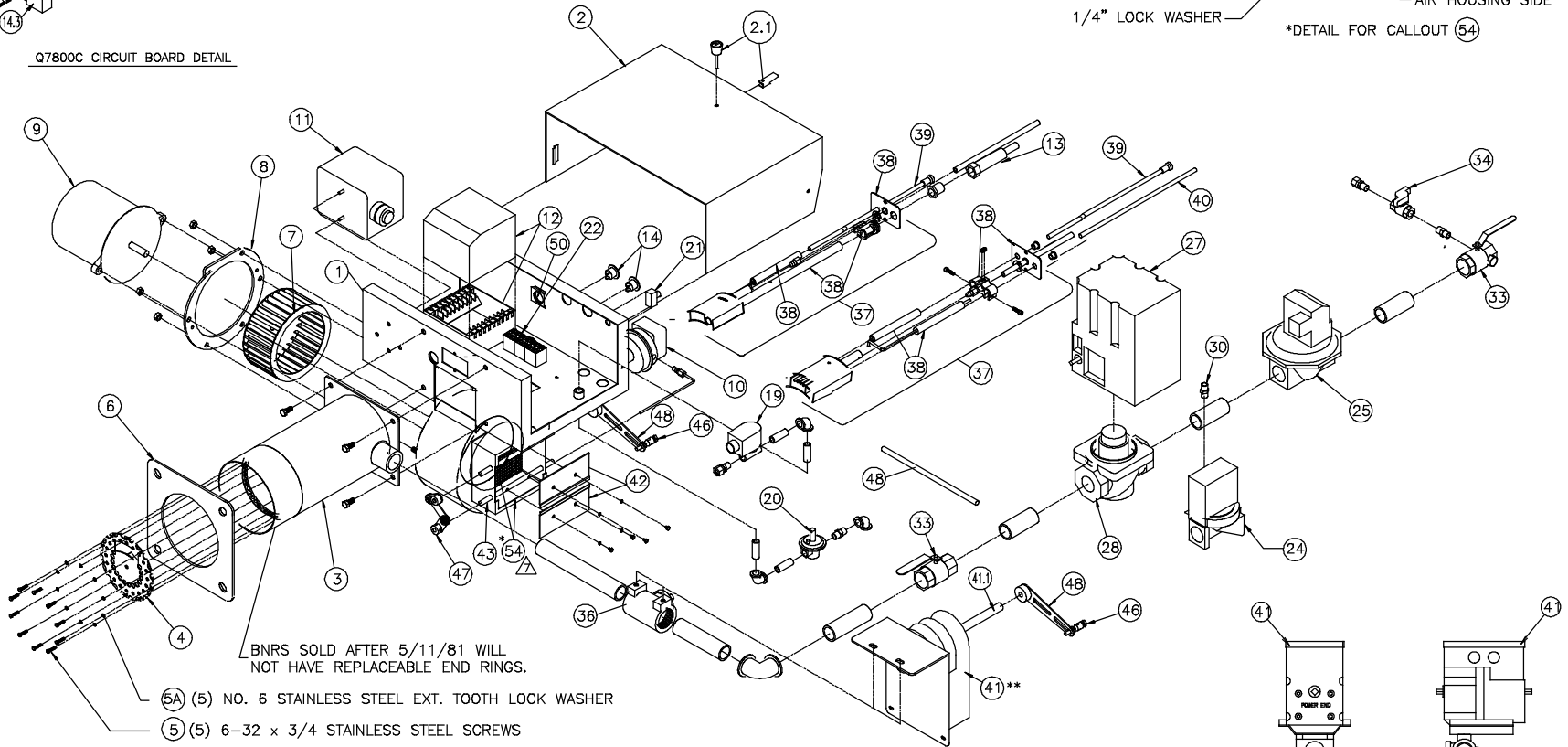
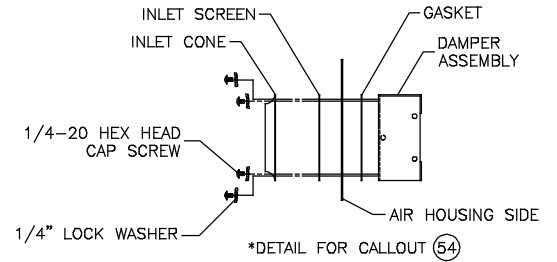
JA BURNER MODULATION PARTS DRAWING

DWG. NO. 90P402C-11

PROPRIETARY AND CONFIDENTIALITY NOTICE: THE CONTENTS OF THIS TEMPLATE CONSTITUTE PROPRIETARY AND CONFIDENTIAL INFORMATION OWNED BY POWER FLAME INCORPORATED. IT SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, AND SHALL NOT BE DISCLOSED TO ANYONE OUTSIDE POWER FLAME WITHOUT THE PRIOR EXPRESS APPROVAL OF POWER FLAME.



Q7800C CIRCUIT BOARD DETAIL



NOTE: FOR UNITS BUILT AFTER 6/7/97, THE NUMBER OF SCREWS AND WASHERS IS 10 FOR THE J15/30A AND 12 FOR J50A.

**M9174 MODULATION MOTOR OPTION

REVISION	REV'D	CHK'D	DATE	REVISION	REV'D	CHK'D	DATE
				8	ADDED DIRECT DRIVE MOD. MOTOR	CA/CW	9/22/00
				7	ADDED CALLOUT (54); BOLT ON DAMPER	CA/CW	9/21/00
					ADDED 5A AND NOTE	CA	9/25/96
					REV'D CALLOUT NUMBERS	CA	5/31/98
					ADDED V4843B ITEM (25)	RAP	7/14/95
					ADDED Q7800C CIRCUIT BOARD DETAIL	CW/RAP	11/13/04
					ADDED ID 33.5	RAP	5/11/92
					SWITCHED M9174 AND M9184 MOD. MOTORS	CA	11/14/00
					NEW PI CLAMP, AIR SW.	RAP	7/24/90

Power Flame Incorporated

2001 SOUTH 21st STREET
 PARSONS, KANSAS 67357

PHONE (620) 421-0480
 FAX (620) 421-0948



DWN. BY: CA CHKD. BY: APVD. BY: SCALE: 1"=1" DATE: 9/21/00

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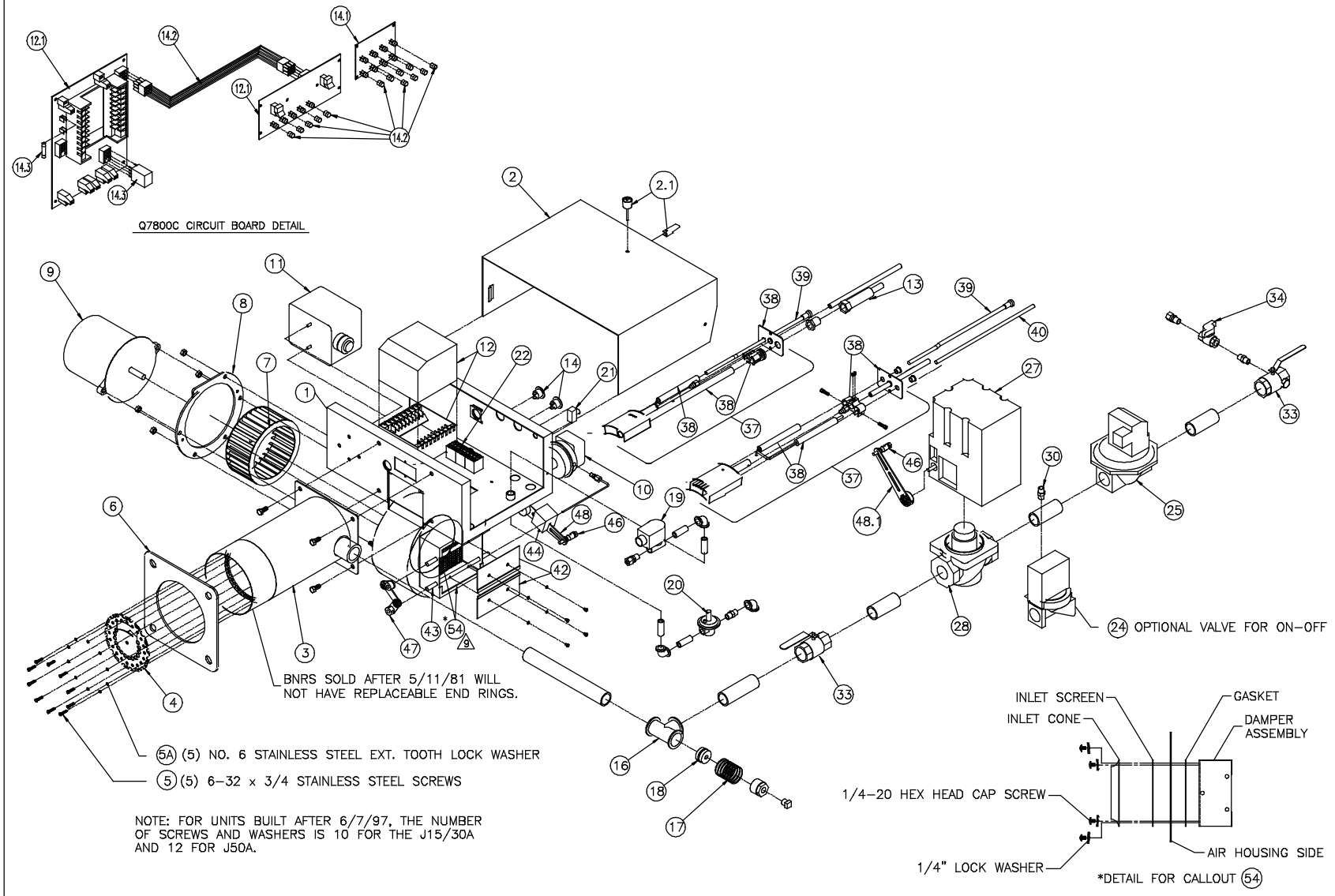
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JA BURNER MODULATION PARTS DRAWING

DWG. NO. 90P402C-11

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Q7800C CIRCUIT BOARD DETAIL

BNRS SOLD AFTER 5/11/81 WILL NOT HAVE REPLACEABLE END RINGS.

- 5A (5) NO. 6 STAINLESS STEEL EXT. TOOTH LOCK WASHER
- 5 (5) 6-32 x 3/4 STAINLESS STEEL SCREWS

NOTE: FOR UNITS BUILT AFTER 6/7/97, THE NUMBER OF SCREWS AND WASHERS IS 10 FOR THE J15/30A AND 12 FOR J50A.

REVISION	REV'D	CHK'D	DATE	REVISION	REV'D	CHK'D	DATE
				REDRAWN TO CAD & UPDATED	CW/RAP		4/8/99
				ADDED 5A AND NOTE	CA		9/24/98
				REV'D. CALL OUT NUMBERS	CA		5/31/98
				ADDED V4843B ITEM 25	RAP		7/14/95
				ADDED ID 33.5	RAP		5/11/92
				ADDED Q7800C CIRCUIT BOARD DETAIL	CW/RAP		1/13/04
				UPDATED PI CLAMP & AIR SW	RAP		7/23/90
				ADDED CALLOUT (54); BOLT ON DAMPER	CA/MM		9/21/00
				UPDATED	RAP		11/17/86

Power Flame Incorporated

2001 SOUTH 21st STREET PARSONS, KANSAS 67357
 PHONE (620) 421-0480 FAX (620) 421-0948



DWN. BY: CW CHKD. BY: APVD. BY: SCALE: 1"=1" DATE: 4/8/99

DO NOT SCALE FROM DRAWING FILE LOC: NETWORK

TITLE: JA BURNER LO-HI-LO, LO-HI-OFF & ON-OFF PARTS DRAWING. DWG. NO. 90P99C-10