

---

# REPLACEMENT PARTS MANUAL

## OIL FIRED FURNACE

Models: **FLF085V42A**  
**FLR085V42A**  
**FLF110V48A**  
**FLR110V48A**  
**FLF110V60A**  
**FLR110V60A**  
**FLR140V60A**

---

### General Notes

- Revised and/or additional pages may be issued from time to time.
- A complete and current manual consists of pages shown in the following contents section.

### Important

- Contact the installing and/or local Bard distributor for all parts requirements. Make sure you have the complete model and serial number available from the unit rating plate.

### Contents

Description	Page
Cabinet and Functional Components	
♦ Exploded View .....	2
♦ Usage List .....	3
♦ Usage List .....	4
♦ Usage List .....	5
Control Panel	
♦ Layout View .....	6
♦ Usage List .....	7
Blower Assembly	
♦ Exploded View .....	8
♦ Usage List .....	9
Burner Assembly	
♦ Exploded View .....	10
♦ Usage List .....	11
Burner Components	
♦ Exploded View .....	12
♦ Usage List .....	13
♦ Usage List .....	14
♦ Exploded View .....	15
♦ Usage List .....	16

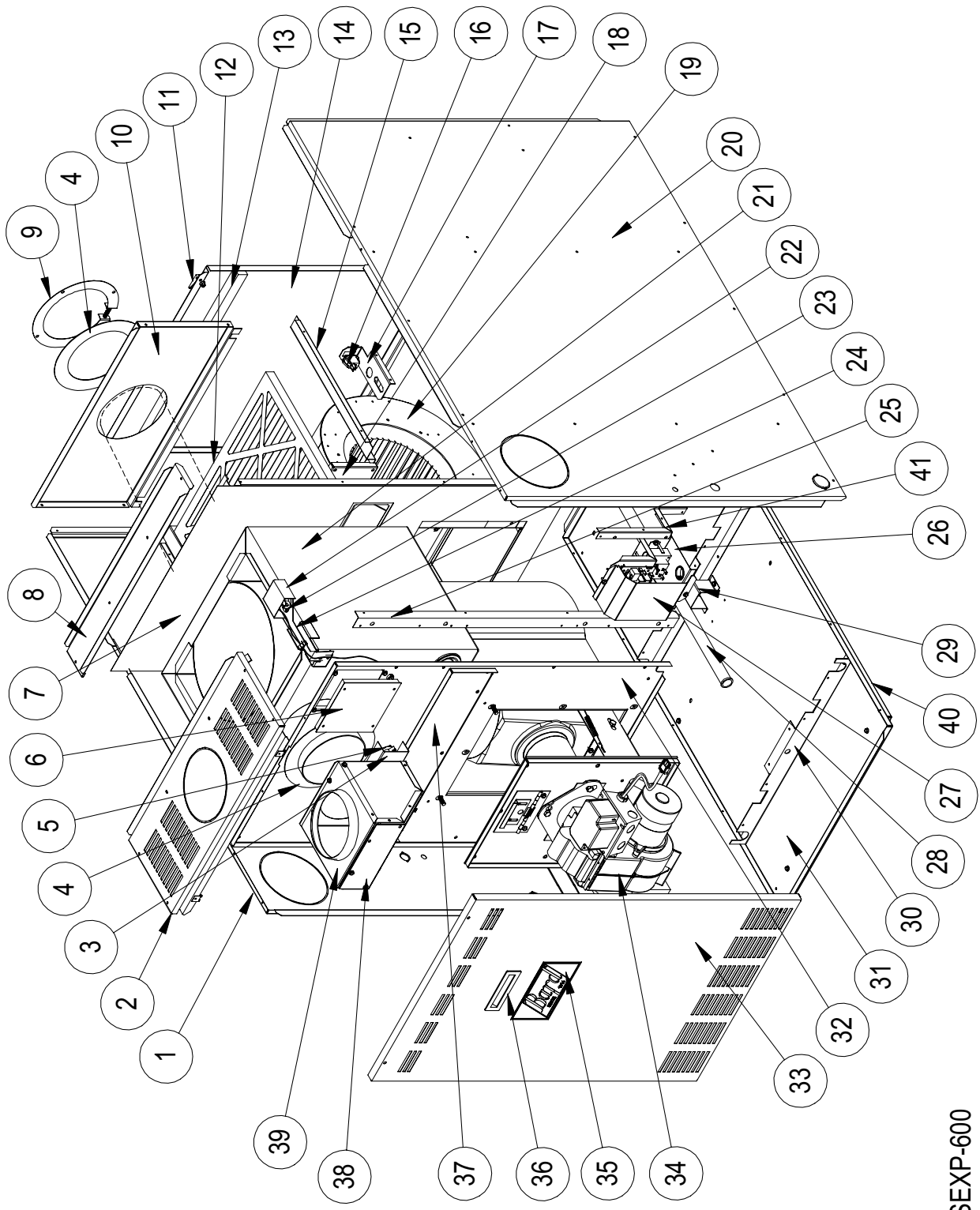


**Climate Control Solutions**

Bard Manufacturing Company, Inc.  
Bryan, Ohio 43506  
*Since 1914...Moving ahead, just as planned.*

Manual: 2110-928A  
Supersedes: 2110-928  
File: Tab 3  
Date: 11-21-11

# CABINET and FUNCTIONAL COMPONENTS



SEXP-600

## CABINET and FUNCTIONAL COMPONENTS

Drawing No.	Part No.	Description	FLF085V42A	FLR085V42A	FLF110V48A	FLR110V48A	FLF110V60A	FLR110V60A	FLR140V60A
1	S101-412-4	Left Side Assembly	X	X					
1	S101-414-4	Left Side Assembly			X	X	X	X	
1	S101-416-4	Left Side Assembly							X
2	S107-231-4	Top Fill Assembly	X	X	X	X	X	X	
2	S107-233-4	Top Fill Assembly							X
3	143-094	Partition Limit Cover	X	X	X	X	X	X	X
4	1921-037	Smokepipe Gasket	X	X	X	X	X	X	X
5	8402-147	Backup Limit L190	X		X		X		
5	8402-148	Backup Limit L325		X		X		X	X
6	S142-089	Limit Access Door	X	X	X	X	X	X	X
7	S121-367	Blower Partition	X						
7	S121-363	Blower Partition		X					
7	S121-370	Blower Partition			X		X		
7	S121-364	Blower Partition				X		X	
7	S121-371	Blower Partition							X
8	165-577-4	Top Channel	X	X	X	X	X	X	X
8	165-579-4	Top Channel							
9	166-019	Smokepipe Clamp		X		X		X	X
10	109-172-4	Upper Back	X		X		X		
10	109-171-4	Upper Back		X		X		X	
10	109-173-4	Upper Back							X
11	1171-053	Swell Latch	X	X	X	X	X	X	X
12	7004-035	16 x 20 x 2 Pleated Filter	X	X					
12	7004-052	20 x 20 x 2 Pleated Filter			X	X			
12	7004-040	20 x 25 x 2 Pleated Filter							X
12	7003-041	20 x 20 x 1 Alum Mesh					X	X	
13	1913-006-2200	Foam Seal	X	X	X	X	X	X	
13	1913-006-2500	Foam Seal							X
14	S153-365-4	Blower Door Assembly	X	X					
14	S153-364-4	Blower Door Assembly			X	X	X	X	
14	S153-359-4	Blower Door Assembly							X
15	131-138	Filter Support	X	X					
15	131X139	Right Filter Support			X	X	X	X	
15	131Y139	Left Filter Support			X	X	X	X	
15	131X140	Right Filter Support							X
15	131Y140	Left Filter Support							X
16	8406-076	Door Switch	X	X	X	X	X	X	X
17	112-300	Plug Bracket	X	X	X	X	X	X	X

Table Continued on Page 4

# CABINET and FUNCTIONAL COMPONENTS

Table Continued from Page 3

Drawing No.	Part No.	Description	FLF085V42A	FLR085V42A	FLF110V48A	FLR110V48A	FLF110V60A	FLR110V60A	FLR140V60A
18	S143-092	Rear Cleanout Cover	X	X	X	X	X	X	
18	S143-096	Rear Cleanout Cover							X
19	S900-313-001	Blower Assembly	X	X					
19	S900-314-001	Blower Assembly			X	X			
19	S900-315-001	Blower Assembly					X	X	
19	S900-315-002	Blower Assembly							X
20	S101-411-4	Right Side Assembly	X	X					
20	S101-413-4	Right Side Assembly			X	X	X	X	
20	S101-415-4	Right Side Assembly							X
21	S171-267	Heat Exchanger Assembly	X						
21	S171-269	Heat Exchanger Assembly		X					
21	S171-268	Heat Exchanger Assembly			X		X		
21	S171-270	Heat Exchanger Assembly				X		X	
21	S171-271	Heat Exchanger Assembly							X
22	143-091	Primary Limit Cover	X	X	X	X	X	X	X
23	8402-065	Primary Limit L160							X
23	8402-079	Primary Limit L200				X			
23	8402-161	Primary Limit L210		X					
23	8402-146	Primary Limit L185						X	
23	8402-154	Primary Limit L165	X		X		X		
24	112-312	Primary Limit Bracket	X	X	X	X	X	X	X
25	105-1141	Side Angle	X	X					
25	105-1142	Side Angle			X	X	X	X	
25	105-1147	Side Angle							X
26	S117-301	Control Panel	X	X	X	X	X	X	X
27	133-209	Control Panel Cover	X	X	X	X	X	X	X
28	8611-089	2.4 Feet Wire Channel	X	X	X	X	X	X	X
29	164-585	Rear Heat Exchanger Support	X	X	X	X	X	X	X
30	104-1140	Front Heat Exchanger Support	X	X	X	X	X	X	
30	104-1149	Front Heat Exchanger Support							X
31	127-330	Base	X	X	X	X	X	X	
31	127-331	Base							X
32	S121-365	Burner Partition	X						
32	S121-368	Burner Partition		X					
32	S121-366	Burner Partition			X		X		
32	S121-369	Burner Partition				X		X	
32	S121-372	Burner Partition							X

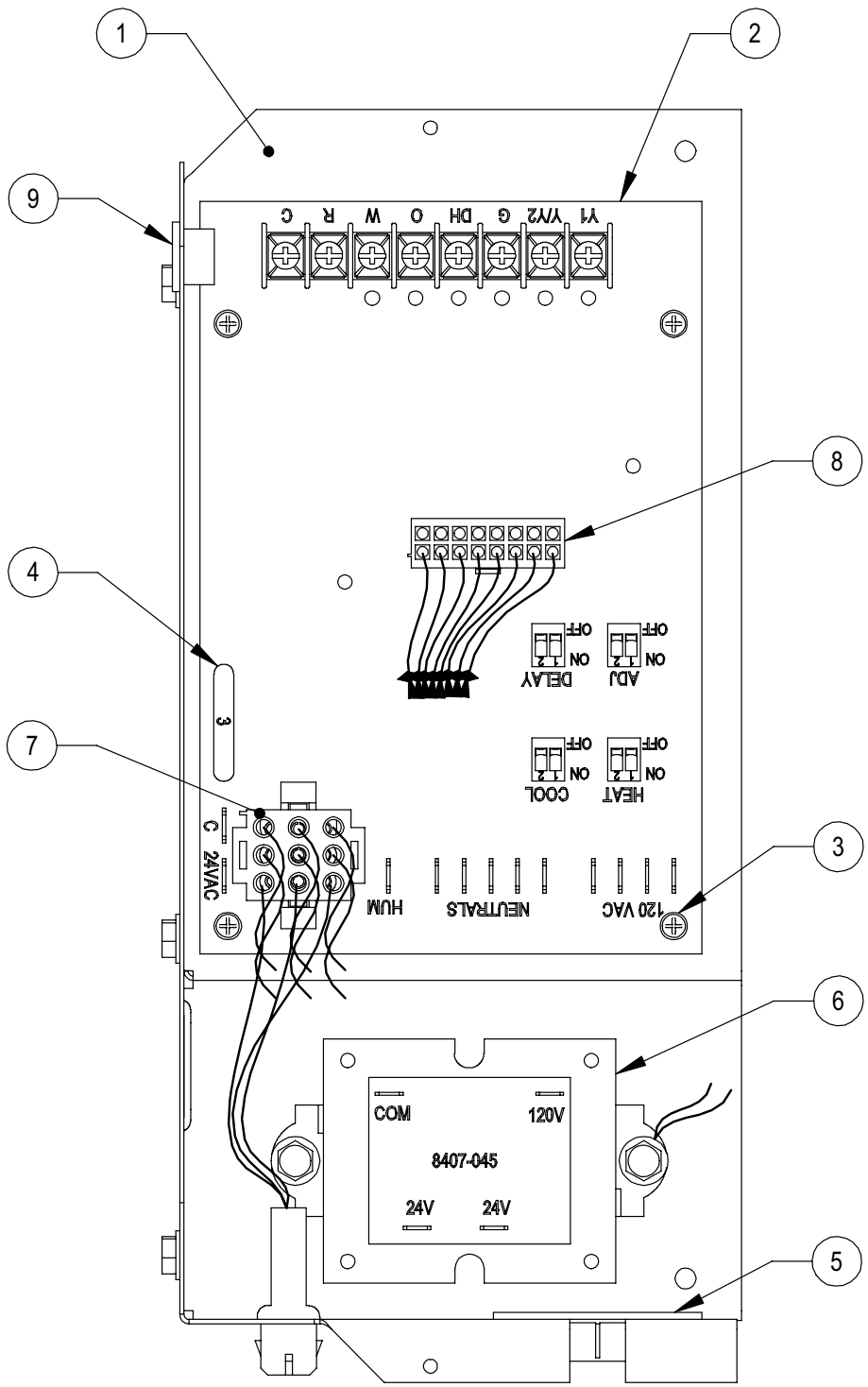
Table Continued on Page 5

# CABINET and FUNCTIONAL COMPONENTS

Table Continued from Page 4

Drawing No.	Part No.	Description	FLF085V42A	FLR085V42A	FLF110V48A	FLR110V48A	FLF110V60A	FLR110V60A	FLR140V60A
33	S153-354-4	Vestibule Door	X	X					
33	S153-355-4	Vestibule Door			X	X	X	X	
33	S153-358-4	Vestibule Door							X
34	9020-040	AFG Oil Burner w/.75 GPH Nozzle	X						
34	9020-041	AFG Oil Burner w/.75 GPH Nozzle		X					
34	9020-044	NX Oil Burner w/.85 GPH Nozzle			X		X		
34	9020-042	AFG Oil Burner w/1.00 GPH Nozzle				X		X	
34	9020-043	AFG Oil Burner w/1.25 GPH Nozzle							X
35	5252-008	Bard Nameplate	X	X	X	X	X	X	X
36	1171-256	Door Pull	X	X	X	X	X	X	X
37	S143-090	Front Cleanout Cover	X	X	X	X	X	X	
37	S143-095	Front Cleanout Cover							X
38	169-152	Flue Box Door	X	X	X	X	X	X	X
39	S169-150	Flue Box Assembly	X		X		X		
40	165-578	Base Channel	X	X	X	X	X	X	X
41	105-1225	Control Panel Support Angle	X	X	X	X	X	X	X

# CONTROL PANEL



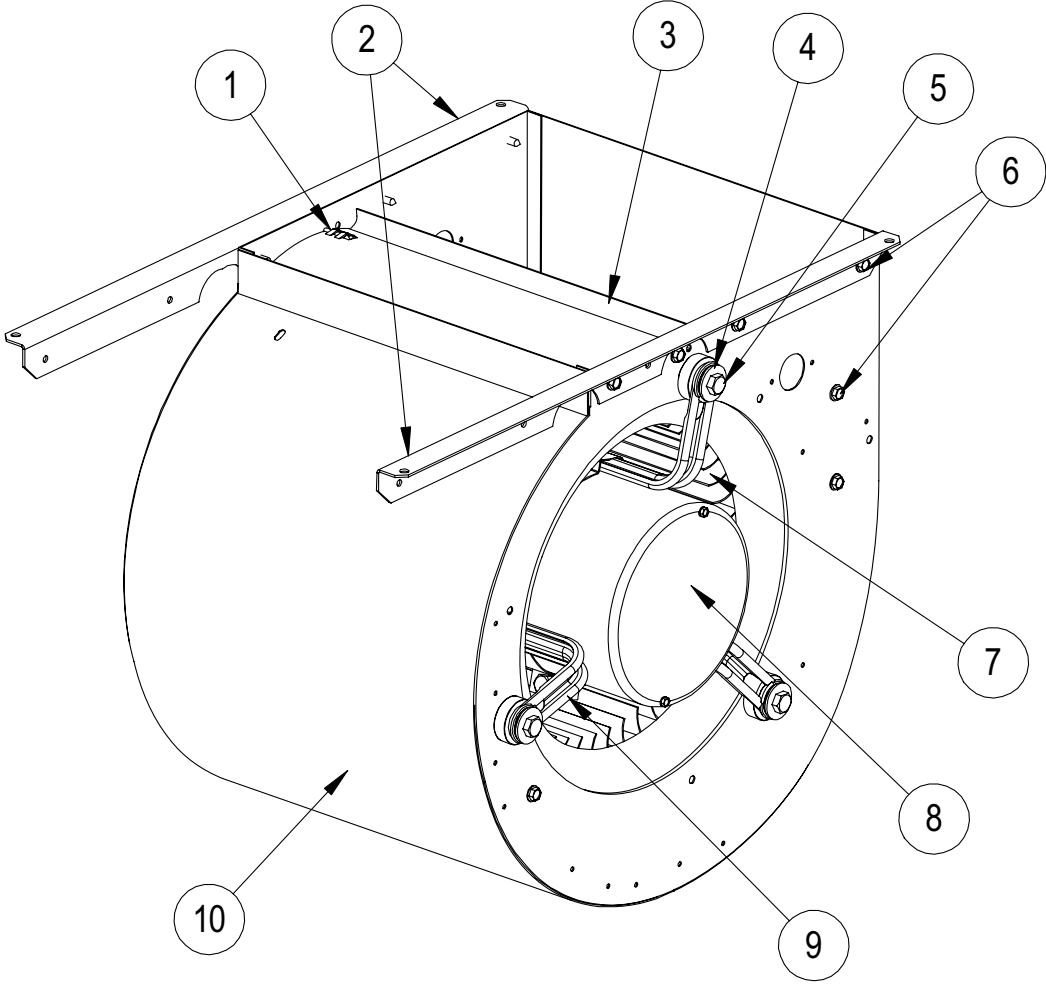
SEXP-597

# CONTROL PANEL

Drawing No.	Part No.	Description	FLF085V42A	FLR085V42A	FLF110V48A	FLR110V48A	FLF110V60A	FLR110V60A	FLR140V60A
1	S117-301	Control Panel	X	X	X	X	X	X	X
2	8201-125	Oil Furnace Blower Control - Variable	X	X	X	X	X	X	X
3	1012-099	#6 - 32 x 3/4 Fillister HD Screw	4	4	4	4	4	4	4
4	8614-045	3 Amp Fuse	X	X	X	X	X	X	X
5	8611-026	1.750" Snap Bushing	2	2	2	2	2	2	2
6	8407-045	Transformer 120/24V 40 VA	X	X	X	X	X	X	X
7	3000-1362	Wire Assembly	X	X	X	X	X	X	X
8	3000-1363	Wire Assembly	X	X	X	X	X	X	X
9	8611-028	1/2" Snap Bushing	X	X	X	X	X	X	X

# BLOWER ASSEMBLY

---



SEXP-598



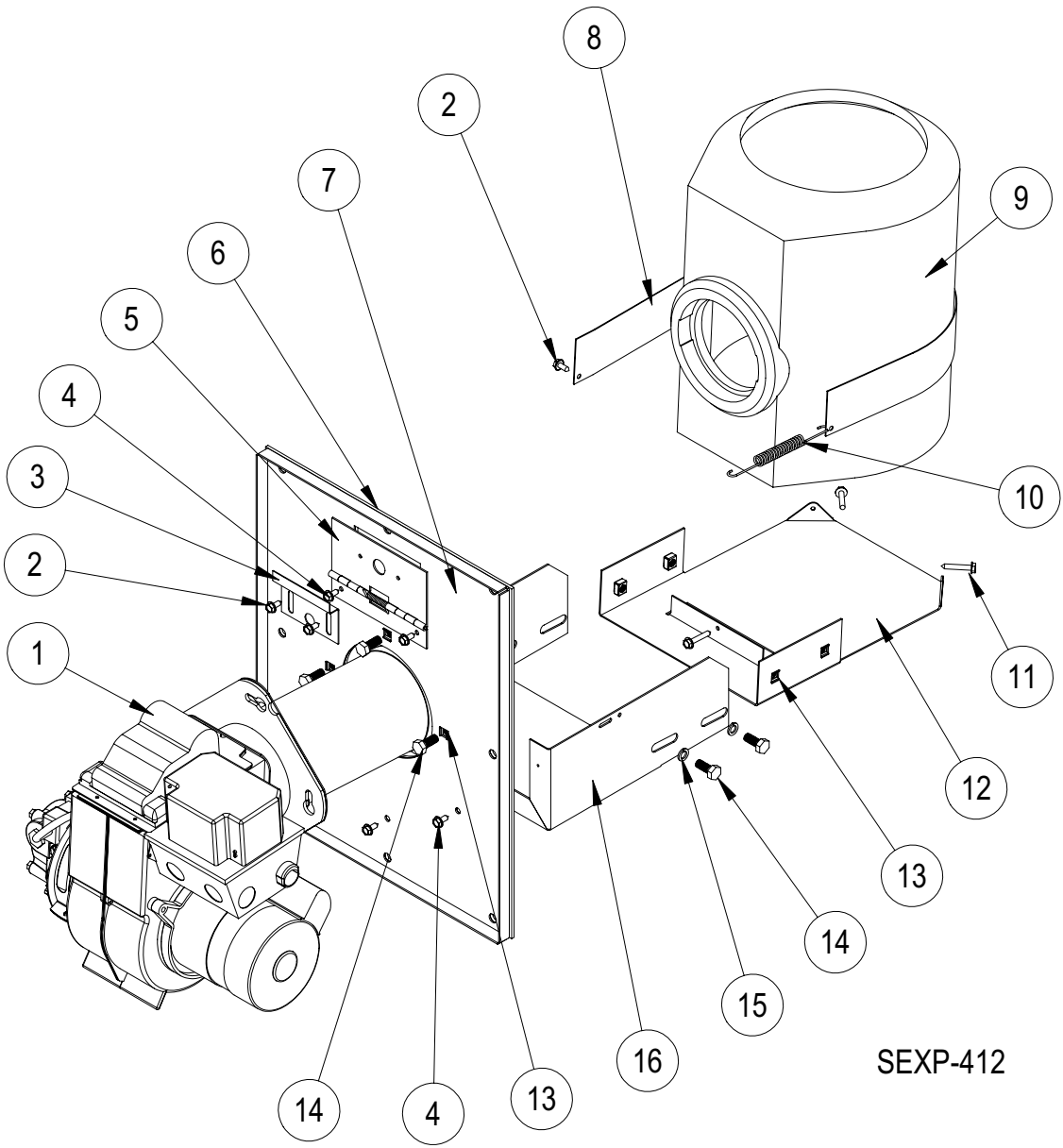
# BLOWER ASSEMBLY

Drawing No.	Part No.	Description	900-313-001	900-314-001	900-315-001	900-315-002
1	1012-088	Scew Type AB #10 – 16x3/4	2	2	①	①
2	104-1143	Blower Angle	2		2	2
2	104-1156	Blower Angle		2		
3	144-128	Diffuser	X		①	①
3	144-129	Diffuser		X		
4	1012-109	Washer	3	3	3	3
5	1012-076	1/4 – 20 x 1-1/4 Type I Bolt	3	3	3	3
6	1012-086	Screw Type AB #10 – 16x1/2 w/nibs	6	6	6	6
7	5152-014	Blower Wheel CW 1/2" 10-9DD	X			
7	5152-059	Blower Wheel CCW 1/2" 10-10DD		X		
7	5152-053	Blower Wheel CW 1/2" 11-10DD			X	X
8	S8106-035-0077	1/2 HP ECM Motor with Programmed Control	X			
8	C8106-035-0077	Programmed Motor Control Only	X			
8	S8107-009-0078	3/4 HP ECM Motor with Programmed Control		X		
8	C8107-009-0078	Programmed Motor Control Only		X		
8	S8108-008-0082	1 HP ECM Motor with Programmed Control			X	
8	C8108-008-0082	Programmed Motor Control Only			X	
8	S8108-008-0083	1 HP ECM Motor with Programmed Control				X
8	C8108-008-0083	Programmed Motor Control Only				X
9	8620-034	Motor Mount Kit	X	X	X	X
10	151-073	Blower Housing	X			
10	151-082	Blower Housing		X		
10	①	Blower Housing			①	①

① Part #5152-050 includes housing, diffuser and blower wheel part #5152-053.

# BURNER ASSEMBLY

---

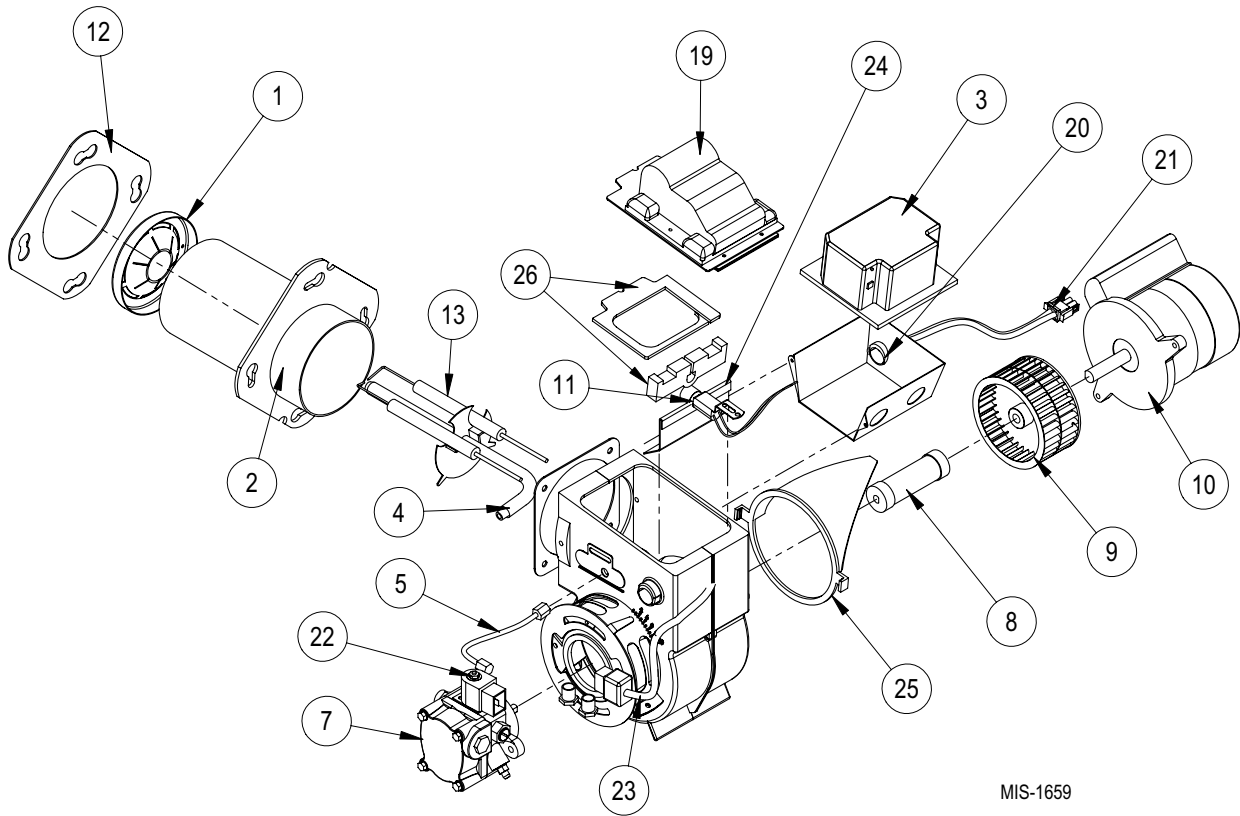


SEXP-412

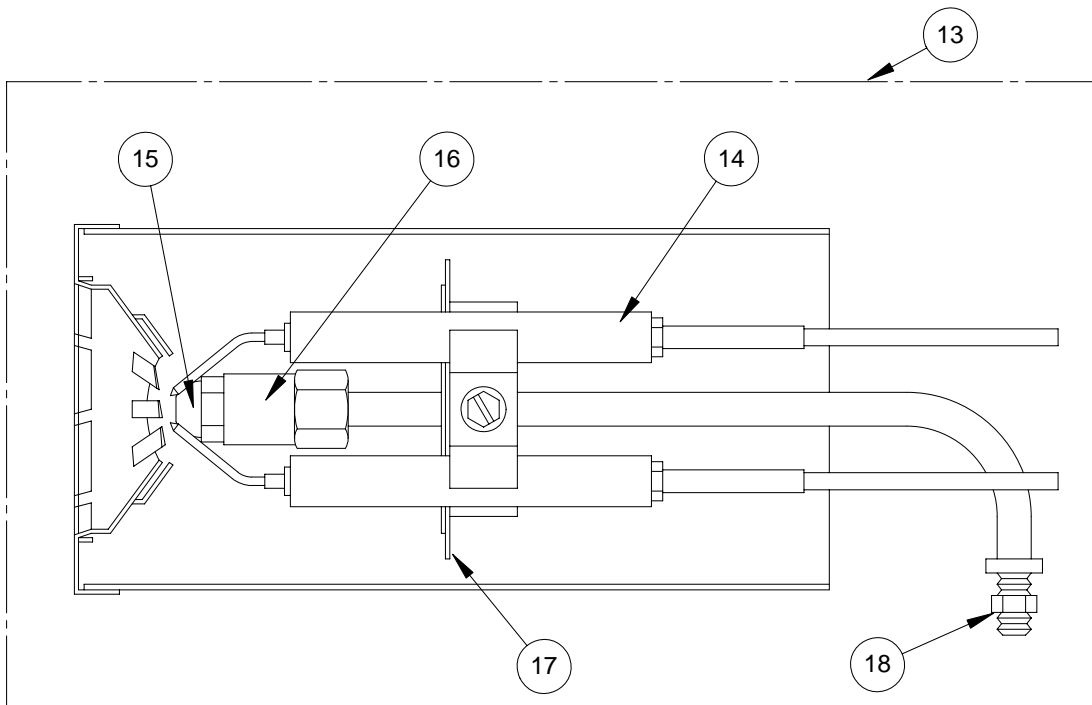
# BURNER ASSEMBLY

Drawing No.	Part No.	Description	FLF085V42A	FLR085V42A	FLF110V48A	FLR110V48A	FLF110V60A	FLR110V60A	FLR140V60A
1	9020-040	AFG Burner w/GeniSys Primary .75 GPH 70° Hollow	X						
1	9020-041	AFG Burner w/GeniSys Primary 1.00 GPH 70° Hollow		X					
1	9020-044	NX Burner w/GeniSys Primary .85 GPH 60° Solid			X		X		
1	9020-042	AFG Burner w/GeniSys Primary 1.00 GPH 70° Hollow				X		X	
1	9020-043	AFG Burner w/GeniSys Primary 1.25 GPH 70° Hollow							X
2	1012-153	Screw Type AB #10 - 16x1/2"	3	3	3	3	3	3	3
3	143-026	Inspection Door Cover Plate	X	X	X	X	X	X	X
4	1012-086	Screw Type AB #10 - 16x1/2" w/nibs	5	5	5	5	5	5	5
5	142-027	Inspection Door Hinge	X	X	X	X	X	X	X
6	1921-057	Front Plate Gasket	X	X	X	X	X	X	
6	1921-058	Front Plate Gasket							X
7	S160-036	Front Plate Assembly	X	X	X	X	X	X	
7	S160-037	Front Plate Assembly							X
8	140-198	Combustion Chamber Support	X	X	X	X	X	X	
8	140-199	Combustion Chamber Support							X
9	7090-014	Pyrolite Combustion Chamber	X	X	X	X	X	X	
9	7090-013	Pyrolite Combustion Chamber							X
10	5401-004	Stainless Steel Spring	X	X	X	X	X	X	X
11	1012-145	Screw Type AB #10 - 16x1"	3	3	3	3	3	3	3
12	S140-292	Bracket Extension	X	X	X	X	X	X	
12	S140-302	Bracket Extension							X
13	1012-218	1/4 - 20 Cage Nut	7	7	7	7	7	7	7
14	1012-051	1/4 - 20x3/4 Hex Head Bolt	7	7	7	7	7	7	7
15	1012-126	1/4" Type "A" Washer	4	4	4	4	4	4	4
16	112-297	Combustion Chamber Bracket	X	X	X	X	X	X	
16	112-302	Combustion Chamber Bracket							X

# BURNER COMPONENTS



MIS-1659



MIS-1663

## BURNER COMPONENTS

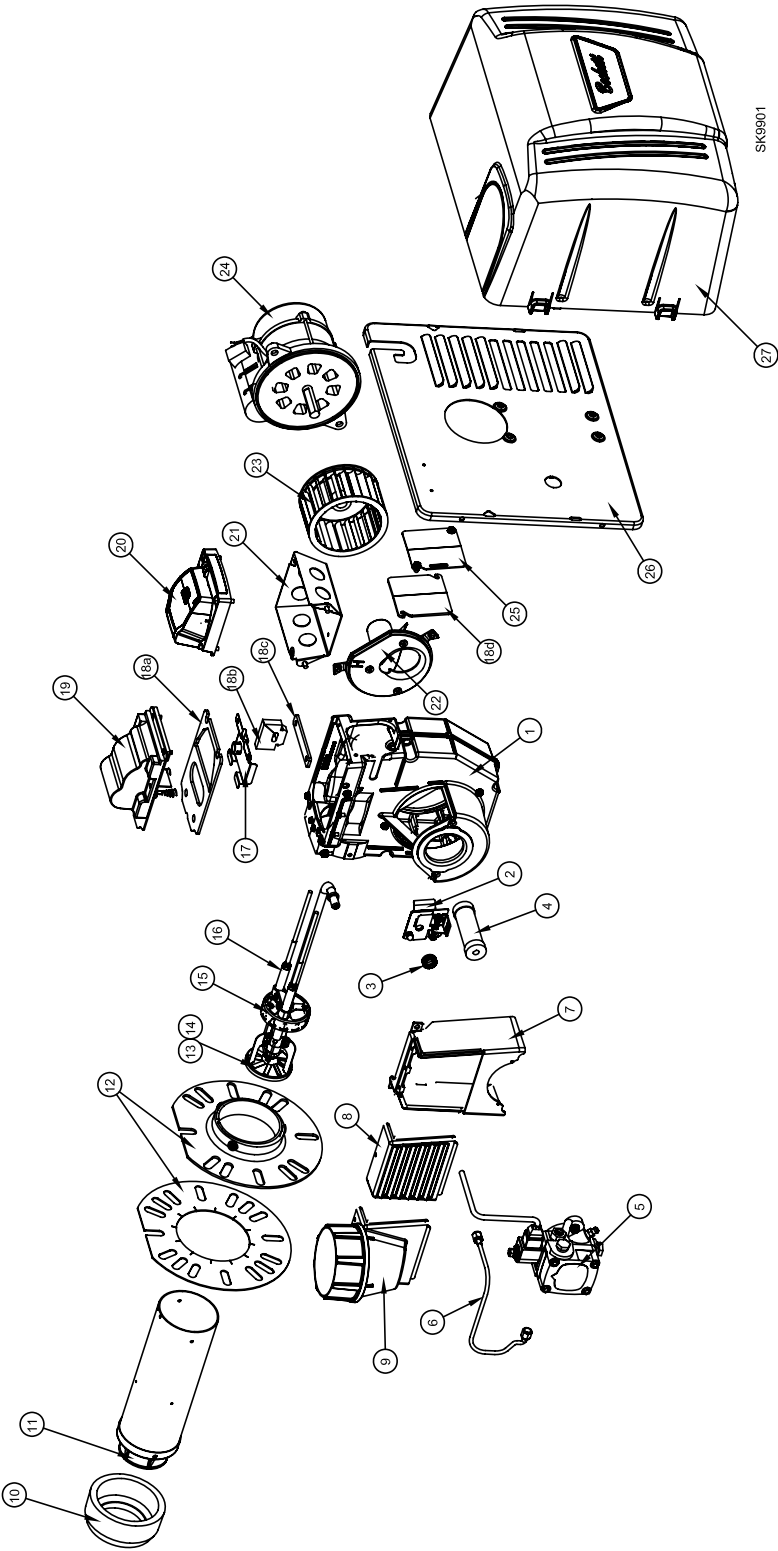
Drawing No.	Bard Part No.	Supplier Part No.	Description	FLR085V42A	FLR110V48A FLR110V60A	FLR140V60A
1	9022-034	360004	Head (F4)	X		
1	9022-042	360006	Head (F6)		X	X
2	9022-004	51236007BK	Air Tube & Flange Assembly	X	X	X
3	9022-095	7505B	Primary Control (GeniSys)	X	X	X
4	9022-007	571801	Bulkhead Fitting	X	X	X
5	9022-008	5636	Connector Tube	X	X	X
7	9022-082	21844U	"CleanCut" Oil Pump	X	X	X
8	9022-011	2454	Coupling	X	X	X
9	9022-083	2999	Blower Wheel	X	X	X
10	9022-084	21805R/218	PSC Motor 1/7 H.P.	X	X	X
11	9022-085	7006Q	CAD Cell	X	X	X
12	9022-021	3811	Mounting Flange Gasket	X	X	X
13	9022-015	NL72YH	Nozzle Line Electrode Assembly	X	X	X
14	9022-017	5780	Electrode Insulator Assembly	X	X	X
15	9011-016	2663	Nozzle .75 GPH 70° Hollow	X		
15	9011-018	2711	Nozzle 1.00 GPH 70° Hollow		X	
15	9011-020	21383	Nozzle 1.25 GPH 70° Hollow			X
16	9022-016	312U	Nozzle Adapter	X	X	X
17	9022-023	3384	Static Plate (3-3/8")	X	X	X
18	9022-018	3666	Bulkhead Fitting Locknut	X	X	X
19	9022-079	7440	Solid State Igniter	X	X	X
20	9022-086	3741	Junction Box	X	X	X
21	9022-055	31838	Power Cord	X	X	X
22	9022-087	21755	Solenoid Valve Coil	X	X	X
23	9022-088	210807	Solenoid Valve Cord	X	X	X
24	9022-089	3708	Restrictor Baffle	X	X	X
25	9022-090	31231	Air Guide	X	X	X
26	9022-093	51304	Igniter Gasket Kit	X	X	X

# BURNER COMPONENTS

---

Drawing No.	Bard Part No.	Supplier Part No.	Description	FLF085V42A
1	9022-034	360004	Head (F4)	X
1	9022-042	360006	Head (F6)	
2	9022-004	51236007BK	Air Tube & Flange Assembly	X
3	9022-095	7505B	Primary Control	X
4	9022-007	571801	Bulkhead Fitting	X
5	9022-008	5636	Connector Tube	X
7	9022-082	21844U	"CleanCut" Oil Pump	X
8	9022-011	2454	Coupling	X
9	9022-083	2999	Blower Wheel	X
10	9022-084	21805R/218	PSC Motor 1/7 H.P.	X
11	9022-085	7006Q	CAD Cell	X
12	9022-021	3811	Mounting Flange Gasket	X
13	9022-014	NL90YH	Nozzle Line Electrode Assembly	X
14	9022-017	5780	Electrode Insulator Assembly	X
15	9011-016	2663	Nozzle .75 GPH 70° Hollow	X
15	9011-018	2711	Nozzle 1.00 GPH 70° Hollow	
16	9022-016	312U	Nozzle Adapter	X
17	9022-023	3384	Static Plate (3-3/8")	X
18	9022-018	3666	Bulkhead Fitting Locknut	X
19	9022-079	7440	Solid State Igniter	X
20	9022-086	3741	Junction Box	X
21	9022-055	31838	Power Cord	X
22	9022-087	21755	Solenoid Valve Coil	X
23	9022-088	210807	Solenoid Valve Cord	X
24	9022-089	3708	Restrictor Baffle	X
25	9022-090	31231	Air Guide	X
26	9022-093	51304	Igniter Gasket Kit	X

# BURNER COMPONENTS



# BURNER COMPONENTS

Drawing No.	Bard Part #	Supplier Part #	Description	FLF110V48A	FLF110V60A
1	N/A	51783GY	Housing	X	X
2	N/A	52000U	Head/Air Adjustment Mechanism Assy.	X	X
3	9022-018	3666	Splined Nut	X	X
4	9022-011	2454	Coupling	X	X
5	9022-082	21844U	"CleanCut" Oil Pump (Includes Mounting Screws)	X	X
6	N/A	51127	Connector Tube Assembly, 11"	X	X
7	N/A	1010U	Inlet Air Box	X	X
8	N/A	1013U	Inlet Air Louvers	X	X
9	N/A	1014U	Inlet Air Adaptor/Outside Air Kit	X	X
10	9022-096	32246	Heat Shield	X	X
11	N/A	N/A	Air Tube Combination	X	X
12	9022-097	NX84LBHS	Air Tube Combination Including Screws	X	X
13	N/A	N/A	Retention Head Assembly (6-Slot)	X	X
14	9022-098	51815U	Retention Head Assembly (9-Slot)	X	X
15	9022-099	7440B	Nozzle, Line Electrode, Head Assy., with Window	X	X
16	9022-100	51811U	Electrode Insulator Kit	X	X
17	N/A	32058U	Spring, Igniter Prop	X	X
18	N/A	51942U	Gasket Igniter Kit: Gasket, Igniter Baseplate Gasket, Wiring Hinge Gasket, Igniter Baseplate Hinge Gasket, Rear Access Door	X	X
19	9022-079	51771U	Igniter, Electronic	X	X
20	9022-095	7505B1500	Genisys Ignition Logic Control	X	X
21	9022-058	5770	Electrical Box	X	X
22	N/A	101101U	Air Guide	X	X
23	9022-045	2999U	Blower Wheel	X	X
24	9022-084	21805R/218	PSC Motor 1/7 H.P.	X	X
25	N/A	32119U	Door, Rear Access	X	X
26	N/A	N/A	Mounting Plate, Burner Cover	X	X
27	N/A	N/A	Cover, Burner	X	X
NS	N/A	51801U	Universal Adjust. Flange Kit, incl. 32086 Gasket	X	X
NS	9022-088	21807	Cordset Non-Delay 17"	X	X
NS	9022-054	7006U	CAD Cell Assembly	X	X
NS	9011-022	N/A	Nozzle 0.85X60° Solid (Factory Ship)	X	X
NS	9011-023	N/A	Nozzle 0.75X60° Solid (Factory Approved Re-Date)	X	X