

# REPLACEMENT PARTS MANUAL

## FREE COOLING UNIT SYSTEM

### AIR CONDITIONER MODELS

W48A2PQ    W48L2PQ  
 W60A2PQ    W60L2PQ  
 W72A2PQ    W72L2PQ

### CONTROLLER MODEL

LC5000

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### 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

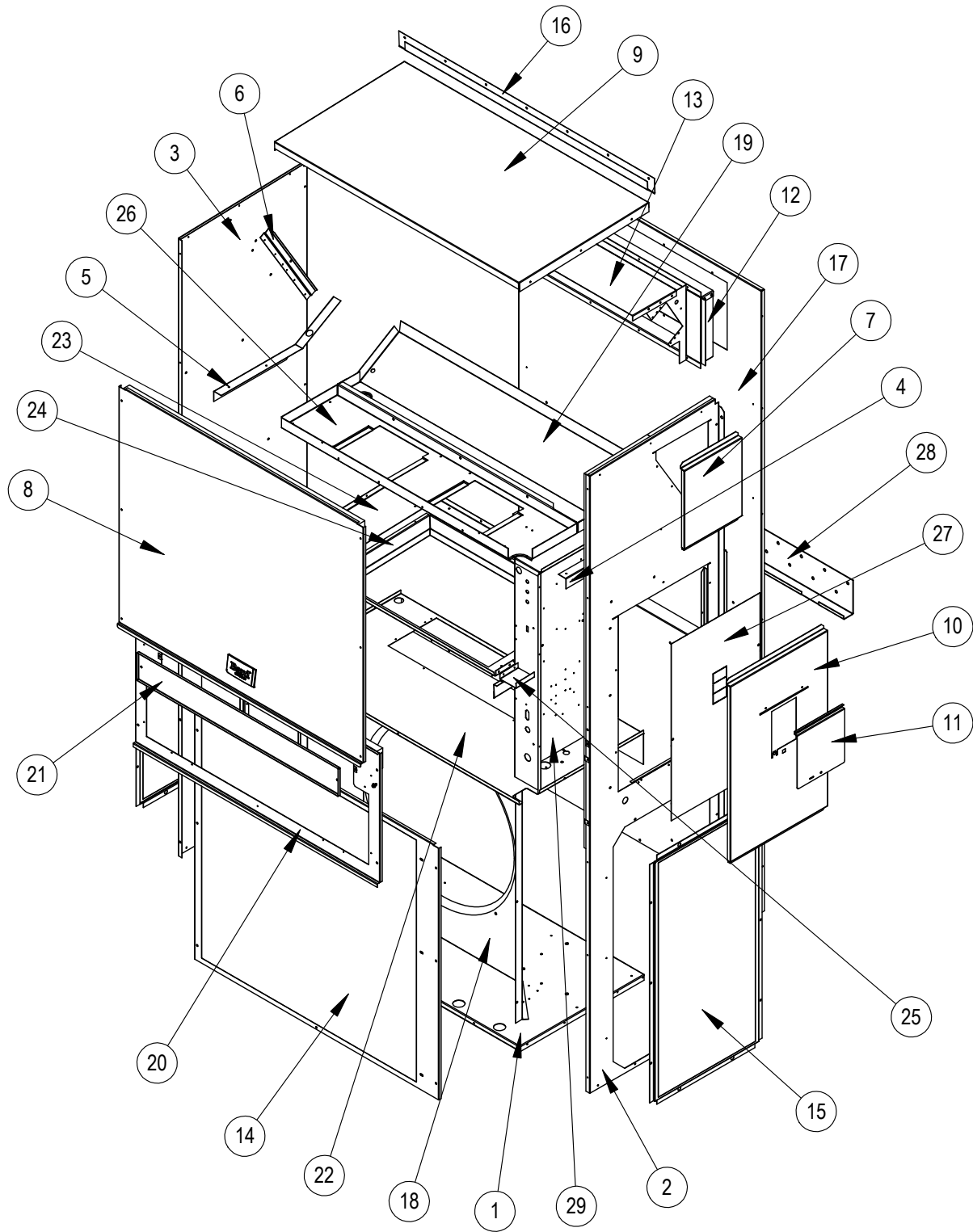
- Contact the installing and/or local Bard distributor for all parts requirements. Make sure to have the complete model and serial number available from the unit rating plates.



Bard Manufacturing Company, Inc.  
 Bryan, Ohio 43506  
[www.bardhvac.com](http://www.bardhvac.com)

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 Date: 10-11-17

# CABINET COMPONENTS - Right Hand



SEXP-713

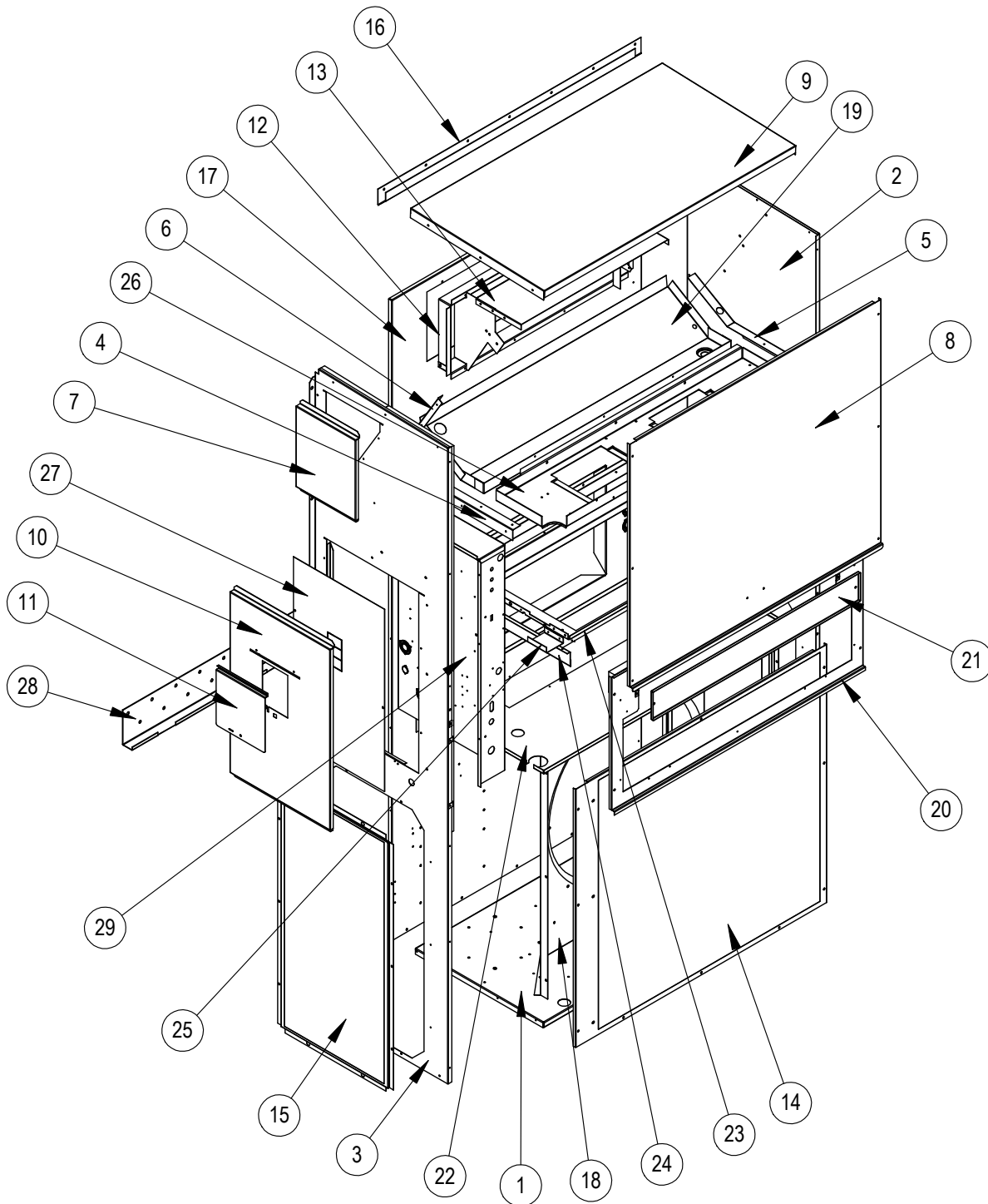
## CABINET COMPONENTS – Right Hand

Dwg. No.	Part Number	Description	W48A2PQ	W60A2PQ	W72A2PQ
1	S127-481	Base	X	X	X
2	S501-889-* ①	Right Side	X	X	X
3	S501-922-* ①	Left Side	X	X	X
4	105X878	Support Angle	X	X	X
5	105X877	Support Angle	X	X	X
6	147-046	Evap. Angle	X	X	X
7	543-172-* ①	Heater Access Cover	X	X	X
8	S515-246-* ①	Upper Front	X	X	X
9	507-307-* ①	Top	X	X	X
10	S533-256-* ①	Control Panel Cover	X	X	X
11	S153-218-* ①	Disconnect Access Door	X	X	X
12	S111X034	Outlet Airframe Assembly	X	X	X
13	135-129	Heat Shield	X	X	X
14	118-085-* ①	Condenser Grille	X	X	X
15	118-086-* ①	Side Grille	2	2	2
16	113-150-* ①	Rain Flashing	X	X	X
17	509-251	Back	X	X	X
18	125-084	Fan Shroud	X	X	X
19	523-144	Drain Pan Assembly	X	X	X
20	553-600-* ①	Hood Mounting Door	X	X	X
21	553-641	Filter Door	X	X	X
22	521X517	Condenser Partition	X	X	X
23	131X164	Filter Tray	X	X	X
24	131-165	Filter Tray Angle	X	X	X
25	137-209	Fill Plate	X	X	X
26	120-463	Blower Partition	X	X	X
27	S132-281	Inner Control Panel Cover	X	X	X
28	113-140	Bottom Support Bracket	X	X	X
29	Control Panel Assembly	See Control Panel Assembly Drawing & Parts List	X	X	X

① Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, reference the following codes:

Beige	-X	Buckeye Gray	-4
White	-1		

# CABINET COMPONENTS - Left Hand



SEXP-714

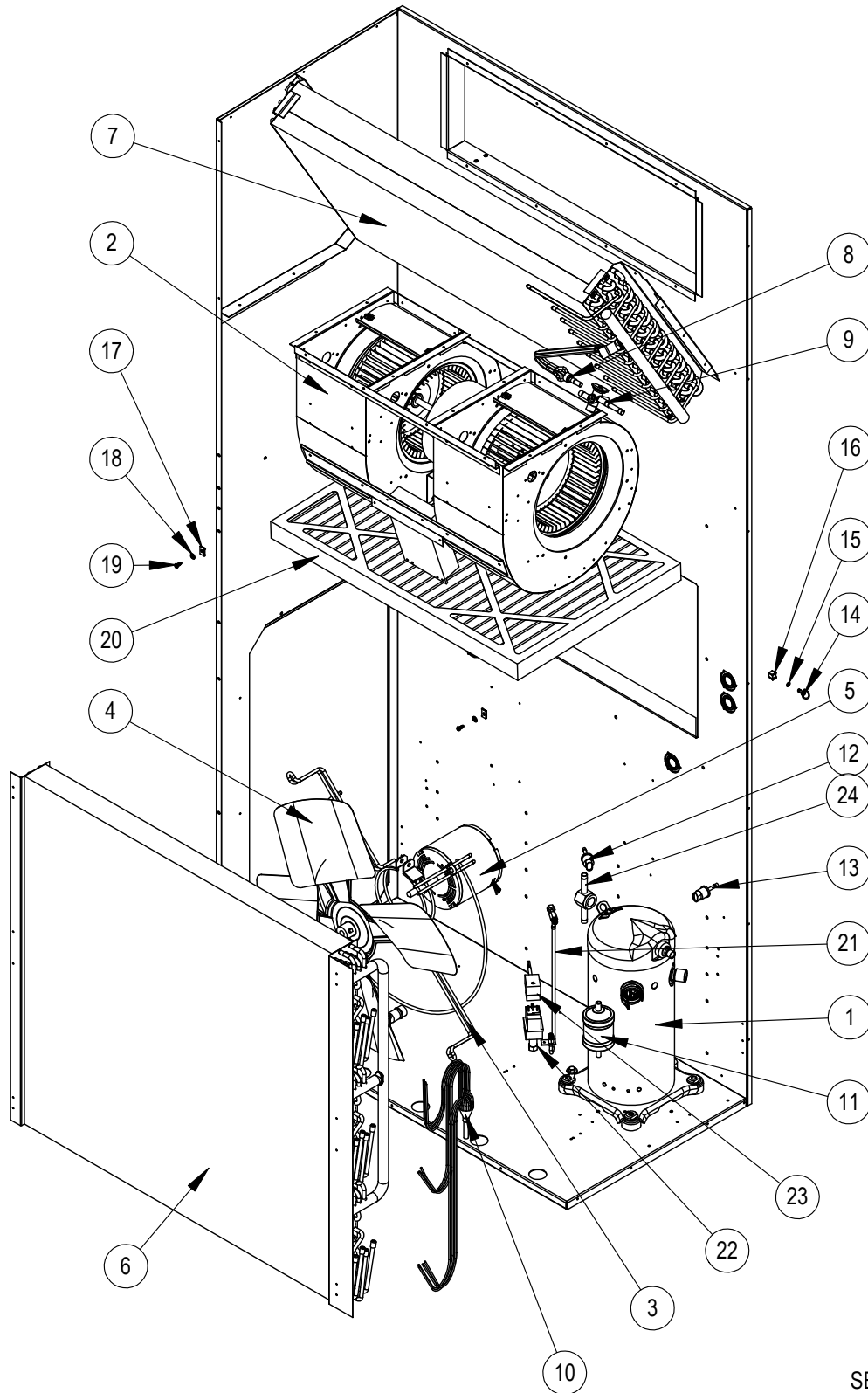
## CABINET COMPONENTS – Left Hand

Dwg. No.	Part Number	Description	W48L2PQ	W60L2PQ	W72L2PQ
1	S127-482	Base	X	X	X
2	S501-826-* ①	Right Side	X	X	X
3	S501-891-* ①	Left Side	X	X	X
4	105Y878	Support Angle	X	X	X
5	105Y877	Support Angle	X	X	X
6	147-046	Evap. Angle	X	X	X
7	543-172-* ①	Heater Access Cover	X	X	X
8	S515-246-* ①	Upper Front	X	X	X
9	507-307-* ①	Top	X	X	X
10	S533-257-* ①	Control Panel Cover	X	X	X
11	S153-218-* ①	Disconnect Access Door	X	X	X
12	S111Y034	Outlet Airframe Assembly	X	X	X
13	135-129	Heat Shield	X	X	X
14	118-094-* ①	Condenser Grille	X	X	X
15	118-086-* ①	Side Grille	2	2	2
16	113-150-* ①	Rain Flashing	X	X	X
17	509-251	Back	X	X	X
18	125-084	Fan Shroud	X	X	X
19	523-145	Drain Pan Assembly	X	X	X
20	553-600-* ①	Hood Mounting Door	X	X	X
21	553-641	Filter Door	X	X	X
22	521Y517	Condenser Partition	X	X	X
23	131Y164	Filter Tray	X	X	X
24	131-165	Filter Tray Angle	X	X	X
25	137-209	Fill Plate	X	X	X
26	120-494	Blower Partition	X	X	X
27	S132-281	Inner Control Panel Cover	X	X	X
28	113-140	Bottom Support Bracket	X	X	X
29	Control Panel Assembly	See Control Panel Assembly Drawing & Parts List	X	X	X

① Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, reference the following codes:

Beige	-X	Buckeye Gray	-4
White	-1		

# FUNCTIONAL COMPONENTS



SEXP-715

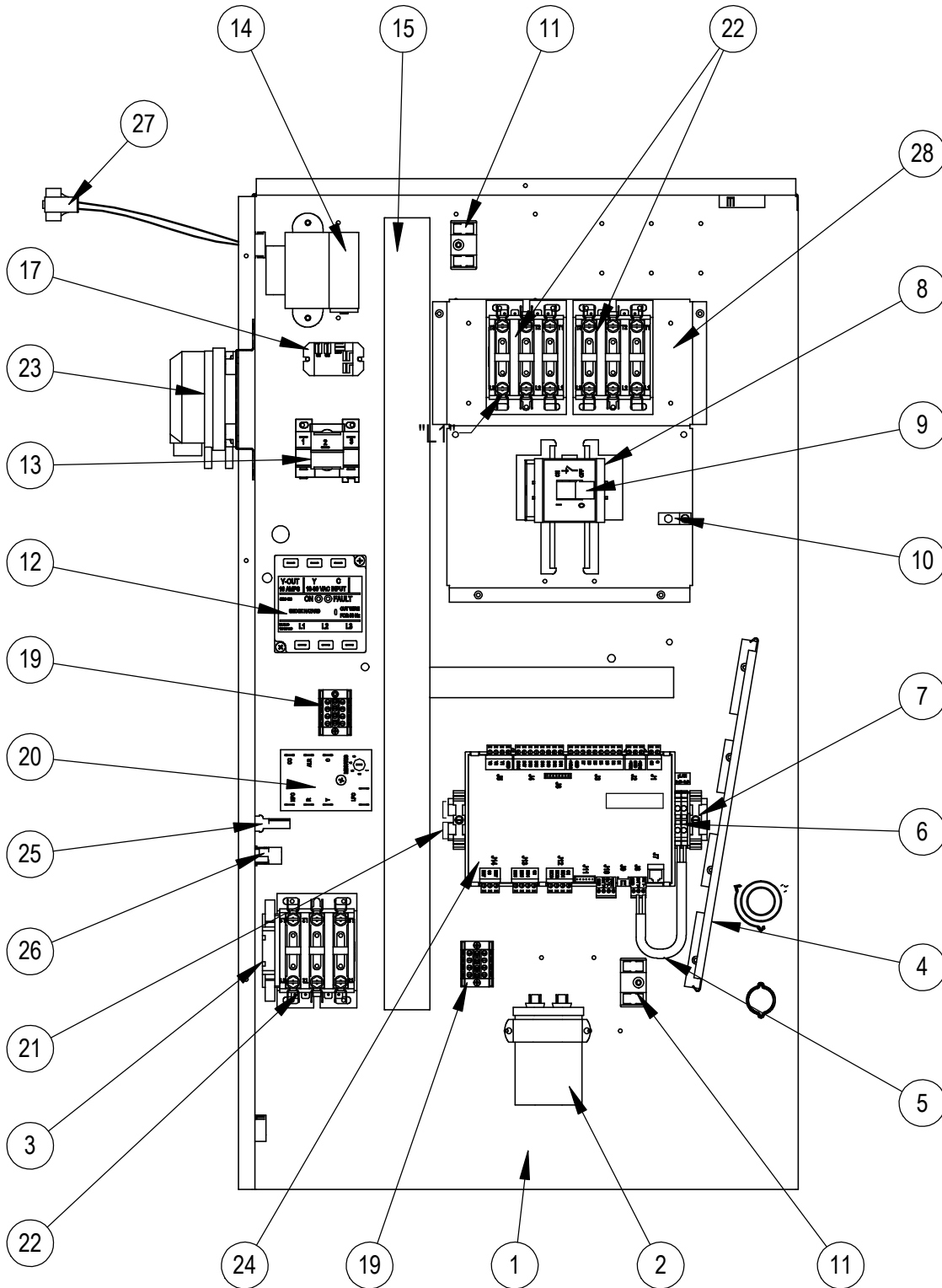
# FUNCTIONAL COMPONENTS

Dwg. No.	Part Number	Description	W48A2PQ	W48L2PQ	W60A2PQ	W60L2PQ	W72A2PQ	W72L2PQ
1	8000-420	Compressor	X	X				
1	8000-419	Compressor			X	X		
1	8000-418	Compressor					X	X
2	900-351	Blower Assembly	X	X	X	X		
2	900-273-0018	Blower Assembly					X	X
3	8200-049	Fan Motor Mount	X	X	X	X	X	X
4	5151-062	Fan Blade	X	X	X	X	X	X
5	8107-027	Condenser Motor	X	X	X	X	X	X
6	5051-197	Condenser Coil	X	X	X	X	X	X
6	5054-197	Condenser Coil – Coated	X	X	X	X	X	X
7	5060-208BX	Evaporator Coil	X	X	X	X	X	X
7	5062-208BX	Evaporator Coil – Coated	X	X	X	X	X	X
8	800-0462	Cooling Distributor	X	X				
8	800-0463	Cooling Distributor			X	X		
8	800-0464	Cooling Distributor					X	X
11	5201-022	Filter Drier	X	X	X	X	X	X
12	8406-142	High Pressure Switch (Flare)	X	X	X	X	X	X
13	8406-140	Low Pressure Switch (Flare)	X	X	X	X	X	X
14	1171-022	1/4" Turn Fastener	X	X	X	X	X	X
15	1171-024	1/4" Retainer Clip	X	X	X	X	X	X
16	1171-023	1/4" Receptacle	X	X	X	X	X	X
20	7004-027	Air Filter 2" Pleated MERV 8 ①	X	X	X	X	X	X
20	7004-049	Air Filter 2" Pleated MERV 11 ①	X	X	X	X	X	X
20	7004-016	Air Filter 1" Throw-Away	X	X	X	X	X	X
22	8406-112	Low Ambient Control	X	X	X	X	X	X
NS	3000-1230	Compressor Power Plug	X	X	X	X	X	X
NS	8605-021	Crankcase Heater ①	X	X	X	X	X	X
NS	8301-056	Temperature/Humidity Sensor	X	X	X	X	X	X
NS	5910-1940	Wire Assembly	X	X	X	X	X	X
NS	6031-009	Coremax Valve Core	2	2	2	2	2	2

NS – Not Shown

① – Optional

# CONTROL PANEL - Right Hand



SEXP-814

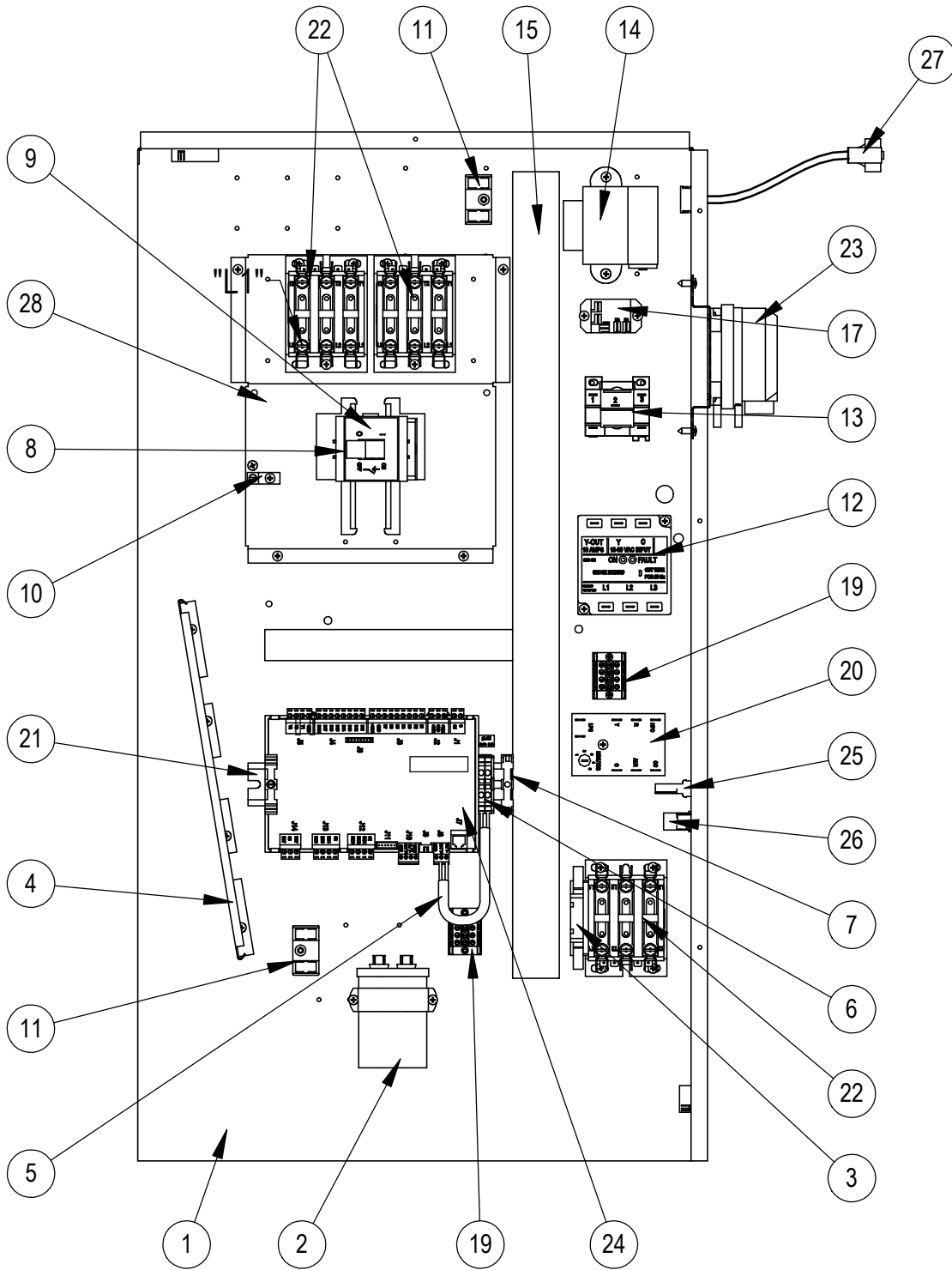


## CONTROL PANEL - Right Hand

Dwg. No.	Part Number	Description	W48A2PQ	W60A2PQ	W72A2PQ
1	517X380	Control Panel	X	X	X
2	8552-098	Capacitor 10 MFD 440V	X	X	X
3	8301-039	Aux Contact	X	X	X
4	135-122	Wire Shield	X	X	X
5	3020-004	12" 2 Conductor Shielded Cable	X	X	X
6	8611-150	Terminal Block for DIN Rail RS485	2	2	2
7	8611-144	End Clamp for DIN Rail	2	2	2
8	8615-069	3PH Cover Plate	X	X	X
9	8615-067	460V Disconnect	X	X	X
10	8611-006	Ground Terminal	X	X	X
11	8607-017	Terminal Block	2	2	2
12	8201-126	Phase Monitor	X	X	X
13	8201-032	Blower Relay	X	X	
14	8407-064	Transformer 575-24-75VA	X	X	X
15	8611-139-2600	1-1/2" x 1-1/2" Cable Duct 26"	X	X	X
16	8614-042	Fuse			2
17	8201-130	Compressor SPDT Relay	X	X	X
18	8614-058	Fuse Holder			X
19	8607-037	Terminal Block 4 Position	2	2	2
20	8201-088	Compressor Control Module	X	X	X
21	8611-145	35mm DIN Rail 8-1/2"	X	X	X
22	8401-002	Contactactor 3-Pole	3	3	3
23	910-1946	Filter Switch Assembly	X	X	X
24	8301-051-004	Micro PC - Small	X	X	X
25	3000-1506	Wire Assembly	X	X	X
26	3000-1472	Wire Assembly	X	X	X
27	910-1935	Evap Temp Sensor	X	X	X
28	127-321	Heater Base	X	X	X
NS	4207-401A	Wiring Diagram			X
NS	4207-402	Wiring Diagram	X	X	

NS – Not Shown

# CONTROL PANEL - Left Hand



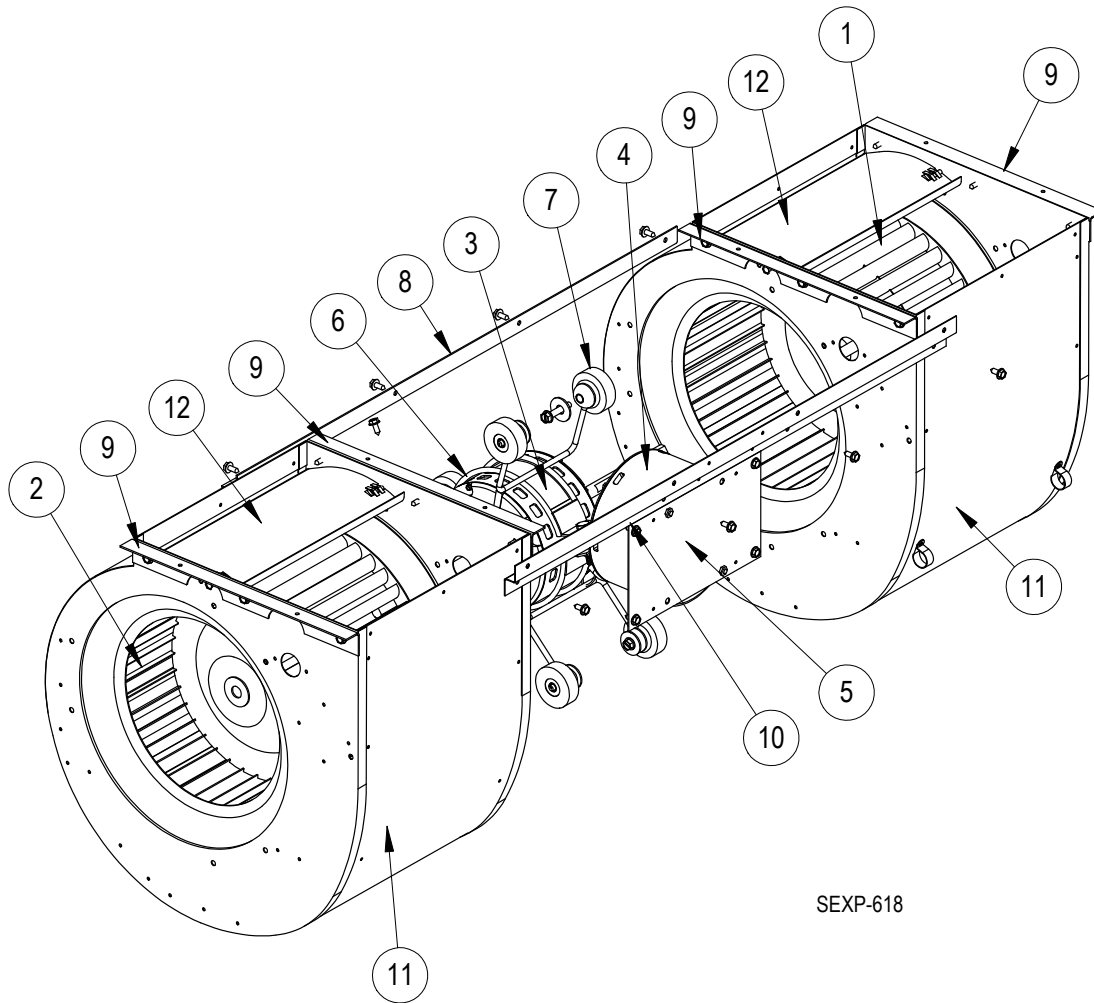
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## CONTROL PANEL – Left Hand

Dwg. No.	Part Number	Description	W48A2PQ	W60A2PQ	W72A2PQ
1	517Y380	Control Panel	X	X	X
2	8552-098	Capacitor 10 MFD 370V	X	X	X
3	8301-039	Aux Contact	X	X	X
4	135-122	Wire Shield	X	X	X
5	3020-004	12" 2 Conductor Shielded Cable	X	X	X
6	8611-150	Terminal Block for DIN Rail RS485	2	2	2
7	8611-144	End Clamp for DIN Rail	2	2	2
8	8615-069	3PH Cover Plate	X	X	X
9	8615-067	460V Disconnect	X	X	X
10	8611-006	Ground Terminal	X	X	X
11	8611-017	Terminal Block	2	2	2
12	8201-126	Phase Monitor	X	X	X
13	8201-032	Blower Relay	X	X	
14	8407-064	Transformer 575-24-75VA	X	X	X
15	8611-139-2600	1-1/2" x 1-1/2" Cable Duct 26"	X	X	X
16	8614-042	Fuse			2
17	8201-130	Compressor SPDT Relay	X	X	X
18	8614-058	Fuse Holder			X
19	8607-037	Terminal Block 4 Position	2	2	2
20	8201-088	Compressor Control Module	X	X	X
21	8611-145	35mm DIN Rail 8-1/2"	X	X	X
22	8401-002	Contactors 3-Pole 40 Amp	3	3	3
23	910-1946	Filter Switch Assembly	X	X	X
24	8301-051-004	Micro PC - Small	X	X	X
25	3000-1506	Wire Assembly	X	X	X
26	3000-1472	Wire Assembly	X	X	X
27	910-1935	Evap Temp Sensor	X	X	X
28	127-321	Heater Base	X	X	X
NS	4207-401A	Wiring Diagram			X
NS	4207-402	Wiring Diagram	X	X	

NS – Not Shown

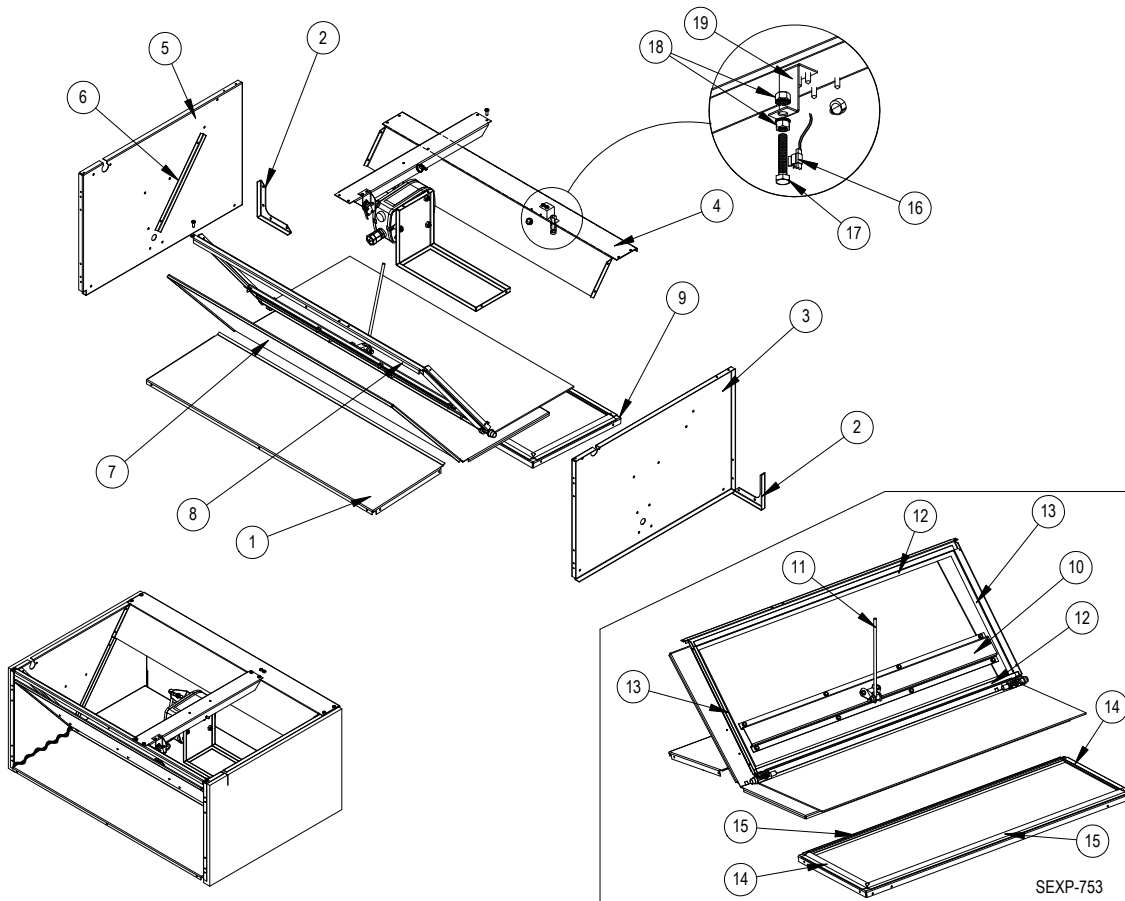
# BLOWER ASSEMBLY



SEXP-618

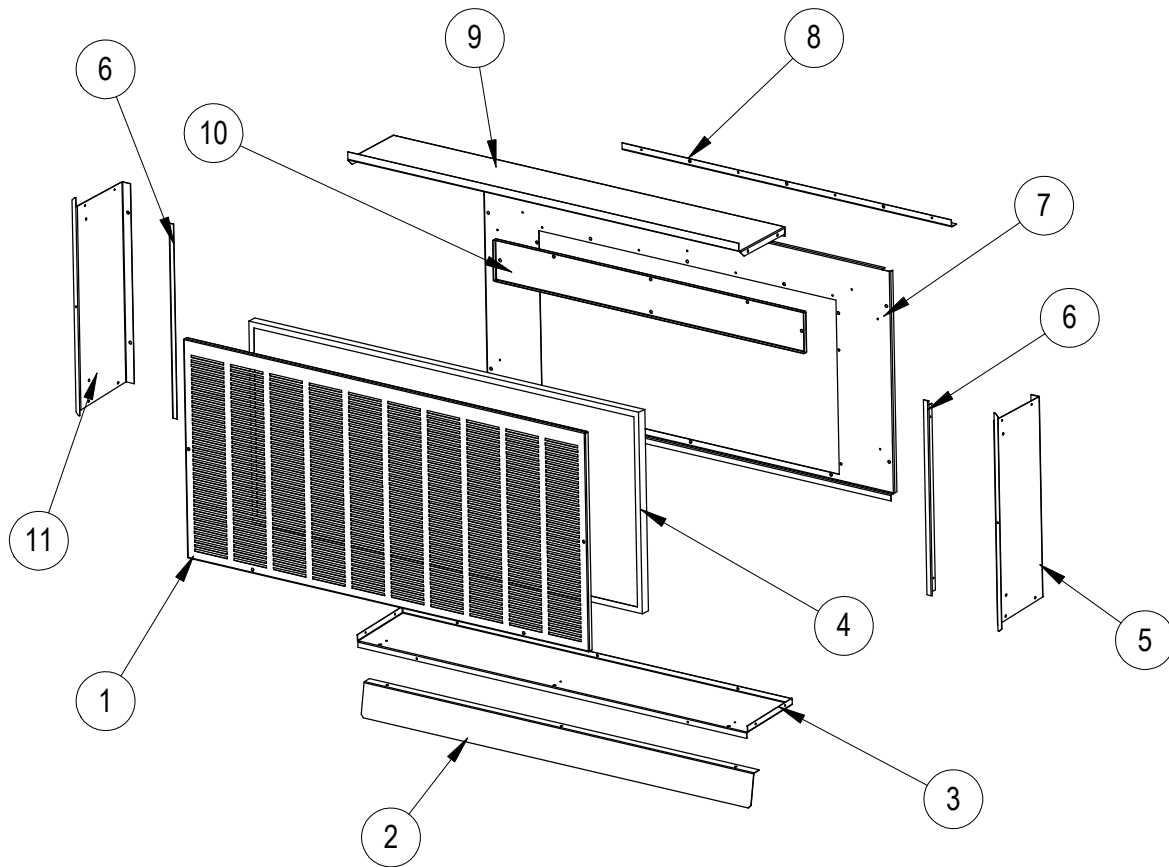
Dwg. No.	Part Number	Description	900-273-0018	900-351
1	5152-011	10-Inch Wheel (CW)	X	X
2	5152-012	10-Inch Wheel (CCW)	X	X
3	S8107-017-0137	3/4 HP Programmed Motor	X	
3	8106-064	3/4 HP Motor		X
5	112-344	Blower Motor Control Bracket	X	
6	8200-040	Motor Mount	X	X
7	5451-011	Grommets	6	6
8	105-881	Back Brace	X	X
9	105-880	Side Angle	4	4
10	103-389	Front Brace	X	X
11	151-101	Housing	2	2
12	144-166	Diffuser	2	2

# FREECOOLING COMPONENTS



Dwg No.	Part Number	Description
1	137-734	Lower Front Partition
2	113-526	Corner Bracket
3	S101X852	Right Side
4	S137-735	Upper Rear Partition
5	S101Y852	Left Side
6	S105-1341	Blade Seal Angle
7	S139-323	Blade
8	S137-733	Upper Front Partition
9	S137-736	Lower Rear Partition
10	141-426	Blade Support
11	8602-077	1/4 x 9" Rod
12	1921-067-2909	29-9/16" Damper Blade Seal
13	1921-067-1300	13" Damper Blade Seal
14	1921-067-1011	10-11/16" Damper Blade Seal
15	1921-067-2906	29-3/8" Damper Blade Seal
16	8408-044	Defrost Support 10K Ohm Curve J w/ 5/16" Clip
17	1012-052	Hex Head Bolt 5/16 - 18x1-3/4" 0.0005 Zinc w/ Yellow Chromate
18	1012-210	5/16" Nut 0.0005 Zinc w/ Yellow Chromate
19	113-541	Sensor Bracket

# FREECOOLING AIR HOOD



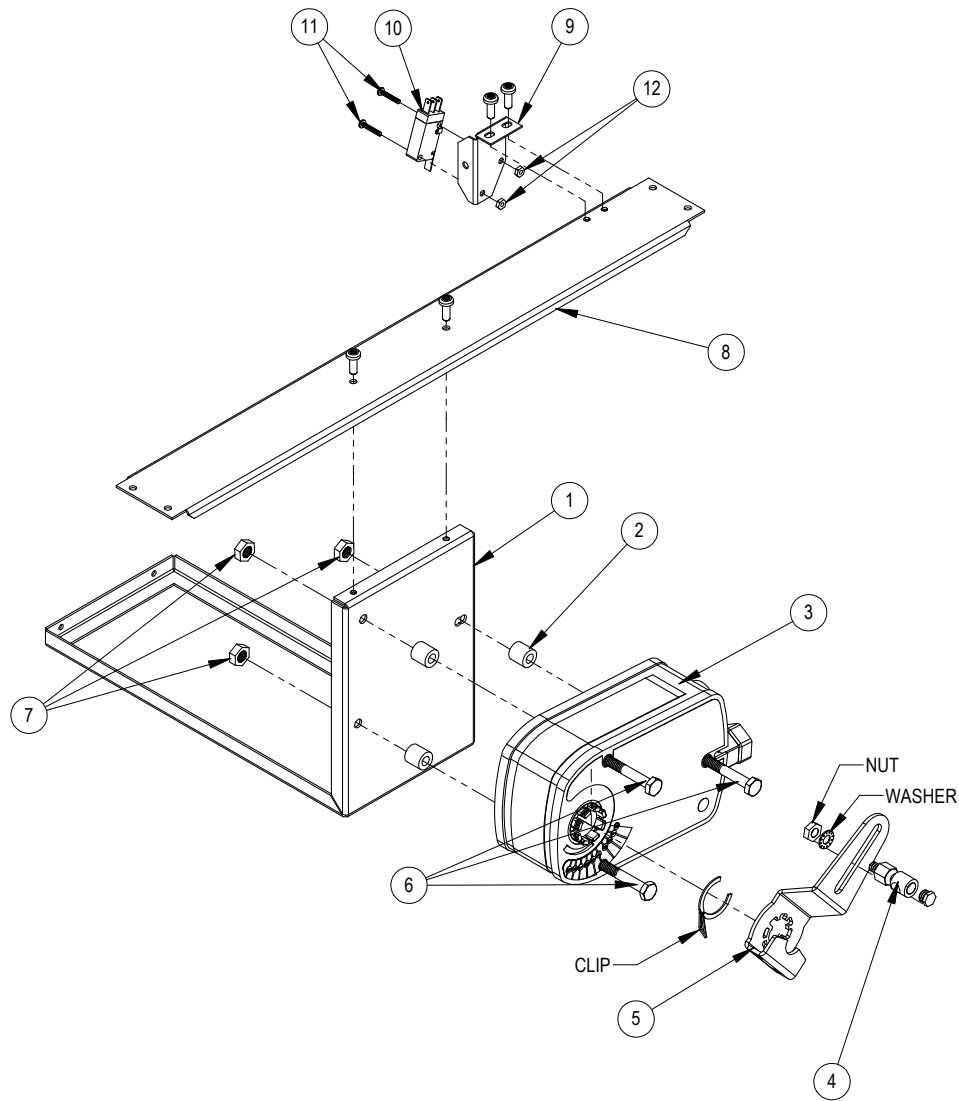
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Dwg. No.	Part Number	Description
1	115-283-* ①	Hooded Front Door
2	113-484-* ①	Bottom Divider Bracket
3	S127-489-* ①	Hood Bottom
4	7003-062	Mist Filter 40-1/4" x 17-7/8" x 7/8"
5	S101-870-* ①	Right Side
6	105-1342	Side Filter Angle
7	553-600-* ①	Hood Mounting Door
8	105-1343	Filter Door Angle
9	S107-344-* ①	Hood Top
10	553-596	Filter Door
11	S101-860-* ①	Left Side
	S920-0232	Complete Hood Assembly – Beige
	S920-0233	Complete Hood Assembly – White
	S920-0234	Complete Hood Assembly – Gray

① Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, reference the following codes:

Beige	-X	Buckeye Gray	-4
White	-1		

# FREECOOLING DAMPER MOTOR



SEXP-754

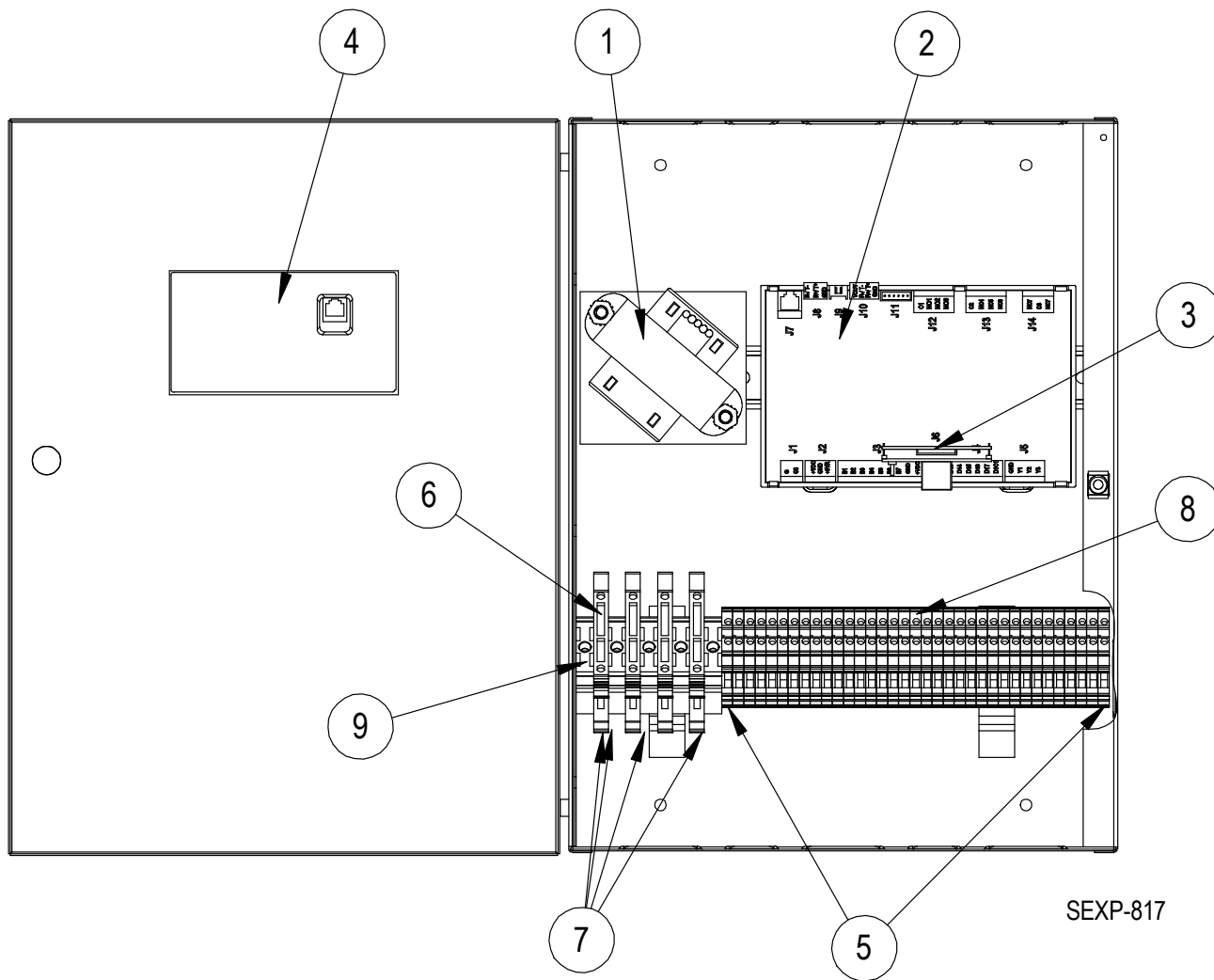
Dwg.  
No.

Part Number

Description

Dwg. No.	Part Number	Description
1	141-428	Actuator Support Plate
2	5451-029	Nylon Sleeve 0.257" ID x 0.5" Long
3	8602-075	Direct Coupled Actuator
4	8602-037	Damper Motor M7415B1004
5	8602-078	Belimo Actuator Crank Arm 1/2"
6	1012-174	1/4" - 20x3 - 1/4 Hex Cap Screws
7	1012-201	1/4-20 Steel Keps Hex Nut Zinc
8	141-427	Actuator Support Bar
9	113-525	Blade Switch Bracket
10	8406-138	Lever Switch SPDT Sealed Pilot Duty
11	1012-178	4-40 x 5/8" Phillips Pan Head Machine Screw, Zinc Plated
12	1012-231	4-40 Steel Keps Hex Nut Zinc

# BARD-LINK™ PLC LEAD/LAG CONTROLLER





# BARD-LINK™ PLC LEAD/LAG CONTROLLER

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Dwg. No.	Part Number	Description	LC5000
1	8407-067	Transformer	X
2	8301-051-004	Micro PC – Small, programmed for LC5000	X
3	8301-052-002	Web Card (Ethernet 1BaseT card for SNMP, FTP, HTTP, DHCP, DNS, BACnet over IP and BACnet Ethernet)	X
4	8301-053	Panel mounting display flush, pGDEvolution 132x64, black buttons with cable	X
5	8607-052	Grounded Terminal Block	2
6	8614-059	1.0 Amp Fuse	2
7	8607-039	Fused Terminal Block	2
8	8607-038	Terminal Block	31
9	8611-144	End Clamp (for din rail)	7
NS	8301-055	EMI Ferrite Filter	2
NS	8301-058	Remote Temperature Sensor ①	X
NS	8403-079	Remote Temperature/Humidity Sensor	X
NS	8301-059	TEC-EYE™ (Service Tool), 5 ft. telephone cable	X
NS	8403-077	pAD Single Unit Controller ①	X
NS	8620-243	pAD Single Unit Controller and TEC-EYE™ Kit ①	X

NS – Not Shown

① – Optional