
REPLACEMENT PARTS MANUAL

Q-TEC™ Series Packaged Heat Pump

Models:

QW2S3DA QW3S3DA QW4S3DA QW5S3DA
QW2S3DB QW3S3DB QW4S3DB QW5S3DB
QW2S3DC QW3S3DC QW4S3DC QW5S3DC

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General Notes

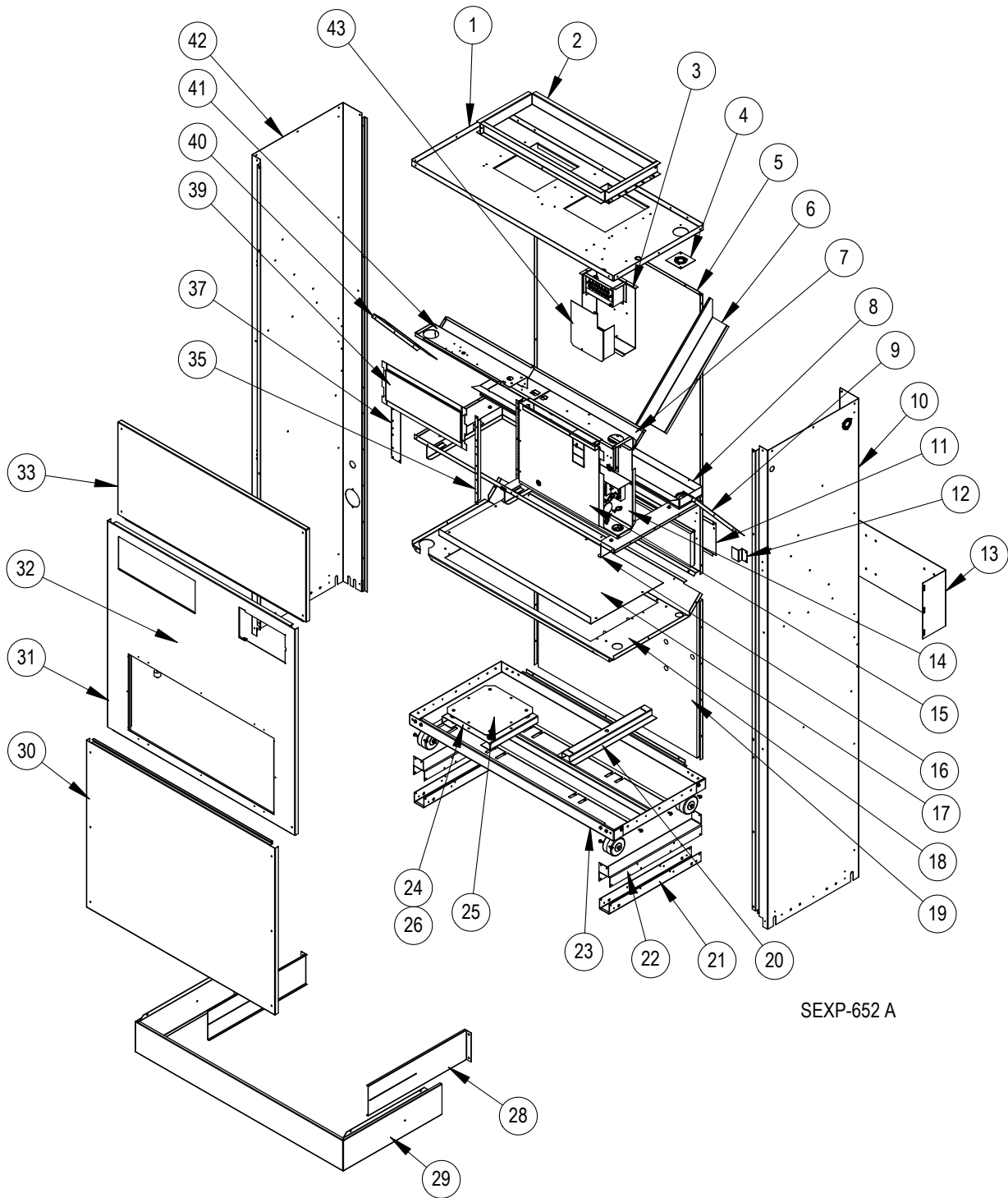
- Revised and/or additional pages may be issued from time to time.
- A complete and current manual consists of pages shown in the following contents section.



Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
www.bardhvac.com

Manual: 2110-1558F
Supersedes: 2110-1558E
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CABINET COMPONENTS



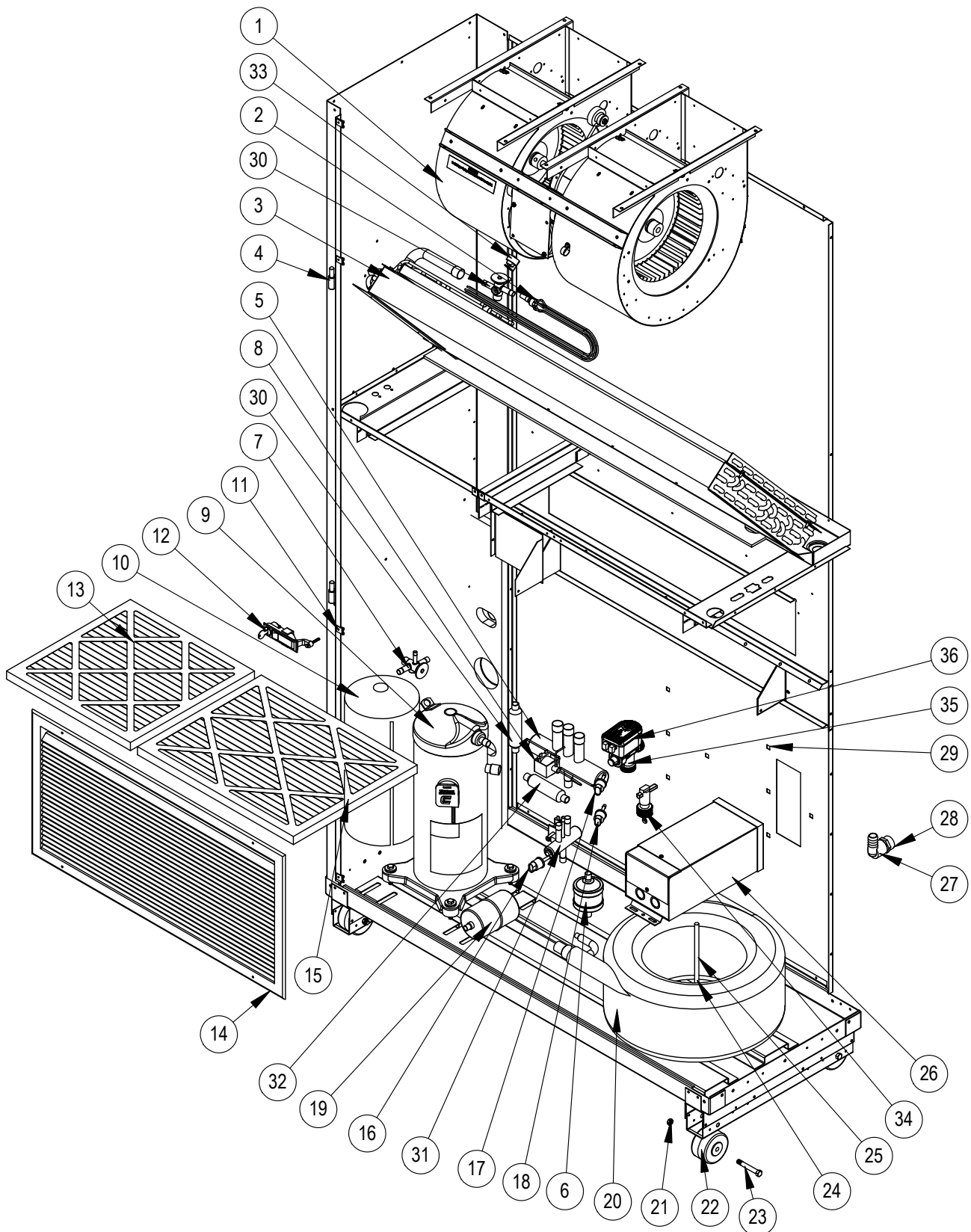
SEXP-652 A

CABINET COMPONENTS

Drawing No.	Part No.	Description	QW2S3DA, DB, DC	QW4S3DA, DB, DC
			QW3S3DA, DB, DC	QW5S3DA, DB, DC
1	S507-279	Top Assembly	X	
1	S507-278	Top Assembly		X
2	111-142	Outlet Duct Flange	2	
2	111-138	Outlet Duct Flange		2
3	117-285	Low Voltage Box Assembly	X	X
4	136-359	T.K.O. Plate	X	X
5	509-231	Back Assembly	X	
5	509-230	Back Assembly		X
6	134-154	Wire Channel	X	X
7	534-191	Evaporator Coil Shield - Right	X	
7	534-195	Evaporator Coil Shield - Right		X
8	523-104	Evaporator Drain Pan Assembly	X	
8	523-105	Evaporator Drain Pan Assembly		X
9	140X277	Right Evaporator Support	X	X
10	501-557-*	Ride Side Assembly	X	X
11	542-054	Fresh Air Blank-Off Plate Assembly	X	X
12	103-443	Door Latch Offset	X	X
13	113-289	Wall Mounting Bracket	2	2
14	See Pages 7 & 9	Control Panel Components	X	X
15	S133-315	Circuit Breaker Door Inner (230V Models)	X	X
15	S133-316	Disconnect Door (460V Models)	X	X
16	919-0011	Filter Partition Assembly	X	
16	919-0012	Filter Partition Assembly		X
17	537-584	Condenser Blank-Off Plate	X	X
18	521-442	Condenser Partition Assembly	X	
18	521-439	Condenser Partition Assembly		X
19	509-233	Lower Back with Cage Nuts	X	
19	509-223	Lower Back with Cage Nuts		X
20	140-026	Water Coil Hold Down (230V Models)	X	X
20	140-278	Water Coil Hold Down (460V Models)	X	X
21	140-276	Lower Roller Support	2	2
22	140-280	Upper Roller Support	2	2
23	S127-384-X	Lower Base Assembly	X	
23	S127-379-X	Lower Base Assembly		X
24	141-368	Compressor Support	X	X
25	140-369	Compressor Support Plate	X	X
26	5451-018	Motor Mount Grommet	X	X
28	135-258-6	Base Trim Extension	2	2
29	535-253-6	Base Trim Assembly with Extension	X	
29	535-259-6	Base Trim Assembly with Extension		X
30	552-332-*	Condenser Door Assembly	X	
30	553-470-*	Condenser Door Assembly		X
31	553-468-*	Filter Door Assembly w/Circuit Breaker Door	X	
31	553-469-*	Filter Door Assembly w/Circuit Breaker Door		X
32	153-336-*	Circuit Breaker Door		X
33	S552-331-*	Blower Door Assembly	X	
33	S552-333-*	Blower Door Assembly		X
35	104-1096	Right Thermostat Support Angle	X	X
37	104-1157	Left Thermostat Support Angle	X	X
39	See Page 13	Thermostat Mounting Plate	X	X
40	140Y277	Left Evaporator Support	X	X
41	534-190	Left Evaporator Coil Shield	X	X
42	501-573-*	Left Side Assembly	X	X
43	133-201	Low Voltage Box Cover	X	X

* Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, reference the following codes: Beige -X, White -1, Buckeye Gray -4, Vinyl/Slate Finish -6, Vinyl/Platinum Finish -7

FUNCTIONAL COMPONENTS



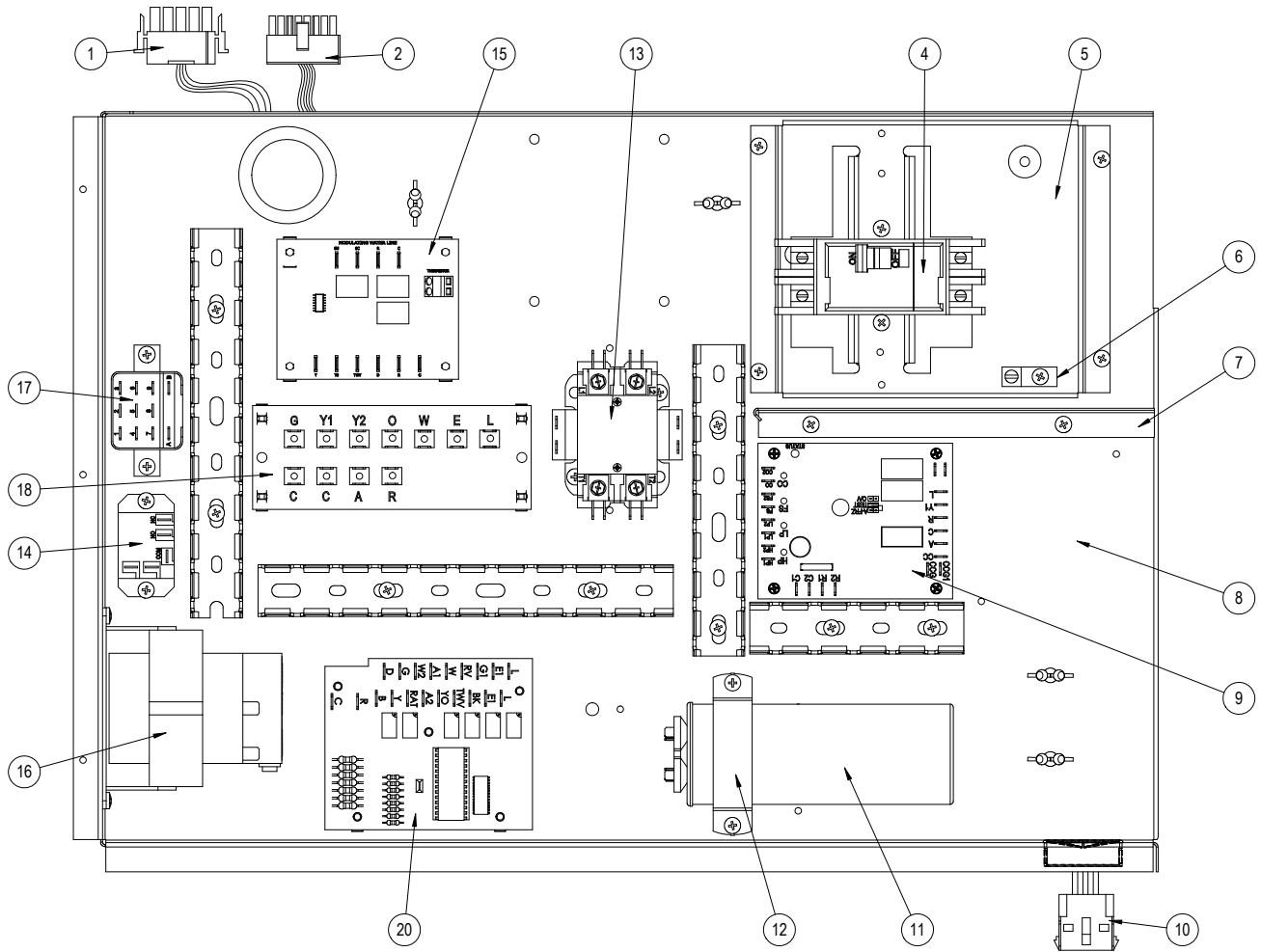
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FUNCTIONAL COMPONENTS

Drawing No.	Part No.	Description	QW2S3DA	QW2S3DB	QW2S3DC	QW3S3DA	QW3S3DB	QW3S3DC	QW4S3DA	QW4S3DB	QW4S3DC	QW5S3DA	QW5S3DB	QW5S2DC
1	S900-380-001	Blower Assembly	X	X	X									
1	S900-381-001	Blower Assembly				X	X	X						
1	S900-382-001	Blower Assembly							X	X	X			
1	S900-382-002	Blower Assembly										X	X	X
2	5625-007	Distributor Cooling	X	X	X	X	X	X						
2	5625-008	Distributor Cooling							X	X	X			
2	5625-010	Distributor Cooling										X	X	X
3	917-0086BX	Evaporator Coil	X	X	X	X	X	X						
3	917-0166BX	Evaporator Coil							X	X	X			
3	917-0089BX	Evaporator Coil										X	X	X
4	5400-005	Hinge	2	2	2	2	2	2	2	2	2	2	2	2
5	5650-038	Reversing Valve with 24V Solenoid Coil	X	X	X									
5	5650-039	Reversing Valve with 24V Solenoid Coil				X	X	X						
5	5650-040	Reversing Valve with 24V Solenoid Coil							X	X	X	X	X	X
6	5220-013	Discharge Muffler	X	X	X	X	X	X	X	X	X	X	X	X
7	5651-191	TXV	X	X	X									
7	5651-210	TXV				X	X	X						
7	5651-211	TXV							X	X	X			
7	5651-212	TXV										X	X	X
8	5650-042	Reversing Valve Solenoid, Red Casing (Ranco)	X	X	X	X	X	X	X	X	X	X	X	X
8	5650-043	Reversing Valve Solenoid, Black Casing (Wilspec)	X	X	X	X	X	X	X	X	X	X	X	X
8	5650-046	Reversing Valve Solenoid, Black Casing (San Hua)	X	X	X	X	X	X	X	X	X	X	X	X
9	8000-394	Compressor	X											
9	8000-396	Compressor		X										
9	8000-398	Compressor			X									
9	8000-379	Compressor				X								
9	8000-380	Compressor					X							
9	8000-381	Compressor						X						
9	8000-382	Compressor							X					
9	8000-383	Compressor								X				
9	8000-384	Compressor									X			
9	8000-385	Compressor										X		
9	8000-386	Compressor											X	
9	8000-387	Compressor												X
10	8002-012	Sound Cover	X	X	X	X	X	X						
10	8002-013	Sound Cover							X	X	X	X	X	X
11	1012-315	*U* Clip Fastener	8	8	8	8	8	8	8	8	8	8	8	8
12	1171-049	Keypad/Circuit Breaker Door	X	X	X	X	X	X	X	X	X	X	X	X
13	7004-034	Air Filter 2 Pleated (16 x 16 x 2)	X	X	X	X	X	X	X	X	X	X	X	X
14	7051-034	Return Air Grille (for Beige & Buckeye Gray Units)	X	X	X	X	X	X						
14	7051-061	Return Air Grille (for Vinyl Units)	X	X	X	X	X	X						
14	7051-039	Return Air Grille (for Beige & Buckeye Gray Units)							X	X	X	X	X	X
14	7051-063	Return Air Grille (for Vinyl Units)							X	X	X	X	X	X
15	7004-035	Air Filter 2 Pleated (16 x 20 x 2)	X	X	X	X	X	X						
15	7004-025	Air Filter 2 Pleated (16 x 25 x 2)							X	X	X	X	X	X
16	1804-0327	High Pressure Switch	X	X	X	X	X	X	X	X	X	X	X	X
17	1804-0496	Low Pressure Switch 75 PSIG	X	X	X	X	X	X	X	X	X	X	X	X
18	1804-0499	Low Pressure Switch 55 PSIG	X	X	X	X	X	X	X	X	X	X	X	X
19	5201-019	Filter/Drier	X	X	X	X	X	X						
19	5201-020	Filter/Drier							X	X	X	X	X	X
20	917-0133	Water Coil Assembly	X	X	X	X	X	X						
20	917-0138	Water Coil Assembly (Optional Cupronickel Coil)	X	X	X	X	X	X						
20	917-0125	Water Coil Assembly							X	X	X			
20	917-0139	Water Coil Assembly (Optional Cupronickel Coil)							X	X	X			
20	917-0074	Water Coil Assembly										X	X	X
20	917-0064	Water Coil Assembly (Optional Cupronickel Coil)										X	X	X
21	1012-224	Nut - Locking	4	4	4	4	4	4	4	4	4	4	4	4
22	1171-035	Wheel	4	4	4	4	4	4	4	4	4	4	4	4
23	1012-129	Bolt - Shoulder	4	4	4	4	4	4	4	4	4	4	4	4
24	1012-226	Cage Nut	X	X	X	X	X	X	X	X	X	X	X	X
25	1012-167	3/8 x 7-1/2 Hex Head Bolt	X	X	X	X	X	X						
25	1012-168	3/8 x 9 Hex Head Bolt							X	X	X			
25	1012-169	3/8 x 10 Hex Head Bolt										X	X	X
26	8407-058	Stepdown Transformer 1.0 KVA			X			X			X			
26	8407-003	Stepdown Transformer 1.5 KVA (Units w/ERV)			X			X						
26	8407-004	Stepdown Transformer 2.0 KVA (Units w/ERV)									X			X
26	8407-003	Stepdown Transformer 1.5 KVA												X
27	6094-007	Barbed Drain Fitting	X	X	X	X	X	X	X	X	X	X	X	X
28	6093-011	3/4 Male Adapter	X	X	X	X	X	X	X	X	X	X	X	X
29	1012-218	1/4 Cage Nut	6	6	6	6	6	6	6	6	6	6	6	6
30	5651-200	TXV	X	X	X									
30	5651-210	TXV				X	X	X						
30	5651-211	TXV							X	X	X			
30	5651-212	TXV										X	X	X
31	5650-051	Dehum. Valve, 4-Pipe	X	X	X	X	X	X	X	X	X	X	X	X
32	5651-219	Check Valve	2	2	2	2	2	2	2	2	2	2	2	2
33	8408-048	Freeze Protect Thermostat	X	X	X	X	X	X	X	X	X	X	X	X
34	910-1931	Flow Switch Assembly	X	X	X	X	X	X	X	X	X	X	X	X
35	8603-042	3-Way Valve	X	X	X	X	X	X	X	X	X	X	X	X
36	8603-043	Actuator	X	X	X	X	X	X	X	X	X	X	X	X
NS	1818-064	DOR TO Valve		X								X		
NS	1818-065	1" Threaded TO Valve			X			X			X			X
NS	6031-009	Coremax Valve Core	X	X	X	X	X	X	X	X	X	X	X	X
NS	8603-046	1-3/16" OD x 13/16" ID - Valve Connection Gasket	3	3	3	3	3	3	3	3	3	3	3	3

NS = Not Shown

CONTROL PANEL COMPONENTS

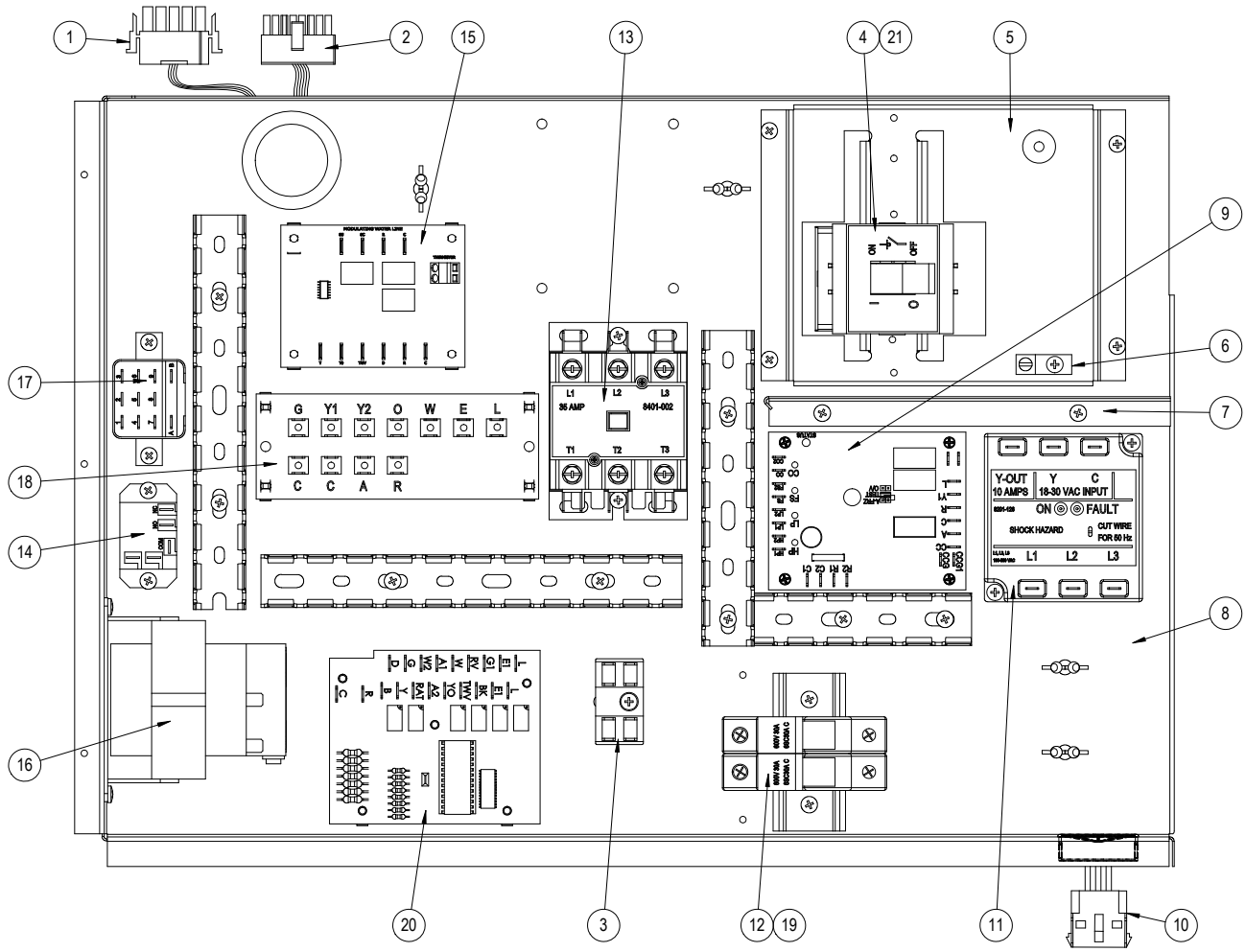


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CONTROL PANEL COMPONENTS

Drawing No.	Part No.	Description	QW2S3DA	QW3S3DA	QW4S3DA	QW5S3DA
1	3000-1331	Wire Assembly (Blower Power)	X	X	X	X
2	3000-1677	Wire Assembly (Blower Control)	X	X	X	X
4	8615-037	Circuit Breaker 2 Pole 30A	X			
4	8615-055	Circuit Breaker 2 Pole 40A		X		
4	8615-040	Circuit Breaker 2 Pole 50A			X	
4	8615-041	Circuit Breaker 2 Pole 60A				X
5	126-550	Circuit Breaker Base	X	X	X	X
6	8611-006	Terminal	X	X	X	X
7	117-242	Circuit Breaker Box Partition	X	X	X	X
8	117-421	Control Panel	X	X	X	X
9	8201-140	Compressor Control Module	X	X	X	X
10	3000-1349	Wire Assembly (Vent Control)	X	X	X	X
11	8552-086	Capacitor 35 - 370V	X			
11	8552-035	Capacitor 40 - 370V		X		
11	8552-095	Capacitor 30 - 370V			X	
11	8552-096	Capacitor 40 - 440V				X
12	8550-006	Capacitor Bracket	X	X	X	
12	8550-007	Capacitor Bracket				X
13	8401-025	Contactors	X	X	X	X
14	8201-130	Relay, SPDT	X	X	X	X
15	8201-168	Water Modulation Control Board	X	X	X	X
16	8407-065	Transformer 208/240 - 24VAC 75 VA	X	X	X	X
17	8201-159	Relay, DPDT	X	X	X	X
18	8607-029	Terminal Strip	X	X	X	X
20	8201-113	Dehum Logic Board	X	X	X	X
NS	4113-108	Wiring Diagram	X	X	X	X

CONTROL PANEL COMPONENTS

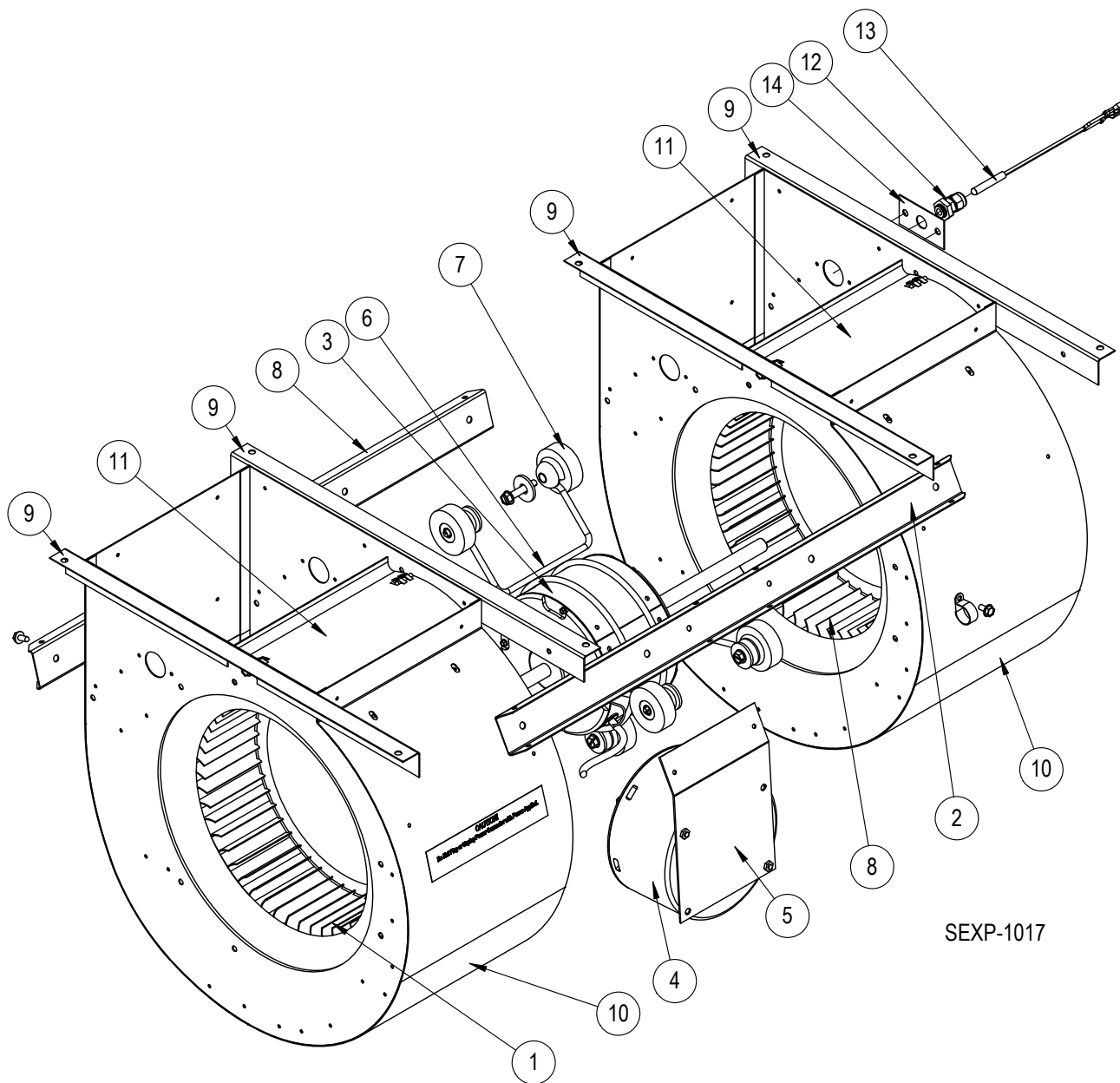


SEXP-1016

CONTROL PANEL COMPONENTS

Drawing No.	Part No.	Description	QW2S3DB	QW2S3DC	QW3S3DB	QW3S3DC	QW4S3DB	QW4S3DC	QW5S3DB	QW5S3DC
1	3000-1331	Wire Assembly (Blower Power)	X	X	X	X	X	X	X	X
2	3000-1677	Wire Assembly (Blower Control)	X	X	X	X	X	X	X	X
3	8607-017	Terminal Block		X		X		X		X
4	8615-054	Circuit Breaker 2 Pole 20A	X							
4	8615-052	Circuit Breaker 2 Pole 30A			X					
4	8615-042	Circuit Breaker 2 Pole 35A					X			
4	8615-043	Circuit Breaker 2 Pole 40A							X	
4	8615-095	460V Toggle Disconnect		X		X		X		X
5	127-549	Circuit Breaker Base		X		X		X		X
5	127-550	Circuit Breaker Base	X		X		X		X	
6	8611-006	Terminal	X	X	X	X	X	X	X	X
7	117-242	Circuit Breaker Box Partition	X	X	X	X	X	X	X	X
8	117-421	Control Panel	X	X	X	X	X	X	X	X
9	8201-140	Compressor Control Module	X	X	X	X	X	X	X	X
10	3000-1349	Wire Assembly (Vent Control)	X	X	X	X	X	X	X	X
11	8201-126	3 Phase Line Monitor	X	X	X	X	X	X	X	X
12	8614-058	Fuse Block		X		X		X		X
13	8401-002	Contactor	X	X	X	X	X	X	X	X
14	8201-130	Relay, SPDT	X	X	X	X	X	X	X	X
15	8201-168	Water Modulation Control Board	X	X	X	X	X	X	X	X
16	8407-065	Transformer 208/240 - 24VAC 75 VA	X		X		X		X	
16	8407-050	Transformer 480/24VAC 75 VA		X		X		X		X
17	8201-159	Relay, DPDT	X	X	X	X	X	X	X	X
18	8607-029	Terminal Strip	X	X	X	X	X	X	X	X
19	8614-047	Fuse 3.2A		2		2		2		
19	8614-046	Fuse 5A (Units with ERV)		2		2				
19	8614-042	Fuse 7A (Units with ERV)						2		2
19	8614-046	Fuse 5A								2
20	8201-113	Dehum Logic Board	X	X	X	X	X	X	X	X
21	8615-069	Switch Cover Plate		X		X		X		X
NS	4113-208	Wiring Diagram	X		X		X		X	
NS	4113-308	Wiring Diagram		X		X		X		X

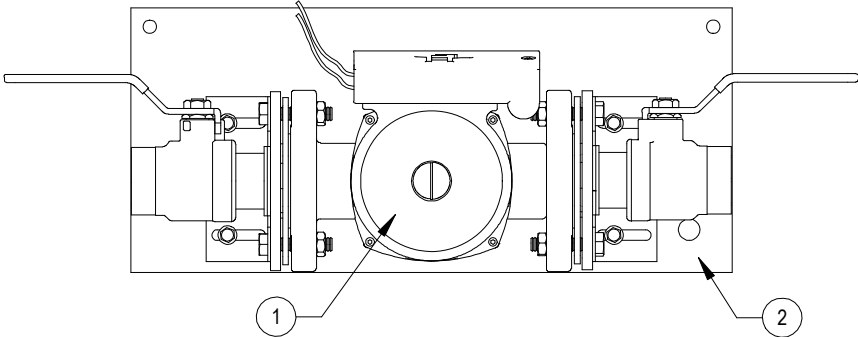
BLOWER ASSEMBLY COMPONENTS



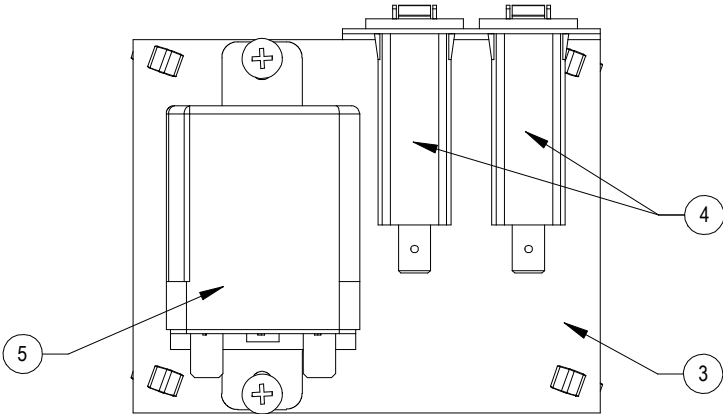
BLOWER ASSEMBLY COMPONENTS

Drawing No.	Part No.	Description	900-380-001	900-381-001	900-382-001	900-382-002
1	5152-096	Blower Wheel	X	X		
1	5152-011	Blower Wheel			X	X
2	5152-072	Blower Wheel	X	X		
2	5152-012	Blower Wheel			X	X
3	S8105-060-0198	1/3 HP Programmed Motor	X			
3	S8106-052-0199	1/2 HP Programmed Motor		X		
3	S8107-017-0200	3/4 HP Programmed Motor			X	
3	S8107-017-0201	3/4 HP Programmed Motor				X
4	C8105-060-0198	Programmed Motor Control Only	X			
4	C8106-052-0199	Programmed Motor Control Only		X		
4	C8107-017-0200	Programmed Motor Control Only			X	
4	C8107-017-0201	Programmed Motor Control Only				X
5	113-380	Blower Motor Control Bracket	X	X	X	X
6	8200-040	Dual Motor Mount	X	X	X	X
7	5451-011	Grommet	6	6	6	6
8	165-572	Blower Support Channel	2	2	2	2
9	104-980	Blower Angle	4	4	4	4
10	151-117	Blower Housing	2	2		
10	151-101	Blower Housing			2	2
11	144-167	Diffuser	2	2		
11	144-166	Diffuser			2	2
12	8611-099	LTF 7 Fitting	X	X	X	X
13	8408-040	Inlet Thermistor	X	X	X	X
14	142-234	Sensor Plate	X	X	X	X

PUMP MODULE COMPONENTS



PUMP ASSEMBLY



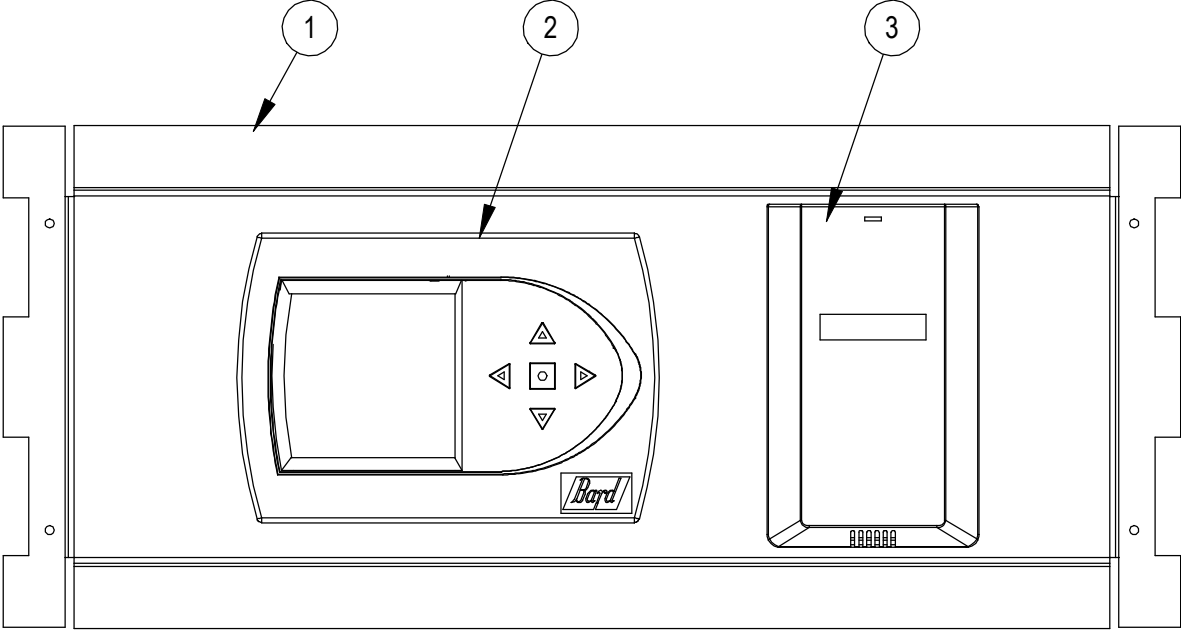
RELAY ASSEMBLY

SEXP-574

PUMP MODULE COMPONENTS

Drawing No.	Part No.	Description	QW2S2DA, -DB, -DC	QW3S2DA, -DB, -DC	QW4S2DA, -DB, -DC	QW5S2DA, -DB, -DC
1	8300-008	Circulating Pump UPS15-42F	X	X		
1	8300-009	Circulating Pump UPS26-99FC			X	X
2	141-346	Water Pump Bracket	X	X	X	X
3	113-399	Pump Relay Bracket	X	X	X	X
4	8614-036	Mini Circuit Breaker 3 Amp	2	2	2	2
5	8201-048	Relay DPDT	X	X	X	X

OPTIONAL CLIMATE CONTROLS



SEXP-560

OPTIONAL CLIMATE CONTROLS

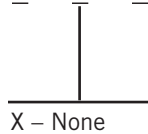
Drawing No.	Part No.	Description	ALL UNITS			
			Option X	Option D	Option H	Option K
1	S127-313-*	Thermostat Plate	X			
1	S127-308-*	Thermostat Plate		X		
1	S127-372-*	Thermostat Plate			X	
1	S127-409-*	CO ₂ Plate				X
2	8403-060	Electronic/Programmable Manual/Auto Changeover		X	X	
3	8403-067	CO ₂ Sensor with Relay			X	X
NS	4115-100	Wiring Diagram		X		
NS	4115-101	Wiring Diagram			X	
NS	4115-102	Wiring Diagram	X			
NS	4115-105	Wiring Diagram				X
NS	8607-021	Terminal Strip 8 Terminal	X			
NS	8607-029	Terminal Strip	X			X
NS	3000-1332	Wire Assembly Thermostat Connection	X			X
NS	3000-1333	Wire Assembly CO ₂ Control Connection	X			
NS	3000-1334	Wire Assembly Thermostat Connection		X	X	
NS	3000-1335	Wire Assembly CO ₂ Control Connection			X	X

* Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, include the complete model number and serial number of the unit for which parts are being ordered.

NS – Not Shown

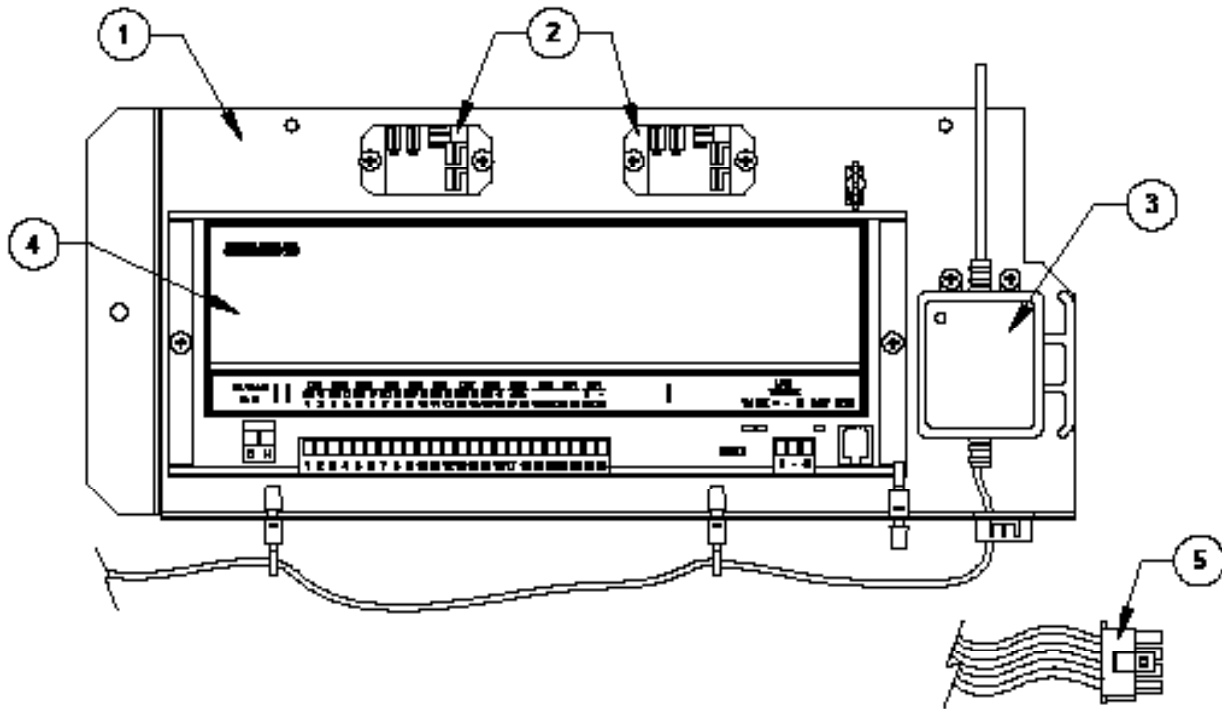
CLIMATE CONTROL OPTION NOMENCLATURE AS SHOWN IN UNIT MODEL NUMBER

QW 3 S 3 D A 02 X X X X X X



- D – Electronic, programmable, manual changeover
- H – Electronic, programmable, manual/auto changeover, CO₂ Control
- K – CO₂ Control with remote thermostat connection

OPTIONAL CLIMATE CONTROLS

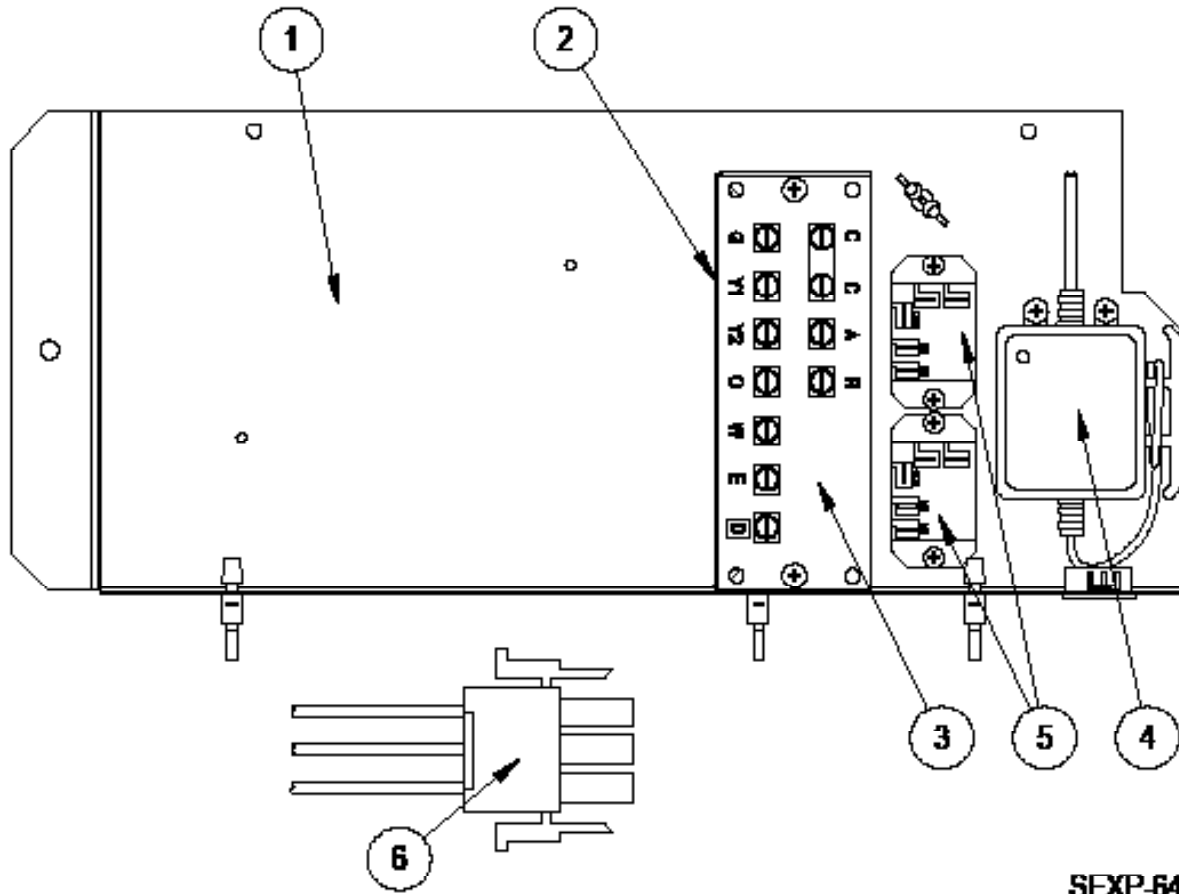


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OPTIONAL CLIMATE CONTROLS

Drawing No.	Part No.	Description	Option S
1	117-325	Control Panel	X
2	8201-130	Relay, SPDT, Pilot Duty	2
3	S910-1820	Condensate Overflow Assembly	X
4	8403-068	Siemens DDC Interface	X
5	3000-1414	Wire Harness	X
NS	4115-106	Wiring Diagram	X
NS	133-122	Control Panel Cover	X

OPTIONAL CLIMATE CONTROLS

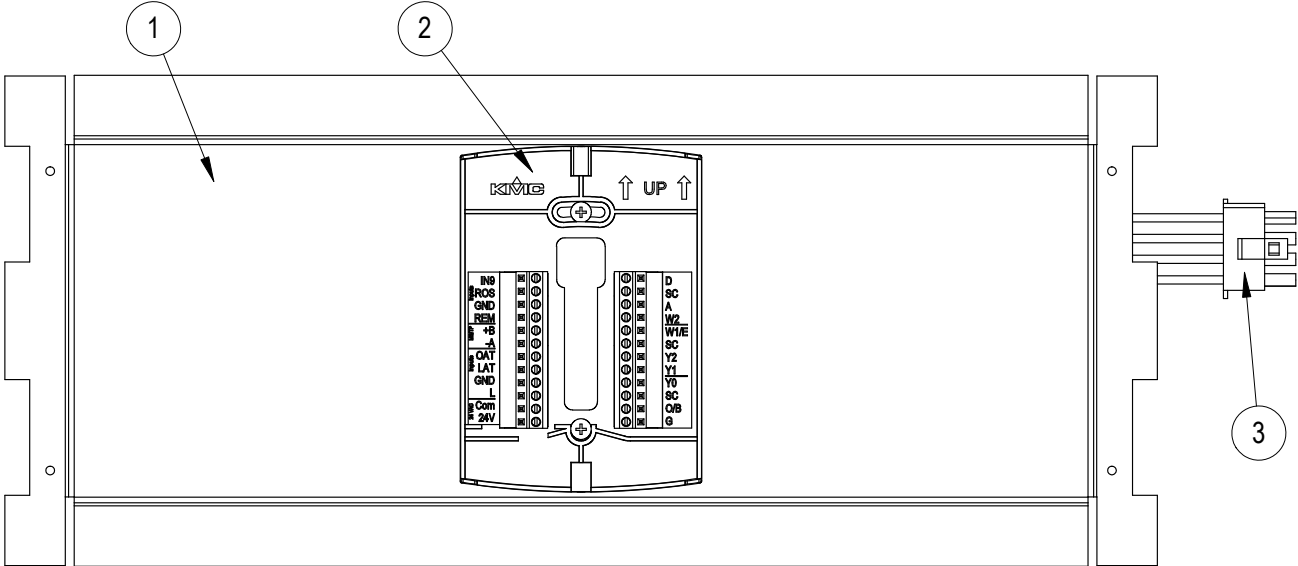


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OPTIONAL CLIMATE CONTROLS

Drawing No.	Part No.	Description	Option C
1	117-328	Control Panel	X
2	117-329	Low Voltage Control Box	X
3	8607-029	Low Voltage Terminal Strip	X
4	910-1822	Condensate Overflow Assembly	X
5	8201-130	Relay, SPDT Pilot Duty	2
6	3000-1415	Wire Harness	X
NS	4115-107	Wiring Diagram	X
NS	133-222	Control Panel Cover	X

OPTIONAL CLIMATE CONTROLS

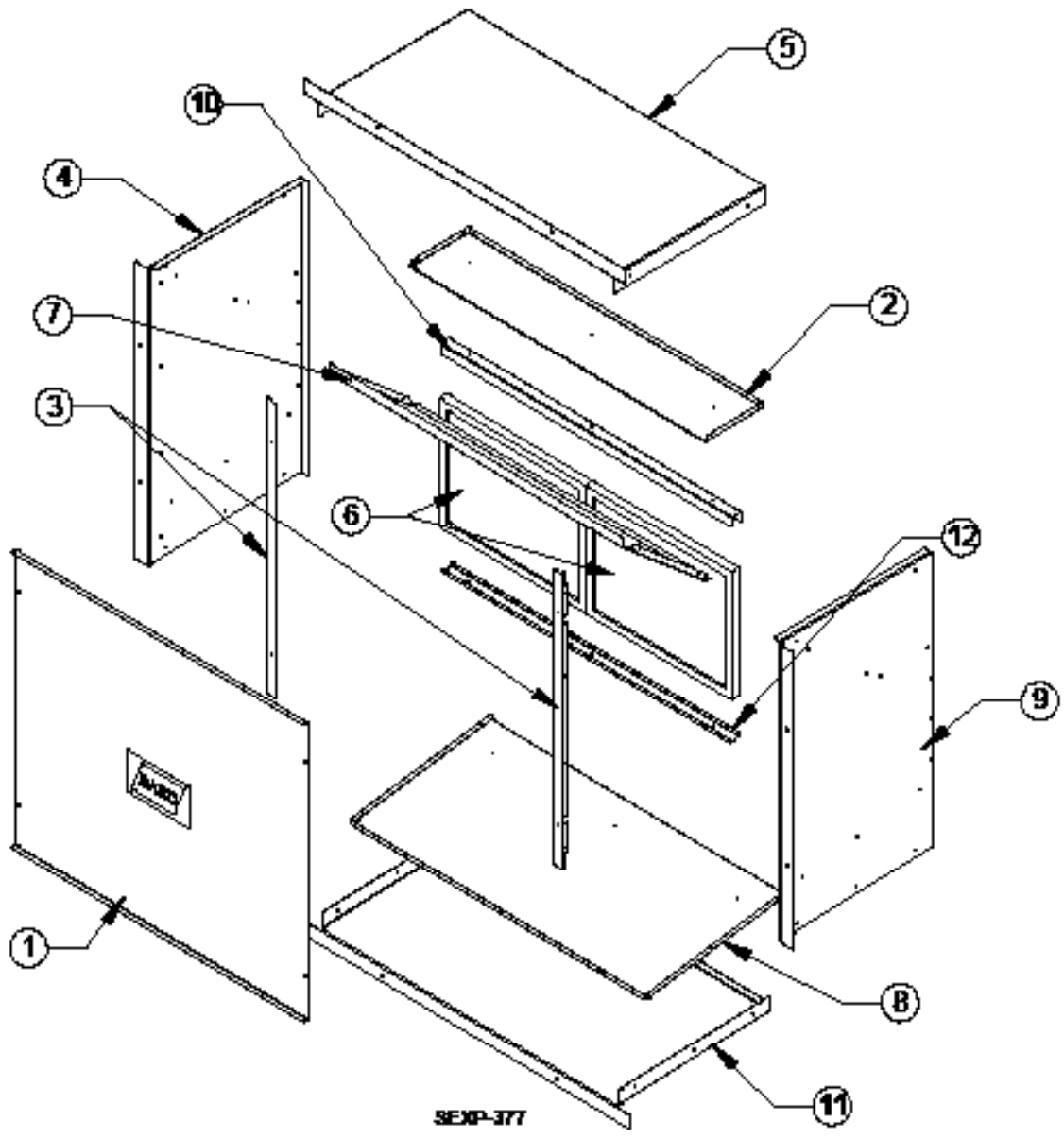


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OPTIONAL CLIMATE CONTROLS

Drawing No.	Part No.	Description	Option 1	Option 2	Option 3	Option 4
1	127-427-*	Thermostat Mounting Plate	X	X	X	X
2	CS9B-THOA	CompleteStat TEMP/HUM/OCC	X			
2	CS9B-THOCA	CompleteStat TEMP/HUM/OCC/CO2		X		
2	CS9BE-THOA	CompleteStat TEMP/HUM/OCC with BACnet			X	
2	CS9BE-THOCA	CompleteStat TEMP/HUM/OCC/CO2 with BACnet				X
3	3000-1704	Wire Assembly	X	X	X	X

WALL SLEEVE CABINET COMPONENTS



WALL SLEEVE CABINET COMPONENTS

Drawing No.	Part No.	Description	QWS42
1	142-076	Cover	X
2	121-350-X	Top Partition	X
3	105-1103-X	Angle	2
4	110-073-X	Left Side	X
5	110-074-X	Top	X
6	7003-056	Mist Eliminator	2
7	111-076-X	Air Deflector	X
8	121-349-X	Partition	X
9	110-072-X	Right Side	X
10	165-566-X	Upper Support Channel	X
11	110-075-X	Base	X
12	165-567-X	Lower Support Channel	X