
REPLACEMENT PARTS MANUAL

FUSION-TEC® WALL-MOUNT AIR CONDITIONER

Models:

HR36APA HR36APB

HR58APA HR58APB

Part of the Bard Free Cooling Unit System

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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

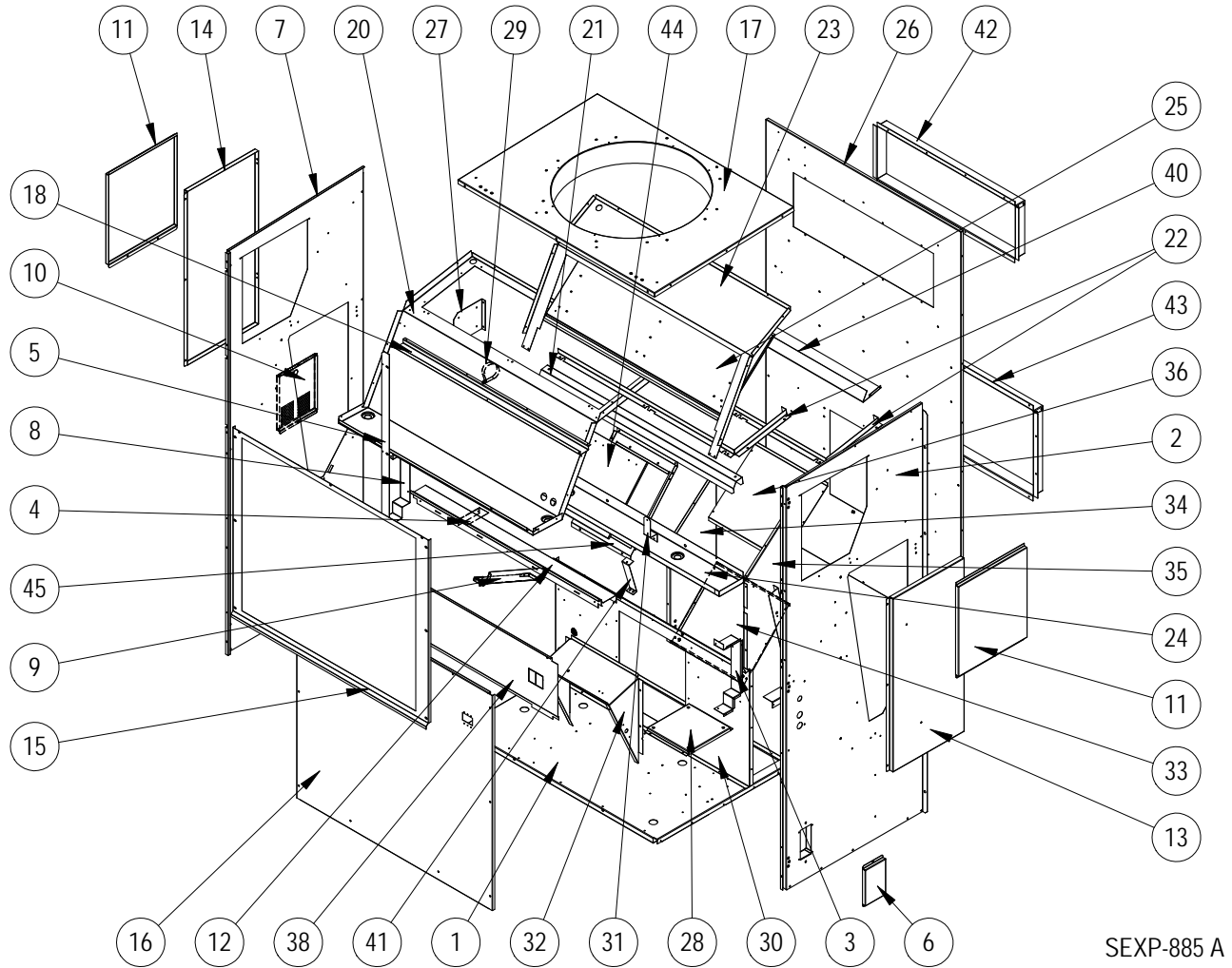
- Contact the installing and/or local Bard distributor for all parts requirements. Make sure to have the complete model and serial number available from the unit rating plates.



Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
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CABINET COMPONENTS



NOTE: When replacing parts in the upper condenser area, note any use of caulk as a sealant. Be sure to replace caulk seals using 100% silicone outdoor-rated caulk.

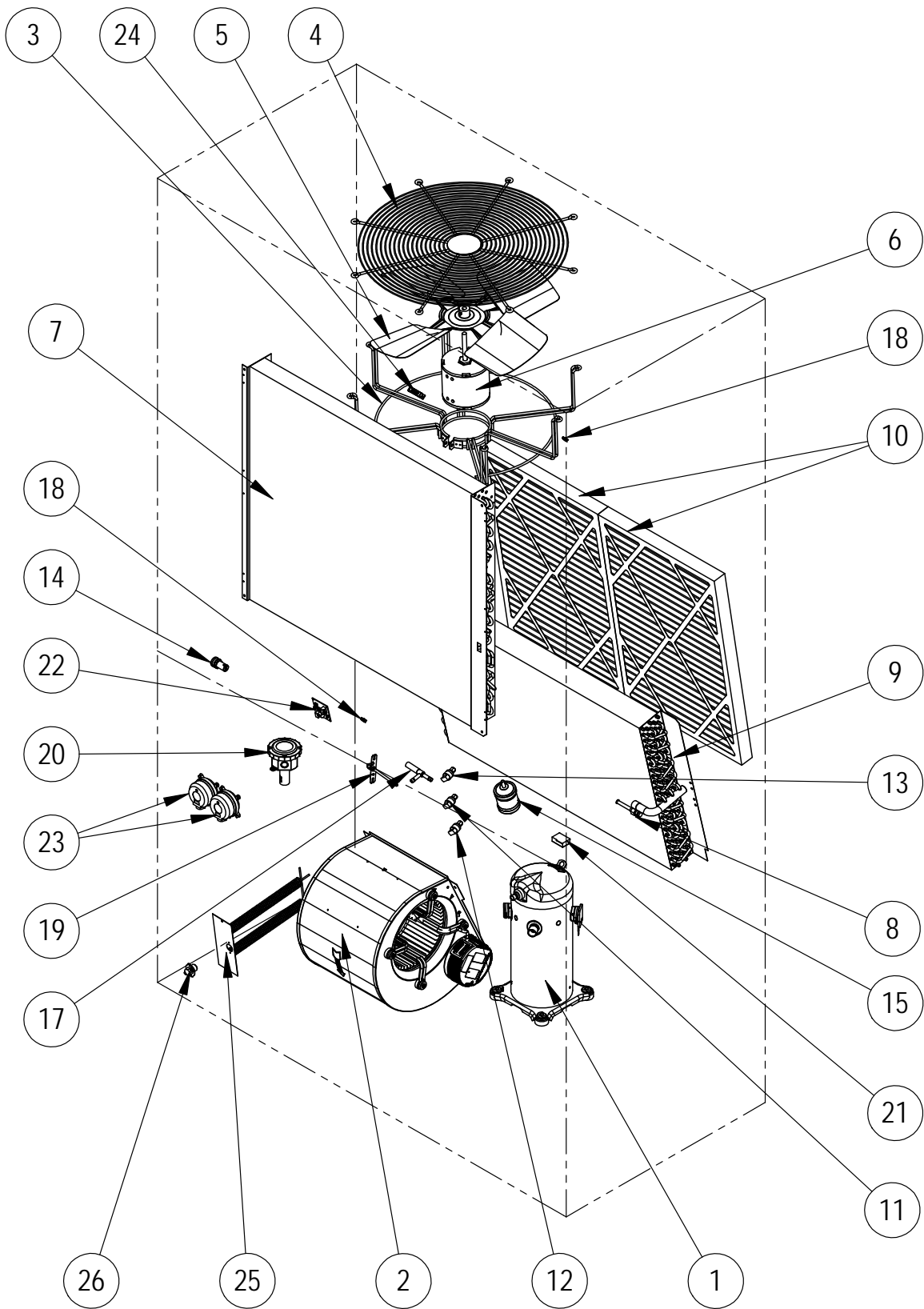
CABINET COMPONENTS

Dwg No.	Part Number	Description	HR36AP*	HR58AP*
1	527-538	Unit Base	X	X
2	S501-1001-* ①	Right Side – Standard Unit	X	X
2	S501-1028-* ②	Right Side – Bard Guard Unit	X	X
3	105X1413	Right Control Panel Angle	X	X
4	105-1416	Drain Pan Angle	2	2
5	105-1425	Condenser Coil Angle	X	X
6	S543-212-* ①	Coremax Box Cover	X	X
7	S501-1002-* ①	Left Side Assembly – Standard Unit	X	X
7	S501-1029-* ②	Left Side Assembly – Bard Guard Unit	X	X
8	105Y1413	Left Control Panel Angle	X	X
9	113-681	Wire Bracket	X	X
10	S533-704-* ①	Control Panel Door	X	X
11	S143-210-* ①	Condenser Access Panel	2	2
12	S135-383-* ①	Rain Channel/Coil Riser	X	X
13	S543-211-* ①	Right Filter Panel	X	X
14	S543-213-* ①	Left Filter Panel	X	X
15	118-117-* ①	Condenser Grille	X	X
16	S533-288-* ①	Control Panel Cover	X	X
17	S107-377-* ①	Unit Top	X	X
18	137-880	Upper Condenser Fill	X	X
20	521-558-* ①	Lower Condenser Partition w/ Damper Frame	X	X
21	131-166	Upper Filter Angle	X	X
22	111-273	Outdoor Air Frame	X	X
23	521-554-* ①	Upper Condenser Partition	X	X
24	S123-154	Drain Pan	X	X
25	921-0035	Exhaust Damper Blade Assembly	X	X
26	S509-392	Back Assembly	X	X
27	113-677	Motor Control Bracket	X	X
28	127-555	Compressor Isolation Plate	X	X
29	8550-011	2-1/2" Single Hole Strap	X	X
30	521-555	Evaporator Partition	X	X
31	113-678	Filter Switch Hose Bracket	X	X
32	111-269	Blower Mounting Duct Flange	X	X
33	539-363	Supply Duct Bottom	X	X
34	539-364	Supply Duct Left	X	X
35	539-365	Supply Duct Right	X	X
36	539-366	Supply Duct Top	X	X
38	S133-290	Inner Control Panel Cover	X	X
40	143-214	Evaporator Coil Cover	X	X
41	113-682	EEV Bracket	X	X
42	111-115	Return Air Frame	X	X
43	111-270	Supply Air Frame	X	X
44	S139-367	Outdoor Damper Blade	2	2
45	S105-1414	Outdoor Damper Frame	2	2
NS	113-150-* ①	Rain Flashing	X	X
NS	113-704	Motor Cradle Mount	X	X
NS	S518-119	Lower Intake Grille Assembly	X	X

① Standard unit exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, please reference the following codes: Beige -X, White -1, Buckeye Gray -4, Desert Brown -5, Dark Bronze -8

② Bard Guard unit sides are manufactured with various paint color options. To ensure the proper paint color is received, please reference the following codes: Beige -X, White -1, Buckeye Gray -4, Desert Brown -5, Dark Bronze -8

FUNCTIONAL COMPONENTS



SEXP-886

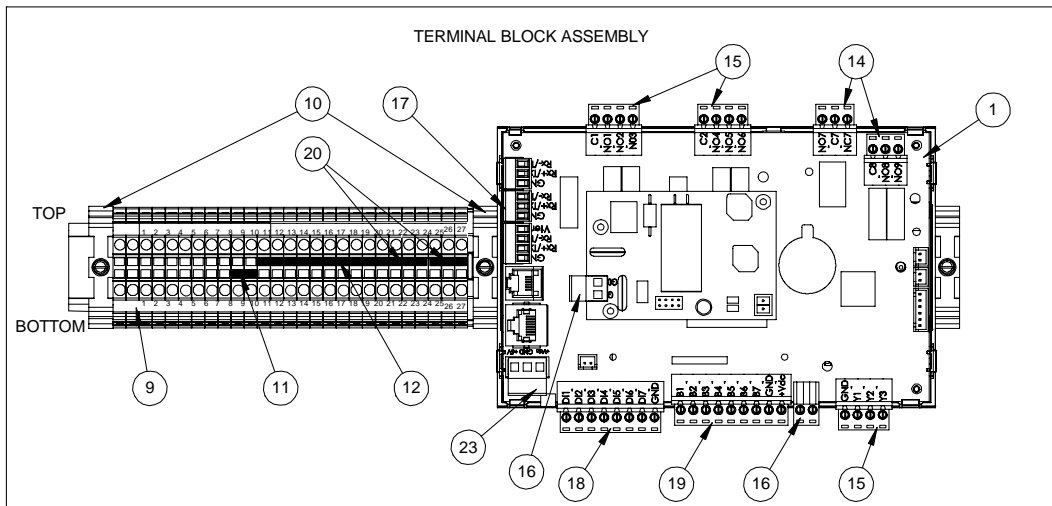
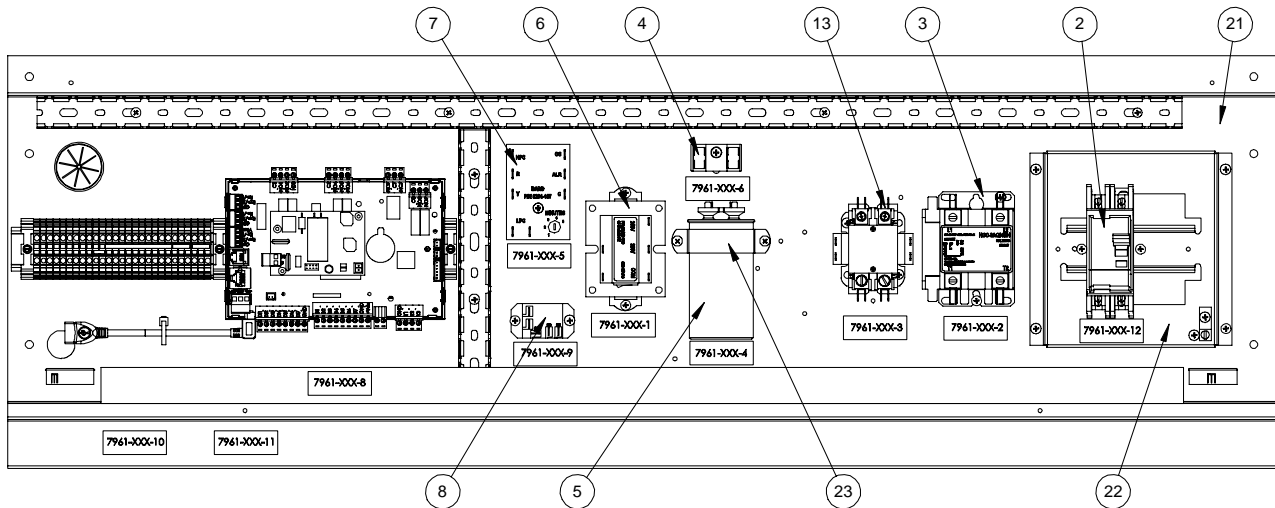
FUNCTIONAL COMPONENTS

Dwg No.	Part Number	Description	HR36APA	HR36APB	HR58APA	HR58APB
1	8000-379	Compressor	X			
1	8000-380	Compressor		X		
1	8000-385	Compressor			X	
1	8000-386	Compressor				X
2	S5154-002-0146	Blower Assembly	X	X		
2	S5154-007-0142	Blower Assembly			X	X
3	8200-055	Condenser Motor Mount	X	X	X	X
4	7051-091	Condenser Discharge Grille	2	2	2	2
5	5151-062	Fan Blade	X	X	X	X
6	S8105-070-0145	Condenser Fan Motor	X	X		
6	S8106-061-0132	Condenser Fan Motor			X	X
7	5051-217	Condenser Coil	X	X		
7	5054-217	Condenser Coil – Coated	X	X		
7	5051-216	Condenser Coil			X	X
7	5054-216	Condenser Coil – Coated			X	X
8	800-0460	Distributor Assembly	X	X		
8	800-0417	Distributor Assembly			X	X
9	917-0343	Evaporator Coil	X	X		
9	917-0344	Evaporator Coil – Coated	X	X		
9	917-0339	Evaporator Coil			X	X
9	917-0340	Evaporator Coil – Coated			X	X
10	7004-027	Air Filter MERV 8 (20"x30"x2")	2	2	2	2
11	8406-157	Liquid Line Pressure Transducer	X	X	X	X
12	8406-158	Suction Pressure Transducer	X	X	X	X
13	8406-142	High Pressure Switch	X	X	X	X
14	8611-199	Filter Service LED	X	X	X	X
15	5201-022	Filter Drier	X	X	X	X
17	5651S244	Electronic Expansion Valve (less cable and stator – see NS below)	X	X		
17	5651S245	Electronic Expansion Valve (less cable and stator – see NS below)			X	X
18	8408-044	Evaporator Temp Sensor	2	2	2	2
18	8408-044	Return Air Sensor				
19	8301-066	Supply Air Temp Sensor	X	X	X	X
20	8301-067	Outdoor Temp and Humidity Sensor	X	X	X	X
21	8301-073	Dust (Particulate) Sensor	X	X	X	X
22	8612-061	Dust (Particulate) Sensor Board	X	X	X	X
23	8301-057	Filter Switch w/Adjustment	2	2	2	2
23	8301-057	Blower Fail Switch w/Adjustment				
24	8406-150	Damper Blade Switch	X	X	X	X
25	--	Reference page 11	X	X	X	X
26	--	Reference page 11	X	X	X	X
NS	6301-009	Coremax Valve Core	2	2	2	2
NS	8605-019	Compressor Crankcase Heater ①	X	X		
NS	8605-017	Compressor Crankcase Heater ①			X	X
NS	8602-040	Damper Hinge	7	7	7	7
NS	8602-084	37-1/4" Rod	2	2	2	2
NS	5651-246	Electronic Expansion Valve Cable and Stator	X	X	X	X
NS	8615-092	Circuit Breaker Boot	X	X	X	X
NS	8408-053	Freeze Stat	X	X	X	X

① – Optional on these models

NS – Not Shown

CONTROL PANEL - 1 PHASE



SEXP-887 B

CONTROL PANEL – 1 PHASE

Dwg No.	Part Number	Description	HR36APA	HR58APA
1	8301-068-002*	UPC3-FUSION-TEC 1.0.0	X	X
2	8615-038	Circuit Breaker 35A 2-Pole	X	
2	8615-041	Circuit Breaker 60A 2-Pole		X
3	8401-038	Contactora 2-Pole 40 Amp (Compressor)	X	X
4	8607-017	Terminal Block 240V 2 Terminal	X	X
5	8552-035 ①	Capacitor 40MFD 370V 1.5" R	X	
5	8552-096	Capacitor 40MFD 440V 2" R		X
6	8407-065	Transformer 208/240-24 75VA	X	X
7	8201-164	Compressor Control Module	X	X
8	8201-130	Relay Pilot Duty	X	X
9	8611-150	DIN Rail Terminal Block	X	X
10	8611-144	DIN Rail End Clamp	X	X
11	8611-194	2 Position Jumper	X	X
12	8611-203	10 Position Jumper	X	X
13	8401-034	Contactora 2-Pole 40 Amp (Heat)	X	X
14	8611-147	3-Pin Circuit Board Connector	2	2
15	8611-148	4-Pin Circuit Board Connector	3	3
16	8611-183	2-Pin Circuit Board Connector	2	2
17	8611-192	3-Pin Circuit Board Connector	1	1
18	8611-185	8-Pin Circuit Board Connector	1	1
19	8611-149	9-Pin Circuit Board Connector	1	1
20	8611-208	3 Position Jumper	2	2
21	517-400	Control Panel	X	X
22	127-556	Circuit Breaker Base	X	X
23	8611-237	Power Plug	X	X
NS	8301-088	USB A to Micro B 90° Cable	X	X

* Replacement part will have a letter attached to the end of the part number to designate software version (Example: 8301-068-002**A**). A software upgrade of all PLCs onsite (units and controllers) should accompany any PLC replacement. Latest revisions of software, change log and instructions are available on the Bard website at <http://www.bardhvac.com/software-download/>

① Capacitor mounted to HR36APA control panel

Wiring diagram reference listed under **HEATER PACKAGES** on page 11

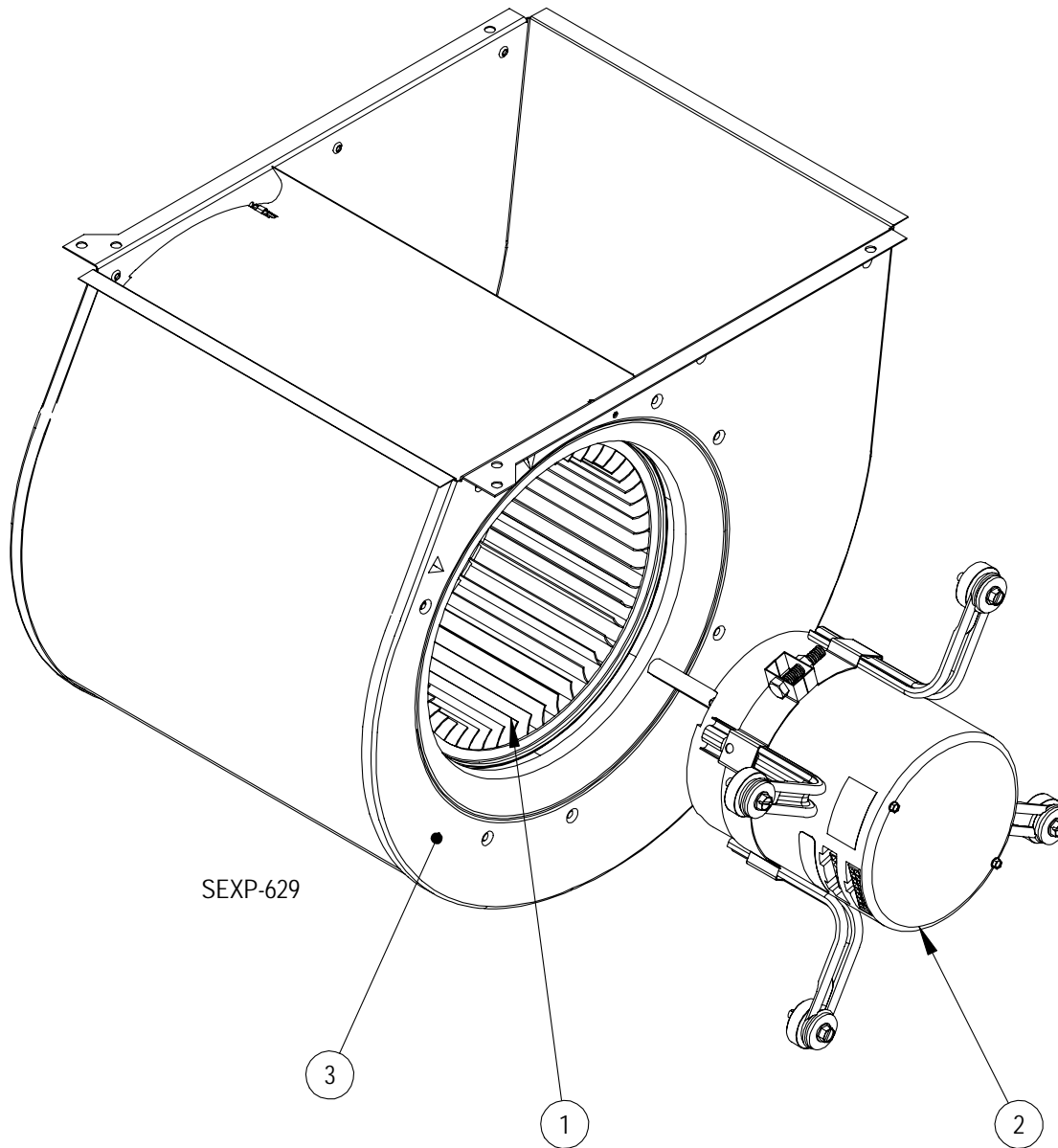
CONTROL PANEL – 3 PHASE

Dwg No.	Part Number	Description	HR36APB	HR58APB
1	8301-068-002*	UPC3-FUSION-TEC 1.0.0	X	X
2	8615-044	Circuit Breaker 45A 3-Pole	X	
2	8615-052	Circuit Breaker 30A 3-Pole		X
3	8401-037	Contactora 3-Pole 30 Amp (Compressor)	X	X
4	8607-017	Terminal Block 240V 2 Terminal	X	X
5	8201-126	3 Phase Line Monitor 50/60 HZ	X	X
6	8407-065	Transformer 208/240-24 75VA	X	X
7	8201-164	Compressor Control Module	X	X
8	8201-130	Relay Pilot Duty	X	X
9	8611-150	DIN Rail Terminal Block	X	X
10	8611-144	DIN Rail End Clamp	X	X
11	8611-194	2 Position Jumper	X	X
12	8611-203	10 Position Jumper	X	X
13	8401-035	Contactora 3-Pole 25 Amp (Heat)	X	X
14	8611-147	3-Pin Circuit Board Connector	2	2
15	8611-148	4-Pin Circuit Board Connector	3	3
16	8611-183	2-Pin Circuit Board Connector	2	2
17	8611-192	3-Pin Circuit Board Connector	1	1
18	8611-185	8-Pin Circuit Board Connector	1	1
19	8611-149	9-Pin Circuit Board Connector	1	1
20	8611-208	3 Position Jumper	2	2
21	517-400	Control Panel	X	X
22	127-556	Circuit Breaker Base	X	X
23	8611-237	Power Plug	X	X
NS	8301-088	USB A to Micro B 90° Cable	X	X

* Replacement part will have a letter attached to the end of the part number to designate software version (Example: 8301-068-002**A**). A software upgrade of all PLCs onsite (units and controllers) should accompany any PLC replacement. Latest revisions of software, change log and instructions are available on the Bard website at <http://www.bardhvac.com/software-download/>

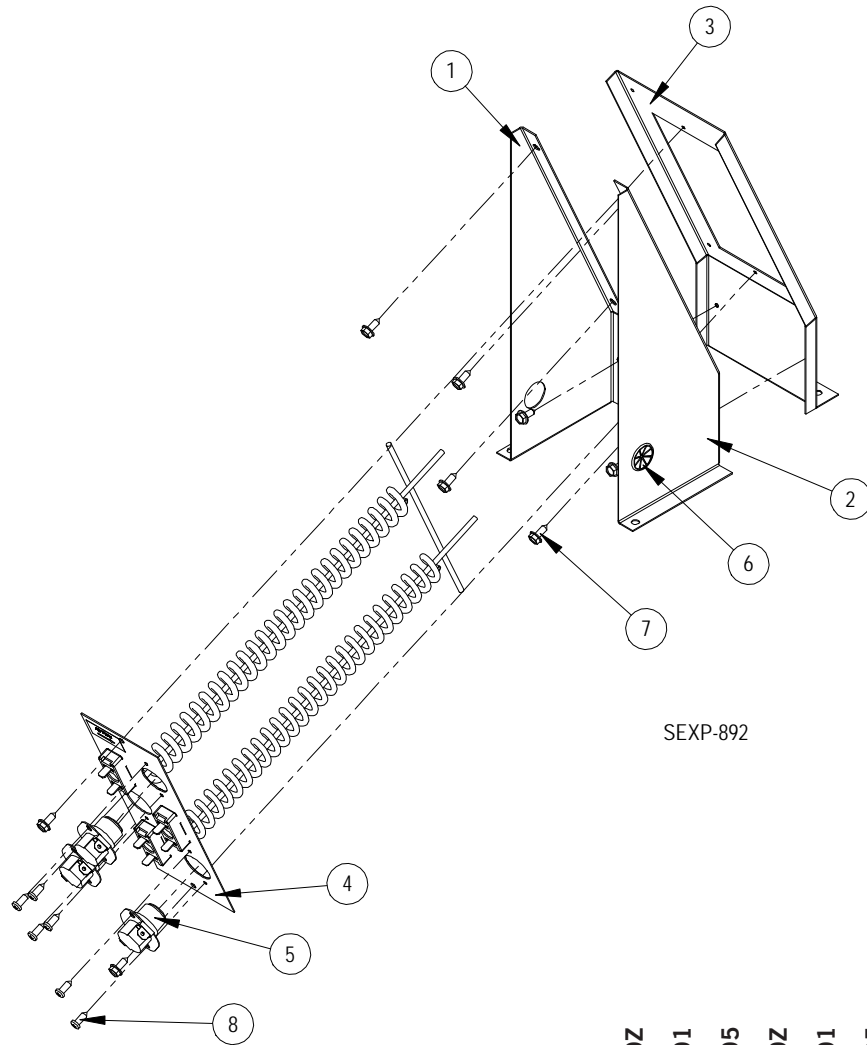
Wiring diagram reference listed under **HEATER PACKAGES** on page 11

BLOWER ASSEMBLY COMPONENTS



Drawing No.	Part Number	Description	5154-002-0146	5154-007-0142
1	5152-049	Blower Wheel	X	
	S8105-059-0146	1/3 HP Programmed Motor	X	
2	C8105-059-0146	1/3 HP Control Only Replacement	X	
	C5154-007-0142	3/4 HP Control Only Replacement		X
3	151-122	Housing	X	

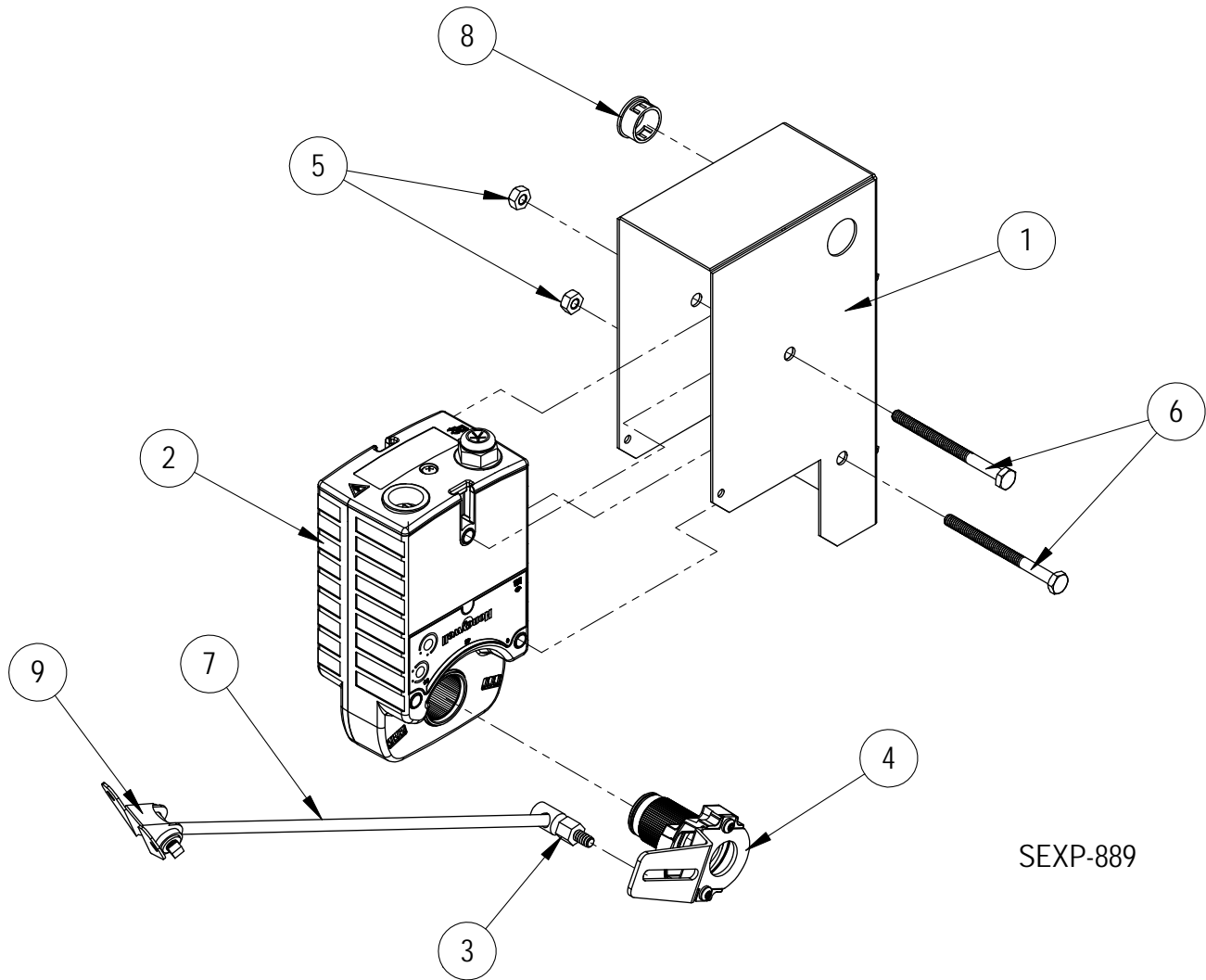
HEATER PACKAGES



SEXP-892

Dwg No.	Part Number	Description	HR36APA0Z	HR36APA01	HR36APA05	HR58APA0Z	HR58APA01	HR58APA05	HR36APB0Z	HR36APB05	HR58APB0Z	HR36APB05
1	113Y671	Left Heater Support		X	X		X	X		X		X
2	113X672	Right Heater Support		X	X		X	X		X		X
3	113-668	Heater Bracket Front		X	X		X	X		X		X
4	8604-150	Heat Strip 1.5KW 240V 2 Term		X			X					
4	8604-148	Heat Strip 5.0KW 240V 2 Term			X			X				
4	8604-149	Heat Strip 6.0KW 240V 3PH								X		X
5	8402-190	Limit Control 130P/150BU		1	1		1	1		3		3
6	8611-016	Universal Bushing		X	X		X	X		X		X
7	1012-065	Screw, Type AB PZPNHD #8-18X3/8		6	6		6	6		6		6
8	1012-086	Screw, Type AB HXWHD #10-16X1/2		8	8		8	8		8		8
NS	4208-100	Wiring Diagram	X			X						
NS	4208-101	Wiring Diagram		X	X		X	X				
NS	4208-200	Wiring Diagram							X		X	
NS	4208-201	Wiring Diagram								X		X

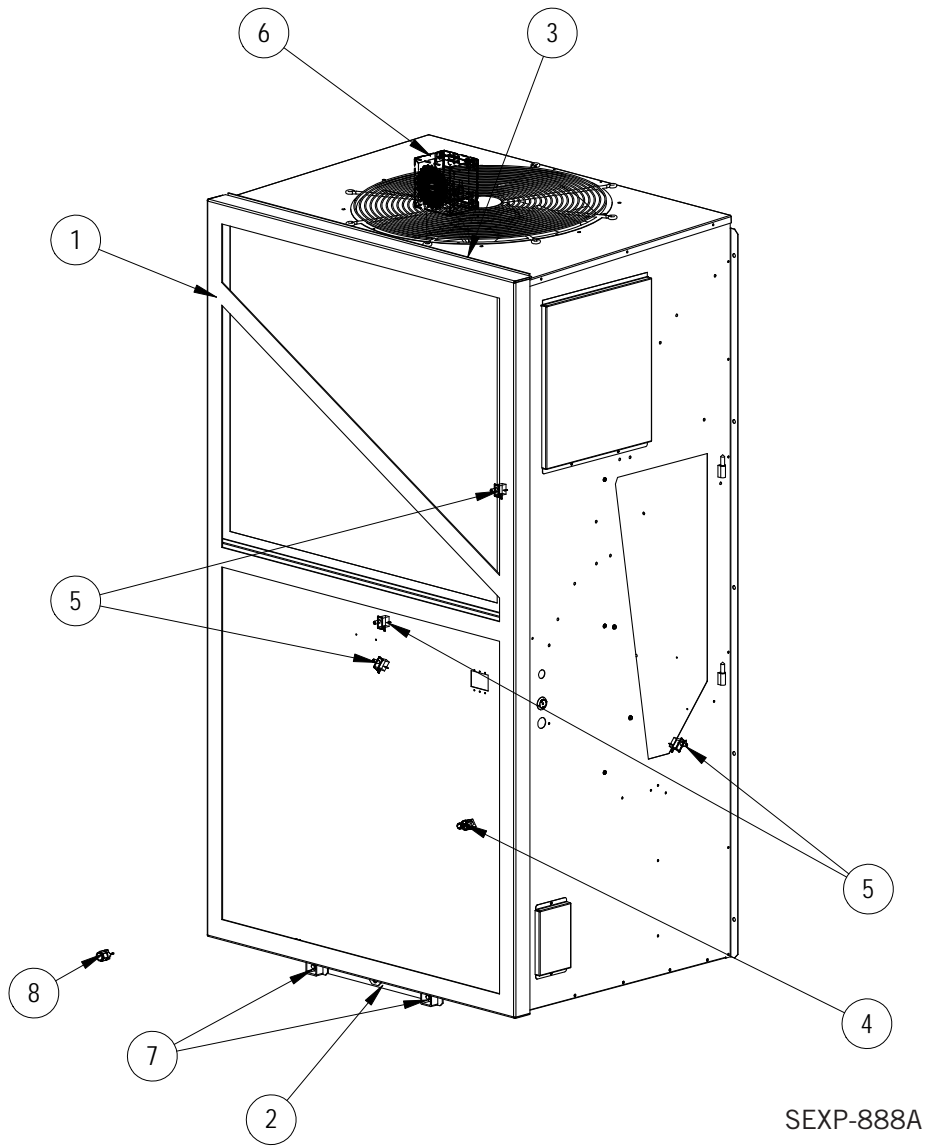
FREECOOLING DAMPER MOTOR



SEXP-889

Dwg. No.	Part Number	Description	All Models
1	113-694	Actuator Support Plate	X
2	8602-067	Direct Coupled Actuator	X
3	8602-008	Ball Joints	X
4	8602-068	Crank Arm	X
5	1012-201	1/4-20 Steel Keps Hex Nut Zinc	2
6	1012-174	1/4" - 20x3 - 1/4 Hex Cap Screws	2
7	8602-085	1/4" x 13-3/4" Rod	X
8	8611-033	Snap Bushing 7/8"	X
9	8602-040	BKP-24 Bracket	X

ANTI-THEFT KIT (OPTIONAL)



Dwg No.	Part Number	Description	HR36AP*	HR58AP*
1	9050-004	Frame Assembly	X	X
2	9050-005	Base Bracket	X	X
3	9050-006	Top Bracket	X	X
4	8406-135	Low Pressure Switch	X	X
5	8406-156	Panel Switch	4	4
6	910-2038	Speaker Assembly	X	X
7	1012-346	Tri-Groove Nut	2	2
8	2151-022	Tri-Groove Socket - Key	X	X