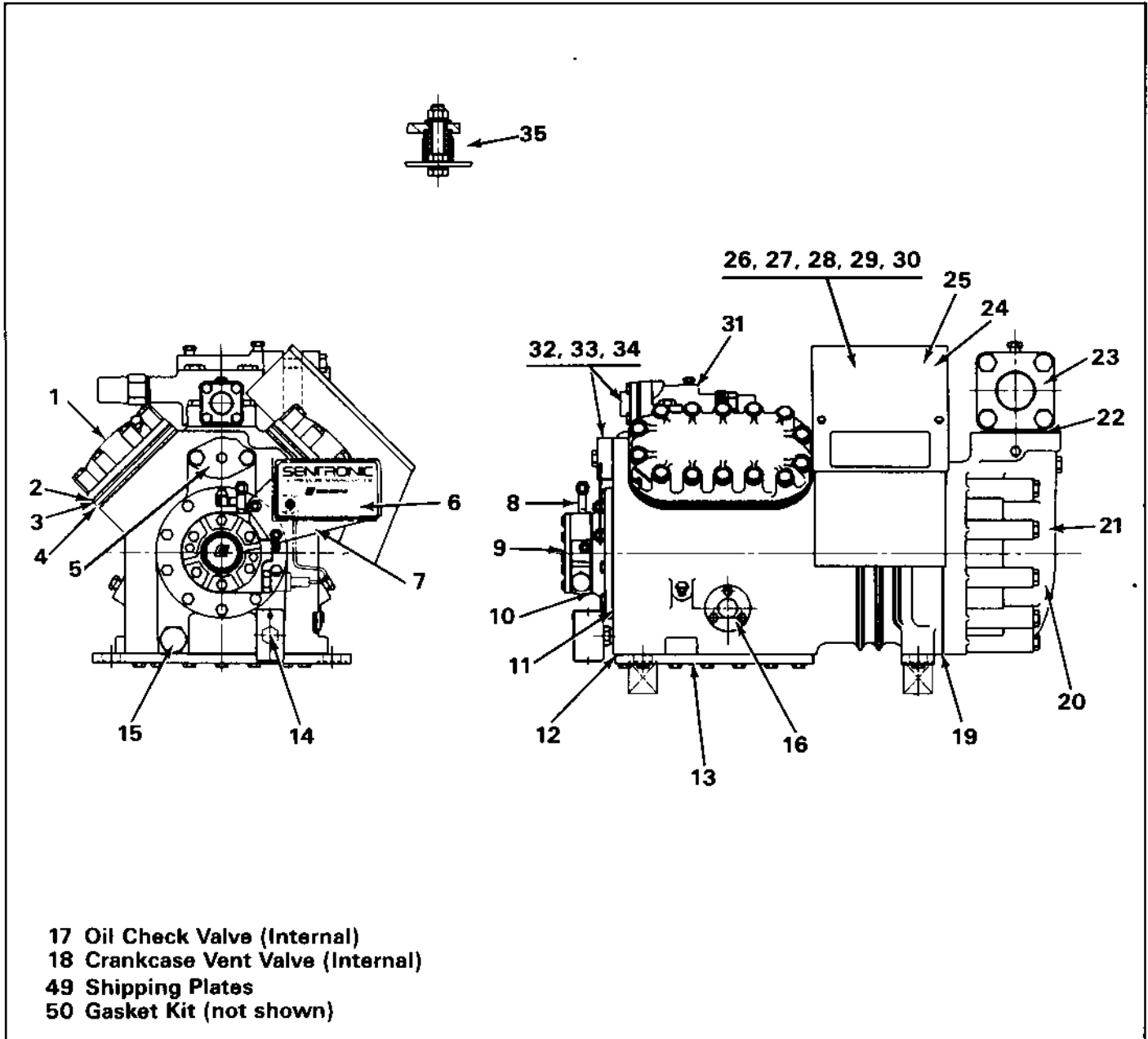
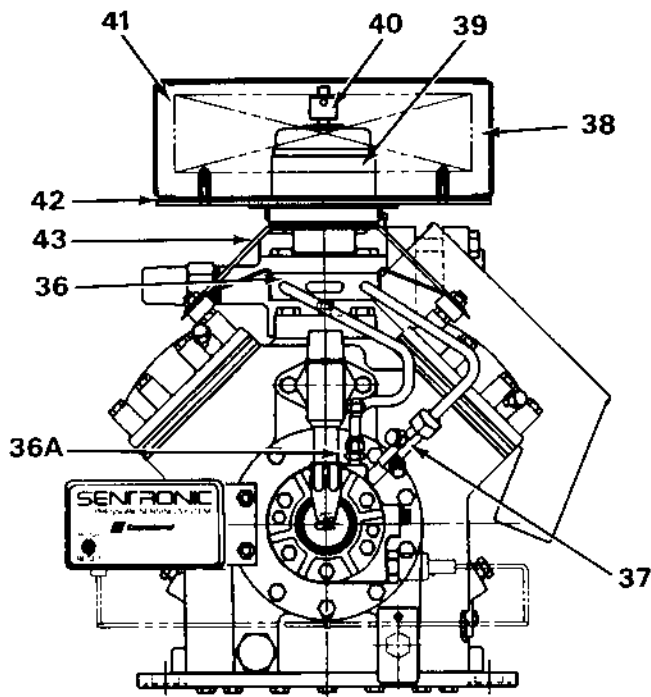




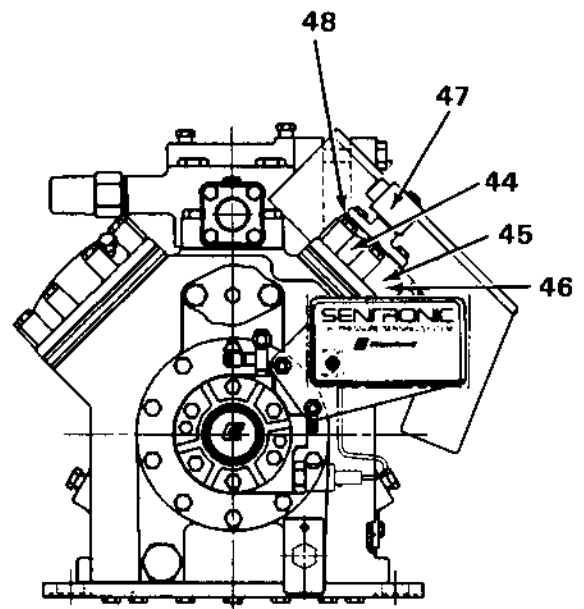
"4D & 4R" SERIES COPELAMETIC® COMPRESSOR PARTS LIST

Outline Drawing with Reference Numbers





Low Temperature with Oil Cooler and Cooling Fan Mounted



Capacity Control Model

Field Replacement Parts

Ref. No.	Part Description	Part Number	Model Series	
1	Cylinder Head-Standard	002-0179-00	4RA, 4RE, 4RH, 4RK & 4RL	
	Cylinder Head-Standard	002-0185-00	4RJ & 4RR	
	Cylinder Head-Standard	002-0160-00	4DA, 4DE, 4DH, 4DJ, 4DK, 4DL, 4DP, 4DR, 4DS & 4DT	
	Cylinder Head Kit-Capacity Control	998-0119-20	4RE & 4RK	
	Cylinder Head Kit-Capacity Control	998-0119-21	4RR	
	Cylinder Head Kit-Capacity Control	998-0119-26	4DE, 4DK, 4DN, 4DP, 4DR & 4DS	
	<i>(Cylinder head kit includes head, capacity control piston, spring, and gaskets.)</i>			
2	Gasket-Cylinder Head	020-0629-00	All 4R	
	Gasket-Cylinder Head (Standard)	020-0600-00	All 4D	
	Gasket-Cylinder Head (Capacity Control)	020-0616-00	4DE, 4DK, 4DP, 4DR & 4DS	
3	Valve Plate Kit	998-0661-00	4RA - 7 1/2 & 10 HP	
	Valve Plate Kit	998-0661-52	4RA & 4RE - 20 HP	
	Valve Plate Kit	998-0661-49	4RL	
	Valve Plate Kit	998-0661-51	4RH & 4RK	
	Valve Plate Kit	998-0661-60	4RJ & 4RR	
	Discus valve plate kit selection must be based on standard or capacity control			
	Valve Plate Kit-Standard	998-1661-19	4DA - 10 HP/MFG SINCE OCTOBER 1984	
	Valve Plate Kit-Standard	998-1661-00	4DL, 4DP, 4DS & 4DT	
	Valve Plate Kit-Standard	998-1661-01	4DA - 20 HP/MFG SINCE OCTOBER 1984	
	Valve Plate Kit-Standard	998-1661-01	4DE/MFG SINCE OCTOBER 1984	
	Valve Plate Kit-Standard	998-1661-01	4DH, 4DJ, 4DK & 4DR	
	Valve Plate Kit-Standard	998-1661-02	4DA - 10 HP/MFG BEFORE OCTOBER 1984	
	Valve Plate Kit-Standard	998-1661-02	4DE/MFG BEFORE OCTOBER 1984	
	Valve Plate Kit-Capacity Control Side	998-1661-03	4DE & 4DN/MFG SINCE OCTOBER 1984	
	Valve Plate Kit-Capacity Control Side	998-1661-03	4DK & 4DR	
	Valve Plate Kit-Capacity Control Side	998-1661-09	4DE/MFG BEFORE OCTOBER 1984	
Valve Plate Kit-Capacity Control Side	998-1661-18	4DP & 4DS		
<i>(Valve plate kits include valve plate assembly, suction reeds, and all necessary gaskets.)</i>				
NOTE: Before installing new gaskets, make sure surface is clean and free of material, and with refrigeration oil, lightly oil both sides of the gasket. Valve plate gasket cylinder cutout must match cylinder bore.				
4	Gasket-Valve Plate to Body	020-0626-00	4RA & 4RE	
	Gasket-Valve Plate to Body	020-0627-00	4RH, 4RK & 4RL	
	Gasket-Valve Plate to Body	020-0628-01	4RJ & 4RR	
	Gasket-Valve Plate to Body	020-0664-07	4DA, 4DE & 4DN	
	Gasket-Valve Plate to Body	020-0664-03	4DH, 4DK, 4DL & 4DP	
	Gasket-Valve Plate to Body	020-0664-05	4DJ, 4DR, 4DS & 4DT	
5	Pressure Relief Valve-Internal <i>(Kit includes relief valve and gasket.)</i>	998-0051-00	All (except 4RA, 4RE, 4DA & 4DE)	
6	Sentronic Oil Pressure Control <i>(Kit includes Sentronic oil pressure control, screws to mount control, oil pressure sensor, and sensor gaskets. Control mounting brackets are supplied on service replacement compressors.)</i>	585-1036-00	All	
	Sentronic and Oil Pump Retrofit Kit <i>(Kit includes Sentronic oil pressure control, Part Number 585-1036-00, and oil pump kit Part Number 998-0008-33.)</i>	998-1036-00	All	

Field Replacement Parts

Ref. No.	Part Description	Part Number	Model Series
6	Sentronic Oil Pressure Control <i>(Control only, supplied with 41" cable as standard.)</i>	998-0104-00	All
	Sentronic Sensor Kit <i>(Kit includes sensor and gaskets.)</i>	998-0105-00	All
	Sentronic Extension Cable <i>(Cable is 85" long. Standard 41" cable, supplied with Sentronic control, plugs into extension cable, providing 126" overall length.)</i>	029-0208-00	All
7	Mounting Bracket-Oil Pressure Control	998-0700-01	ALL (except oil cooler models 4RL, 4DL, 4DP, 4DS & 4DT)
	Mounting Bracket-Oil Pressure Control <i>(Oil pressure control brackets are supplied with service replacement compressors.)</i>	998-0700-07	4RL, 4DL, 4DN, 4DP, 4DS & 4DT
8	Oil Pump Schrader Tee	510-0191-00	All
9	Oil Pump Kit <i>(Kit includes oil pump, gaskets, adapter rings, and mounting bolts. Accommodates both Sentronic and capillary tube type oil pressure controls.)</i>	998-0008-33	All
10	Gasket-Oil Pump	020-0733-00	All
11	Gasket-Housing Cover	020-0636-00	All
12	Gasket-Bottom Plate <i>(Use with flat plate and extended oil sump.)</i>	020-0635-00	All
13	Bottom Plate-Standard	003-0094-00	All
	Bottom Plate-Extended Oil Sump <i>(* Indicates various models)</i>	998-1314-00	4R*5, 4RJ2, 4RR2, 4DJ2 & 4DR2
14	Crankcase Heater <i>(100 Watt)</i> Immersion Type For Models with Flat Bottom Plate or Extended Oil Sump		
	120 Volt	518-0002-03	
	240 Volt	518-0002-02	
	480 Volt	518-0002-01	
	600 Volt	518-0002-00	
	External Cartridge Type <i>(200 Watt)</i> <i>(Heater must be installed into heater well in the oil sump.)</i>		
	120 Volt	998-0518-00	
	240 Volt	998-0518-01	
15	Oil Screen Kit	998-0513-00	All 4R
	Oil Screen Kit	998-0513-02	All 4D
	Magnetic Plug	036-0296-00	All
	Gasket-Magnetic Plug <i>(Oil screen kit includes oil screens, spring, magnetic plug, and gasket.)</i>	020-0006-38	All
16	Sight Glass Kit	998-0002-02	All
17	Oil Check Valve	998-0510-00	All
18	Crankcase Vent Valve	510-0003-00	All

Field Replacement Parts

Ref. No.	Part Description	Part Number	Model Series
19	Gasket-Stator Cover	020-0755-00	All
20	Stator Cover Kit-Small	998-1311-00	4RA3 - 7 1/2, 10 & 20 HP, 4RE2, 4RH1, 4RK2 & 4RL1 - 15 HP, 4DA1 & 4DE1 - 10 & 20 HP, 4DH1, 4DK1 & 4DL1 - 15 HP, 4DP1 & 4DN1
	Stator Cover Kit-Medium	998-1311-01	4RA4 & 4RE4, 4RH1 & 4RK2 - 25 HP, 4RL2 - 15 HP, 4RJ & 4RR - 20 HP, 4DA2, 4DH1 & 4DK1 - 25 HP, 4DJ & 4DR - 20 HP, 4DT1 & 4DS1
	Stator Cover Kit-Large <i>(Kit includes stator cover, gaskets, suction strainer screens, and mounting hardware.)</i>	998-1311-02	4RJ, 4DJ, 4RR & 4DR - 30 HP
21	Suction Strainer Screen <i>(Stator cover must be removed to change suction screen.)</i>	548-0116-00	All
22	Gasket-Suction Valve (2 3/4" OD)	020-0006-46	4RA3 - 7 1/2, 10 & 20 HP, 4RE2 4RH1, 4RK2 & 4RL1 - 15 HP, 4DA1 & 4DE1 - 10 & 20 HP, 4DH1, 4DK1 & 4DL1 - 15 HP, 4DP1 & 4DN1
	Gasket-Suction Valve (3 1/4" OD)	020-0006-47	4RA4 & 4RE4, 4RH1 & 4RK2 - 25 HP, 4RL2 - 15 HP, 4RJ & 4RR, 4DA2, 4DH & 4DK - 25 HP, 4DJ, 4DR & 4DT
23	Suction Valve-1 5/8" SWT (4 bolt)	998-0510-07	4RA3 - 7 1/2, 10 & 20 HP, 4RE2 & 4RE4 - 10 & 20 HP, 4RH1, 4RK2 & 4RL1 - 15 HP, 4DA1 & 4DE1 - 10 & 20 HP, 4DH1, 4DK1 & 4DL1 - 15 HP, 4DP1 & 4DN1
	Suction Valve-2 1/8" SWT (4 bolt) <i>(Service valve kit includes valve gasket.)</i>	998-0510-20	4RA4 & 4RE4, 4RH1 & 4RK2 - 25 HP, 4RL2 - 15 HP, 4RJ & 4RR, 4DA2, 4DH1 & 4DK1 - 25 HP, 4DJ, 4DR, 4DS & 4DT

Field Replacement Parts

Ref. No.	Part Description	Part Number	Model Series
23A	Suction and Discharge Valve Kits	998-5100-04 998-5100-12 998-5100-07 998-5100-13 998-5100-14	4DL, 4DP & 4RL 4DS & 4DT 4DA, 4DE, 4RA & 4RE (Except 4RA4 & 4RE4) 4DH - 15 HP & 4RH & 4RK - 15HP 4RA4, 4RE4 4RJ & 4DJ - 20 HP 4DH, 4RH, 4DK & 4RK - 25 HP 4DJ, 4DR, 4RJ & 4RR - 30 HP
<i>(Kits include suction and discharge service valves, gaskets, bolts, and rotalock valve mounting adapter when needed.)</i>			
24	Terminal Box	062-0132-01	All
25	Terminal Box Cover	005-0345-00	All
26	Terminal Board	580-0054-00	All
27	Terminal Parts	521-0065-00	All
<i>(Parts shipped in terminal box of each compressor. Includes terminal jumper bars, terminal stud extensions, power supply connectors, insulator board, and insulator block.)</i>			
28	Gasket-Terminal Plate	020-0638-00	All
29	Terminal Plate-Stud and Insulator Assembly		
	Motor Type		
	TSK	521-0142-00	All
	TSE	521-0143-00	7 1/2, 10 & 15 HP
	TSE	521-0140-00	20, 25 & 30 HP
	FSD, FSM, FSR & FSY	521-0140-00	All
	ESL, ESM, ESY & ESX	521-0141-00	All
<i>(Assembly includes terminal plate gasket.)</i>			
30	Solid State Module Motor Protection		
The 998-0424-xx service kit is used on all "4" series 7 1/2, 10, 15, 20, 22, and 30 HP sizes.			
This also includes the 25 HP size manufactured since September 1981 .			
<i>(The next section shows the replacement kit for the 25 HP size manufactured before September 1981.)</i>			
		Copeland Production	Service Kit
Module Voltage	Vendor P/N	Part Number	Part Number
120 Volt	15AA1600B	071-0424-01	998-0424-01
	MP50-1001	071-0441-01	998-0424-01
	3AA7-2	071-0376-02	998-0424-01
240 Volt	15AA1600C	071-0424-00	998-0424-00
	MP50-1201	071-0441-00	998-0424-00
	3AA4-2	071-0376-01	998-0424-00
<i>(Kits include module, wires, and wiring instructions.)</i>			
Replacement Kit For "4" Series 25 HP Manufactured Before September 1981			
		Copeland Production	Service Kit
Module Voltage	Vendor P/N	Part Number	Part Number
120 Volt	MP13-1018	071-0388-01	998-0071-01
	MP23-1004	071-0398-01	998-0071-01
	MP33-1013	071-0444-01	998-0071-01
240 Volt	MP13-1019	071-0388-00	998-0071-00
	MP23-1003	071-0398-00	998-0071-00
	MP33-1214	071-0444-00	998-0071-00
<i>(Kits include module, wires, and wiring instructions.)</i>			

Field Replacement Parts

Ref. No.	Part Description	Part Number	Model Series
31	Discharge Valve-1 1/8" SWT (2 bolt)	998-0510-09	4RA, 4DA, 4RE, 4DE, 4RH, 4DH, 4RK, 4DK, 4RJ & 4DJ - 20 HP
	Discharge Valve-1 1/8" SWT (Rotalock)	998-0510-02	4RL, 4DL, 4DN & 4DP
	Discharge Valve-1 3/8" SWT (Rotalock)	998-0510-46	4DS & 4DT, 4DJ & 4DR - 30 HP, 4RJ & 4RR - 30 HP
	NOTE: Rotalock Discharge Valve can be used on any 4R or 4D, bolt on discharge valves cannot be used with oil cooler models because of discharge line and oil tube interference. Reference No. 23A, Suction and Discharge Valve Kits		
32	Rotalock Valve Mounting Adapter (Adapter gasket is 020-0012-09)	036-0062-00	4RL, 4DL, 4DN, 4DP, 4DS & 4DT 4DJ & 4DR - 30 HP, 4RJ & 4RR - 30 HP
33	Gasket-Discharge Valve (2-bolt valve)	020-0012-09	All
	Gasket-Discharge Valve (Rotalock)	020-0028-03	All
34	Discharge Muffler Plate (Two gaskets required - Part Number 020-0012-09)	003-0382-00	All
35	Mounting Parts (Flat bottom plate)	527-0037-00	4RA, 4RE & 4RL1 4RH & 4RK - 15 HP 4DA, 4DE, 4DL, 4DN, 4DP, 4DS & 4DT 4DH & 4DK - 15 HP
	Mounting Parts (Flat bottom plate)	527-0042-00	4RH, 4RK, 4DH & 4DK - 25 HP 4RJ, 4RR, 4DJ & 4DR - 20 & 30 HP
	Mounting Parts (Extended oil sump)	527-0079-00	4RJ2, 4RR2, 4DJ2 & 4DR2 - 30 HP
	Mounting Parts (Extended oil sump)	527-0081-00	4RA5, 4RE5, 4RH5 & 4RK5
36	Oil Cooler (Kit includes oil cooler, connecting lines, oil tube fitting, and mounting hardware.)	998-1124-00	4RL, 4DL, 4DN, 4DP, 4DS & 4DT
36A	Fitting - Union	036-0438-00	ALL
37	Oil Tube Fitting (This tube screws into the housing cover and attaches to the oil cooler tube.)	036-0415-00	4RL, 4DL, 4DN, 4DS & 4DT
38	Head Cooling Fan Assembly 208/230 Volt 50/60 HZ 460 Volt 50/60 HZ 115 Volt 50/60 HZ (Kit assembly includes fan motor, fan blade, and fan guard. The fan mounting kit must be ordered separately.)	998-0550-00 998-0550-01 998-0550-02	
39	Fan Motor 208/230 Volt 50/60 HZ 460 Volt 50/60 HZ 115 Volt 50/60 HZ (Kit includes fan motor mounted to bottom guard. Securing the guard to motor requires special bonding material and correct torque. For this reason, motors are supplied with the guard mounted.)	998-0550-03 998-0550-04 998-0550-05	

Field Replacement Parts

Ref. No.	Part Description	Part Number	Model Series
39 Cont.	Old Style Cooling Fan Replacement Parts <i>(Motor sits on top of guard. Current assembly has the guard on top of motor.)</i>		
	Motor 230 Volt	998-0167-00	
	Motor 440 Volt	998-0167-01	
	Fan Blade	083-0077-00	
	Bottom Guard <i>(2 required)</i>	024-0105-00	
	Top Guard <i>(Top guards are no longer available, but the old style assembly can be replaced with new cooling fan assembly and fan mounting kit.) [Reference No. 38]</i>		
40	Fan Blade	083-0118-00	<i>(For current assembly.)</i>
41	Fan Guard-Top	024-0200-00	<i>(For current assembly.)</i>
42	Fan Guard-Bottom	Part of Fan Motor Kit. Reference No. 39. <i>(Cannot be ordered separately.)</i>	
43	Fan Mounting Kit	998-0574-03	All
44	Capacity Control		
	Kit With Valve Plate		
	24 Volt Coil	998-0119-00	Converts 4RA to 4RE
	120 Volt Coil	998-0119-01	Converts 4RA to 4RE
	240 Volt Coil	998-0119-02	Converts 4RA to 4RE
	440 Volt Coil	998-0119-03	Converts 4RA to 4RE
	24 Volt Coil	998-0119-04	Converts 4RH to 4RK
	120 Volt Coil	998-0119-05	Converts 4RH to 4RK
	240 Volt Coil	998-0119-06	Converts 4RH to 4RK
	440 Volt Coil	998-0119-07	Converts 4RH to 4RK
	<i>(Kit with valve plate is required when the installed valve plate has a square external tab. When installed valve plate has a sloped external tab, kits less valve plate can be used. For more information, see AE1216 on internal capacity control.)</i>		
	Kit Less Valve Plate		
	24 Volt Coil	998-0119-08	Converts 4RA & 4RH to 4RE & 4RK
	120 Volt Coil	998-0119-09	Converts 4RA & 4RH to 4RE & 4RK
	240 Volt Coil	998-0119-10	Converts 4RA & 4RH to 4RE & 4RK
	440 Volt Coil	998-0119-11	Converts 4RA & 4RH to 4RE & 4RK
	24 Volt Coil	998-0119-16	Converts 4RJ to 4RR
	120 Volt Coil	998-0119-17	Converts 4RJ to 4RR
	240 Volt Coil	998-0119-18	Converts 4RJ to 4RR
	440 Volt Coil	998-0119-19	Converts 4RJ to 4RR

Field Replacement Parts

Ref. No.	Part Description	Part Number	Model Series
44	Capacity Control (<i>Discus Models - Valve Plate change required</i>)		
Cont.	24 Volt Coil	998-0119-22	Converts 4DA to 4DE, 4DH to 4DK, & 4DJ to 4DR
	120 Volt Coil	998-0119-23	Converts 4DA to 4DE, 4DH to 4DK, & 4DJ to 4DR
	240 Volt Coil	998-0119-24	Converts 4DA to 4DE, 4DH to 4DK, & 4DJ to 4DR
	440 Volt Coil	998-0119-25	Converts 4DA to 4DE, 4DH to 4DK, & 4DJ to 4DR
	24 Volt Coil	998-0119-27	Converts 4DL to 4DP & 4DT to 4DS
	120 Volt Coil	998-0119-28	Converts 4DL to 4DP & 4DT to 4DS
	240 Volt Coil	998-0119-29	Converts 4DL to 4DP & 4DT to 4DS
	440 Volt Coil	998-0119-30	Converts 4DL to 4DP & 4DT to 4DS
	<i>(Kits include capacity control valve and coil assembly, cylinder head, piston assembly, spring, valve plate as required, and gaskets.)</i>		
45	Capacity Control Piston Assembly <i>(Piston is internal and fits into the cylinder head.)</i>	504-0130-00	A II
46	Spring - Internal between valve plate and capacity control piston.	006-0200-00	All

Field Replacement Parts

Ref. No.	Part Description	Part Number	Model Series		
47	Capacity Control Valve and Gasket Kit <i>(Kits include capacity control valve, coil, and valve gasket Part Number 020-0690-00. Kit may contain Alco or Sporlan valves.)</i>				
	24 Volt	120 Volt	240 Volt	440 Volt	
	998-0212-01	998-0212-02	998-0212-03	998-0212-04	
	Coil Only				
	Alco	023-0039-00	023-0039-01	023-0039-02	023-0039-03
	Sporlan	023-0041-00	023-0041-01	023-0041-02	023-0041-03
	Valve Only Kit				
	Alco	998-0212-00			
	Sporlan	998-0243-01			
	<i>(Alco and Sporlan coil are not interchangeable. Valve Only Kits include valve and gasket.)</i>				
48	Gasket-Capacity Control Valve	020-0690-00	All		
49	Shipping Plates				
	Discharge Cover Plate <i>(2 bolt-2 3/4" mounting centers)</i>	003-0055-02	All		
	Gasket Discharge Cover Plate	020-0012-09	All		
	Suction Cover Plate <i>(4 bolt-2 1/2" mounting centers)</i>	003-0203-00	4RA3 - 7 1/2, 10 & 20 HP 4RE2 & 4RE4 - 10 & 20 HP 4RH1, 4RK2 & 4RL1 - 15 HP		
	Gasket-Suction Cover Plate <i>(4 bolt-2 1/2" mounting centers)</i>	020-0008-01	4DA1 & 4DE1 - 10 & 20 HP 4DH1, 4DK1 & 4DL1 - 15 HP		
	Suction Cover Plate <i>(4 bolt-3 1/16" mounting centers)</i>	003-0209-00	4RA4, 4RE4, 4RH1 & 4RK2 - 25 HP 4RL2 - 15 HP		
	Gasket-Suction Cover Plate <i>(4 bolt-3 1/16" mounting centers)</i>	020-0639-00	4RJ, 4RR, 4DA2, 4DH1 & 4DK1 - 25 HP 4DJ, 4DR, 4DT & 4DS		
50	Gasket Kits	998-0669-00	4RA & 4RE		
		998-0669-54	4RH, 4RK & 4RL		
		998-0669-55	4RJ & 4RR		
		998-1669-00	All 4D		
	NOTE: Before installing new gaskets, make sure surface is clean and free of material, and with refrigeration oil, lightly oil both sides of the gasket. Valve plate gasket cylinder cutout must match cylinder bore.				

SERVICE VALVE MOUNTING BOLTS

Ref. No.	Part Description	Bolt P/N	Qty.	Size
32	Rotalock Valve Mounting Adapter	100-0013-48	2	1 1/2" x 1/2" - 13 UNC
31	Discharge Valve	100-0013-50	2	1 7/8" x 1/2" - 13 UNC
23	Suction Valve-1 5/8" SW	100-0013-56	4	3 1/4" x 1/2" - 13 UNC
23	Suction Valve-2 1/8" SWT	100-0013-62	4	4" x 5/8" - 11 UNC

MODEL CONVERSIONS

Stator Cover

Standard Model	Converts To Model	Kit Required
4RA3 & 4RE2	4RA4 & 4RE4	998-1311-01
4RL1	4RL2	998-1311-01
4DA1	4DA2	998-1311-01

Extended Oil Sump

Standard Model	Converts To Model	Kit Required
4RA3, 4RE2, 4RH1 & 4RK2	4RA5, 4RE5, 4RH5 & 4RK5	998-1314-00 & 527-0081-00
4RJ1 & 4RR1	4RJ2 & 4RR2	998-1314-00 & 527-0079-00
4DJ1 & 4DR1	4DJ2 & 4DR2	998-1314-00 & 527-0079-00

Capacity Control

Standard Model	Converts To Model	Kit Required
4RA3 & 4DA1	4RE & 4DE	Refer to No. 44 for kit selection.
4RH & 4DH	4RK & 4DK	
4RJ & 4DJ	4RR & 4DR	
4DL	4DP	
4DT	4DS	