

### Deluxe System 1 Parts Manual

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## Spare Parts Book Liebert Deluxe Systems

**Air Cooled** 

**Water Cooled** 

**Glycol** 

**Chilled Water** 

#### ORDERING INFORMATION

Part number and description of each part is required.

When a part number is not known or not shown in parts catalog, complete model and serial number of the unit is a necessity.

Verbal orders will not be accepted without the following information:

- A.) Unit model Number
- B.) Unit serial Number
- C.) Authorization with purchase order number
- D.) LIEBERT part number
- E.) Proper shipping instructions and destination

Send orders to: LIEBERT CORPORATION, 1050 Dearborn Dr.

Columbus, Ohio 43229

Attention: Parts Manager — Mr. Robert Carney

Minimum billing is \$15.00 net.

Federal, State, Local or other taxes are not included in prices shown on the parts price sheets.

On emergency orders received in Columbus after 1:00 P.M. E.S.T. for same day shipment, Monday through Friday, or for Saturday, Sunday, or holiday shipment a Service Charge of \$25.00 or actual cost will be billed; whichever is higher.

All prices are subject to change without notice.

We reserve the right to ship substitute or alternate parts when interchangeable with the original part ordered. Billing will be on the basis of list price of actual part shipped.

Terms of shipment are F.O.B. Columbus Freight Collect. Premium Transportation such as Air, Railway Express and Bus will be shipped collect, F.O.B. shipping point. If it is necessary to pre-pay transportation costs on these methods of shipment, a separate billing will be used to cover the shipping expense.

Orders on which part numbers and description do not agree will be filled according to LIEBERT'S best interpretation. It is suggested that the complete model and serial number of the unit be included on all parts orders.

#### REPLACEMENT PARTS POLICY

Replacement or repair of warranty parts shall be shipped from the factory prepaid unless special handling is required.

There is 30 (thirty) days in which defective parts must be returned. Any part being returned after 30 days will be classified as an unauthorized return.

Warranty defective parts must be returned to the factory prepaid. No collect shipments will be accepted.

All warranty defective part orders must be specified as such including LIEBERT Invoice or Serial Number of a specific unit.

There will be two return material tags available for the return of warranty defective part or parts. The tags will be mailed along with the invoice and replacement parts. One tag must be completed (you must state defect) attached and returned with the defective part or credit will not be issued.

LIEBERT CORPORATION does not assume any responsibility for labor expense for changing defective parts.

Upon receipt of warranty parts which are returned correctly, and our inspection discloses the parts are in fact defective and show no signs of misuse, alterations or abuse, full credit will be issued.

#### INTERNATIONAL REPLACEMENT PARTS POLICY

All warranty defective part orders must be specified as such including LIEBERT Invoice or Serial Number of a specific unit.

LIEBERT CORPORATION does not assume any responsibility for labor expense for changing defective parts.

All International replacement part orders will be shipped from the factory collect, F.O.B. shipping point. If it is necessary to pre-pay any shipment, a separate billing will be issued to cover the shipping expense.

#### PARTS BOOK USAGE INSTRUCTIONS

Follow these instructions when using this Parts Manual:

- I Find the "Table of Contents", located next page.
- II Determine where this replacement part is located in the unit:

Example — Fan Bearing located in Blower Section — Pages 16, 17, 18 and 19.

- III Turn to the pages indicated and locate the part under descriptions; Example Fan Bearings located on page 16.
- IV Find the model number of the unit located on the outside frame bottom, left-hand corner of unit;

Example — FD-245A

V — Use LIEBERT Model Number and description of the part to locate the correct LIEBERT Part Number;

Example — Location — Blower Section
Description — Fan Bearing
Page Number — 16
Model Number — FD-245A
LIEBERT Part Number — B-0640

- VI To cross-reference a replacement part, you will find Code Numbers located in the Parts Book to the left of the Part Number; these Code Numbers are located on the photographs.
- VII To find Code Numbers on Photographs, refer back to the "Table of Contents" and again determine the location of a specific part.

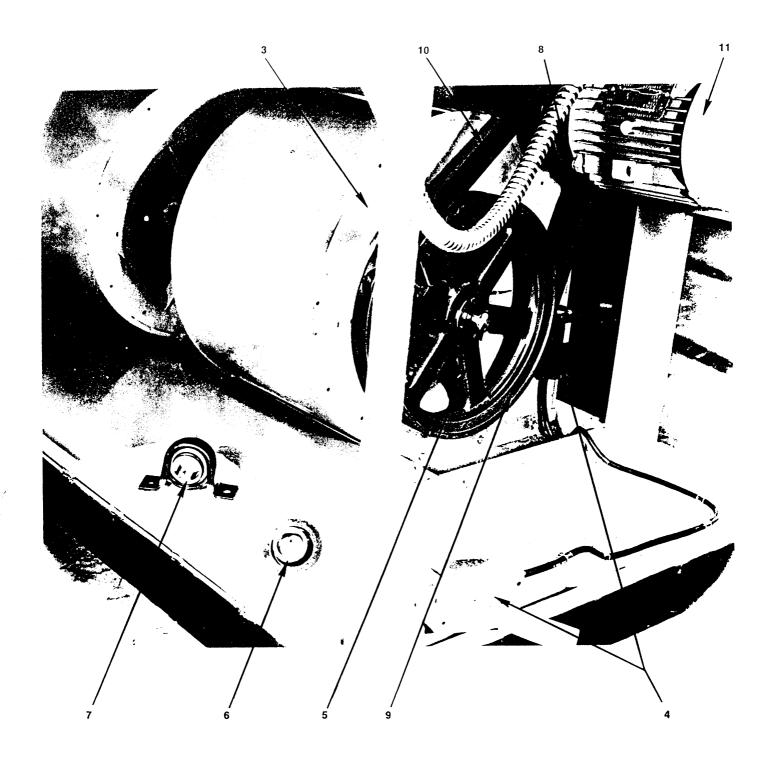
Example — Description — Fan Bearing
Location — Blower Section
Photo Blower Section — Page 1

VIII — Turn to the page indicated and find Code Numbers and descriptions of parts located on that page.

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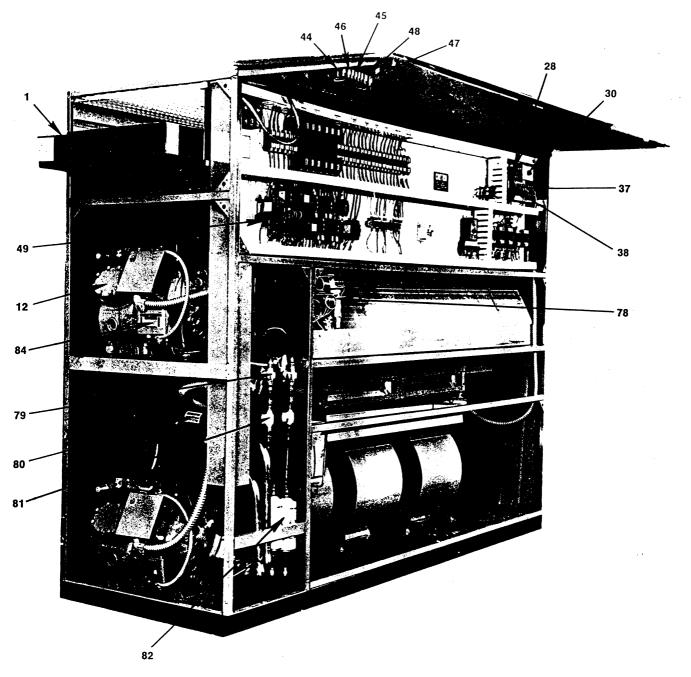
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- 3. BLOWER HOUSING W/WHEEL 4. SAIL SWITCH 5. FAN SHAFT 6. FAN BEARING 7. FAN BEARING

- 8. ADJUSTABLE SHEAVE
  9. SHAFT PULLEY
  10. V-BELT DOWN FLOW UNITS
  11. BLOWER MOTOR

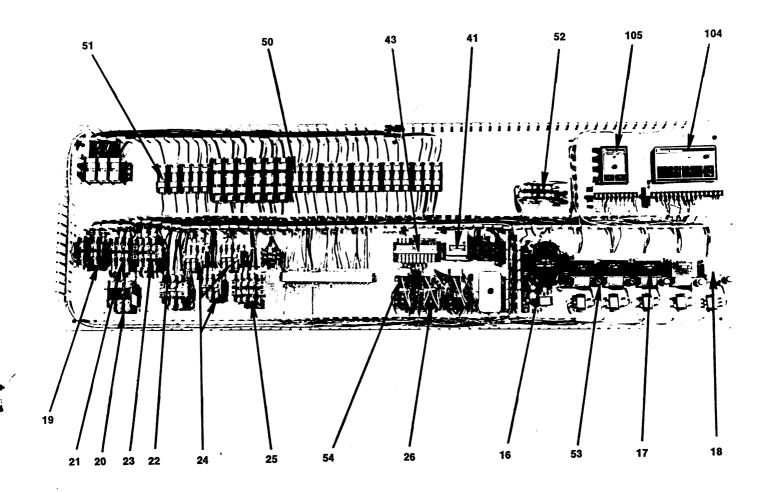


#### **AIR COOLED** (Sequencer Temperature Control)

- 1. STANDARD FILTERS
  12. COMPRESSOR
  28. WET BULB RELAY
  30. THERMOSTAT POTENTIOMETER, INTERNAL
  37. SEQUENCER
  38. SIGNAL CENTER
  44. LAMPS FOR ON-OFF SWITCH
  45. RED 24V INDICATOR LIGHT
  46. GREEN 24V INDICATOR LIGHT

- 47. AMBER 12-24V INDICATOR LIGHT
- 48. GREEN 12V INDICATOR LIGHT
  49. HEATER ELEMENTS (SPECIFY SIZE)
  78. EXPANSION VALVE
  79. SOLENOID VALVE

- 80. MUFFLER 81. LIQUID INDICATOR 82. FILTER DRIER 84. PRESSURE SWITCH



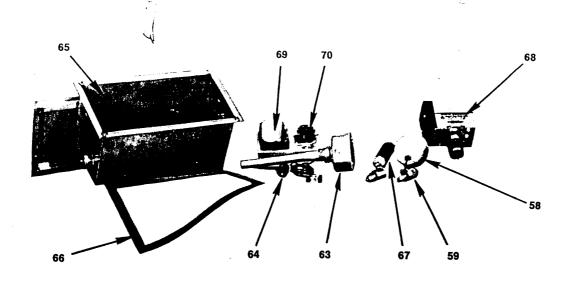
#### **ELECTRICAL PANEL**

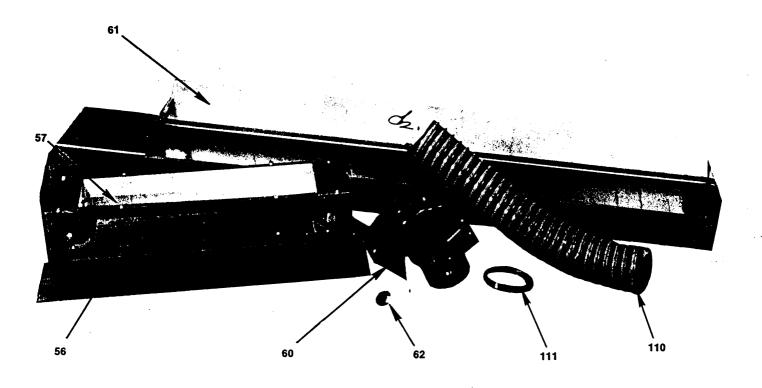
- 16. INTERNAL CONTROL TRANSFORMER
  17. TRANSFORMER
  18. TRANSFORMER
  19. CONDENSER CONTACTOR, 1 PH
  20. TRI-BLOCK, OVERI.OAD
  21. MAIN FAN STARTER
  22. N/O AUXILIARY CONTACT
  23. COMPRESSOR CONTACTOR

- 24. REHEAT CONTACTOR
  25. HUMIDIFIER CONTACTOR, 4 POLE

- 26. CONTROL VOLTAGE RELAY AND SENTINEL
  41. FILTER CLOG INDICATOR
  43. SENTINEL SYSTEM LIEBERT

- 43. SENTINEL SYSTEM LIEBERT
  50. 3-GANG FUSEBLOCK
  51. SINGLE FUSEBLOCK
  52. CONTROL VOLTAGE RELAY
  53. GLASS FUSE, GMO 3.2 AMP
  54. TIME DELAY RELAY FOR FAN SPEED CONTROL
  104. TEMPERATURE CONTROL
  105. HUMIDITY CONTROL



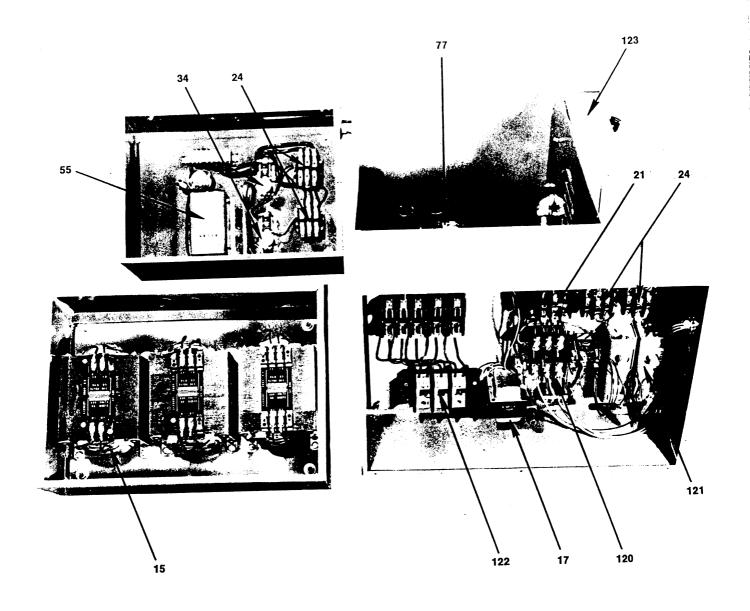


#### **HUMIDIFIER SECTION**

- 56. HUMIDIFIER ENCLOSURE
  57. QUARTZ LAMPS
  58. COPPER FLOAT, INFRARED
  59. FLOAT VALVE ASSEMBLY, INFRARED
  60. VERTICAL HUMIDIFIER BLOWER
  61. HUMIDIFIER PAN
  62. THERMOSTAT SAFETY
  63. CARTRIDGE HEATER

- 64. HUMIDIFIER SAFETY
  65. HUMIDIFIER PAN
  66. HUMIDIFIER PAN GASKET
  67. COPPER FLOAT
  68. 2 WAY MOTORIZED VALVE
  69. MOTOR TIMER
  70. CONTROL SWITCH
  110. SPIRAL TURE

- 110. SPIRAL TUBE 111. SPIRAL TUBE CLAMP

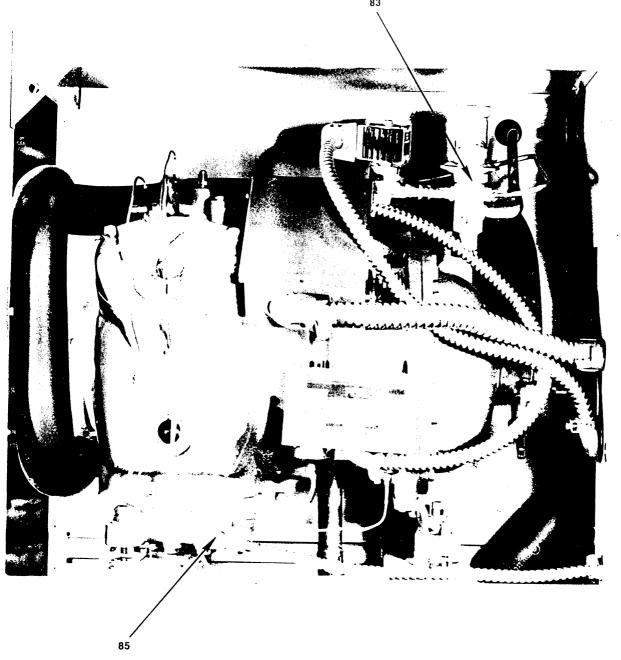


#### TRANSFORMER, FAN SPEED CONTROL AND PUMP PACKAGE SECTION

- 15. CONDENSER TRANSFORMER
  17. TRANSFORMER
  120. TRI-BLOCK OVERLOAD (HI AMBIENT)
  121. AQUASTAT
  122. TERMINAL BLOCK
  123. DISCONNECT SQUARE D

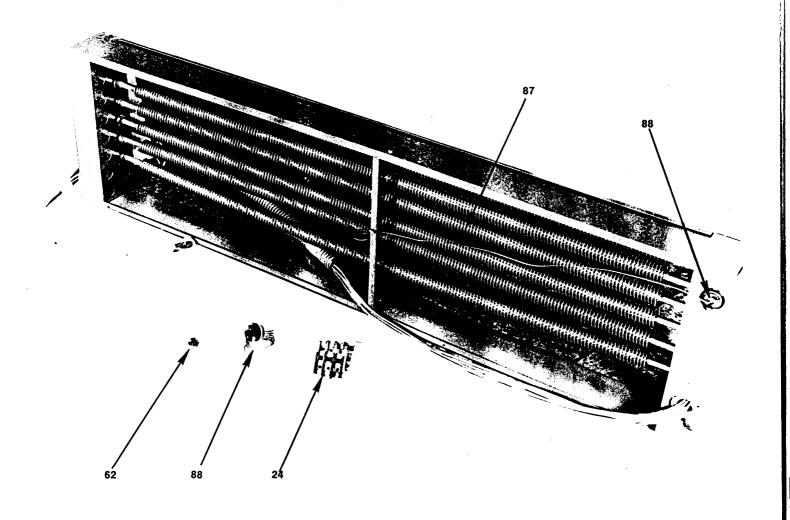
- 55. FAN SPEED CONTROL 77. GLYCOL PUMP 21. 3 POLE CONTACTOR 24. CONTACTOR 34. THERMOSTAT





#### **COMPRESSOR OPTIONALS**

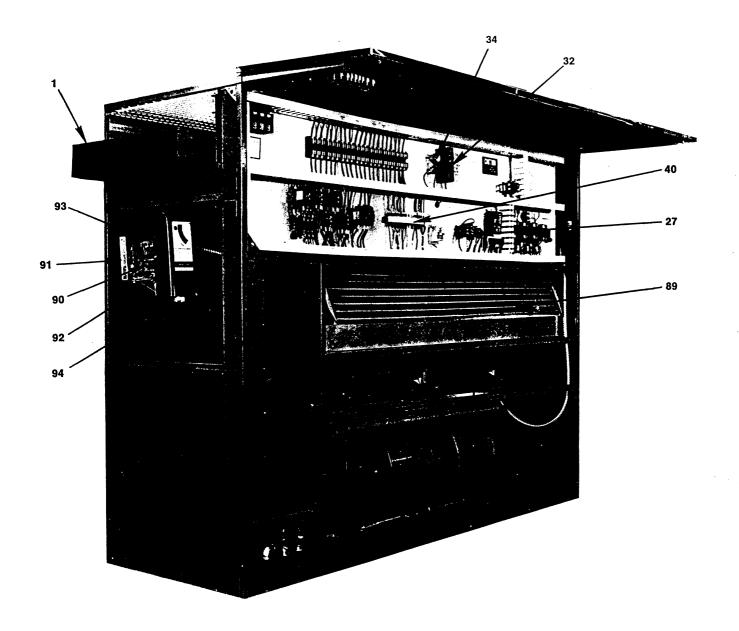
83. DISCHARGE VALVE — HOT GAS BY-PASS 85. CRANKCASE HEATERS



#### **REHEAT SECTION**

24. REHEAT CONTACTOR 62. THERMOSTAT SAFETY

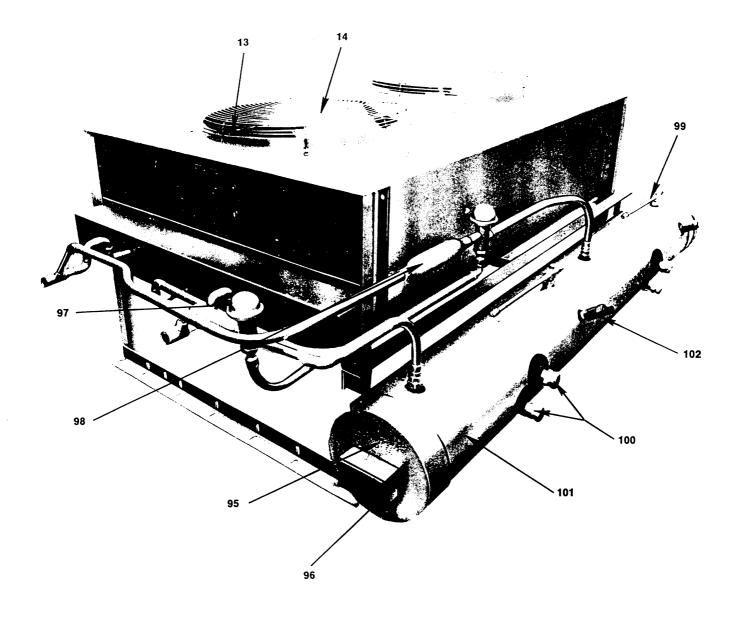
87. REHEAT ELEMENT 88. REHEAT SAFETY



#### **CHILLED WATER**

- 1. STANDARD FILTERS
  27. RELAY 3 POLE
  32. REMOTE BULB TEMPERATURE CONTROL —
  INTERNAL, STEAM REHEAT ONLY
  34. LOW LIMIT THERMOSTAT, REMOTE BULB —
  INTERNAL CONTROL ONLY
  40. TERMINAL STRIP, INTERNAL

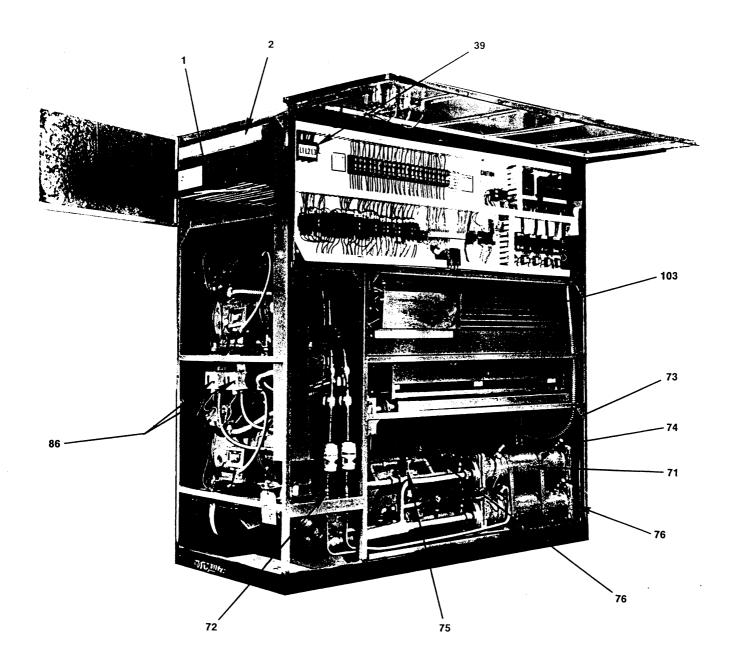
- 89. CHILLED WATER COIL
  90. MODUTROL MOTOR
  91. END SWITCH
  92. VALVE LINKAGE
  93. AUXILIARY POTENTIOMETER
  94. 3-WAY VALVE



#### AIR COOLED CONDENSER W/LEE TEMP

- 13. CONDENSER FAN MOTOR
  14. CONDENSER FAN BLADE
  95. RECEIVER
  96. BELL BOX W/COVER LEE TEMP
  97. 3-WAY CONTROL VALVE LEE TEMP

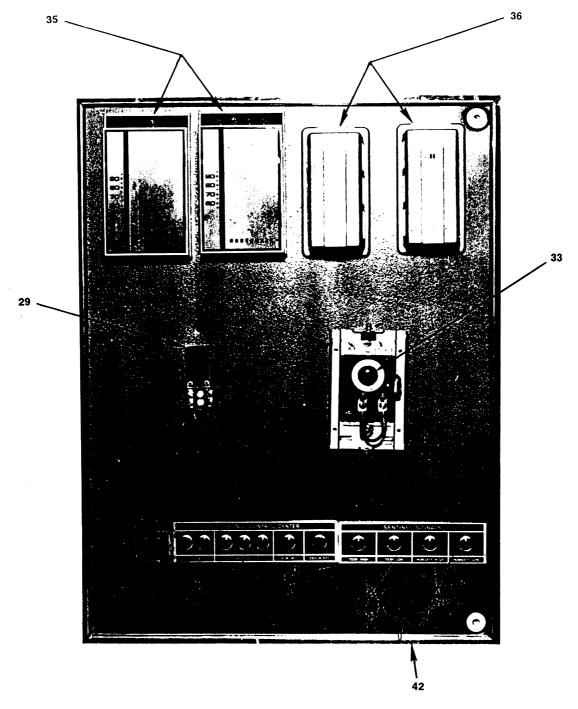
- 98. CHECK VALVE, LEE TEMP
  99. ROTA LOCK VALVE
  100. LIQUID INDICATOR BULLSEYE
  101. SILICONE HEATERS LEE TEMP.
  102. RELIEF VALVE



#### **WATER COOLED**

- 1. STANDARD FILTERS
  2. PRE FILTERS
  39. TERMINAL BLOCK
  71. CONDENSER
  72. GLOBE VALVE
  73. CONDENSER ANGLE VALVE

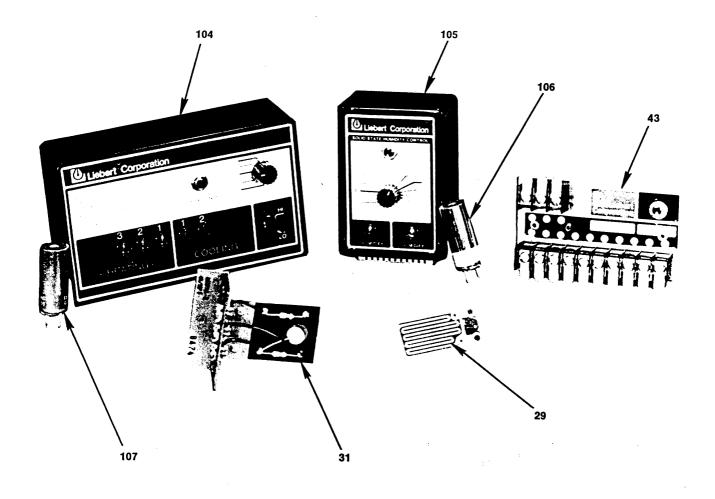
- 74. RELIEF VALVE
  75. REGULATING VALVE
  76. CONDENSER GASKET
  86. PRESSURE CUT OUT SWITCH AIR COOLED AND GLYCOL 103. DX COIL



#### **REMOTE CONTROL PANEL WITH SENTINEL SYSTEM (Optional)**

33. ROOM SENSOR 35. SENTINEL THERMOSTAT 36. SENTINEL HUMIDISTAT

42. REMOTE ON/OFF SWITCH 29. HUMIDITY SENSOR (WAFER STYLE)



#### LIEBERT TEMPERATURE AND HUMIDITY CONTROLS W/SENSORS AND SENTINEL

- 29. HUMIDITY SENSOR
  31. RETURN AIR SENSOR, INTERNAL
  43. SENTINEL SYSTEM LIEBERT
  104. TEMPERATURE CONTROL

- 105. HUMIDITY CONTROL 106. HUMIDITY SENSOR 107. TEMPERATURE SENSOR

# LIEBERT SOL TATE CONTROLS REPLACEMENT AND INTLACHANGEABILITY CHART

						:				
*WE FACTORY REPLACE IT WITH: (RECOMMENDED REPLACEMENT:)	CONTROL MODEL NUMBER	HG-TK**	HG-U*	HG-T	на-п	TC-12	TC-12	TC-23 (Figure 9)	TU-112	TU-223
YOU CAN REPLACE IT WITH:	CONTROL MODEL NUMBER	3-45-6 HG-TK** (Figure 2)	ън Н9-0	HG-T HG-U*	Нд-П	TA-12 TC-12	TC-12	TA-23 TC-23 (Figure 9)	TU-112 — TU-223	TU-223
	MAINTENANCE AND SERVICE LIT. FORM NUMBER	None	None	HG-T Form #72-J-61	HG-U Form #73-E-83	None	None	None	TU-223	TU-223 Form #73-C-80
YOU ALSO HAVE:	AIR CONDITIONING UNIT ACCENT PANEL LIGHT VOLTAGE — IF ANY	12-Volt	12-Volt	12-Volt	24-Volt	None	None	12-Volt	24-Volt	24-Volt
THE	TYPE OF SENSOR	Wafer (Flat)	Plug In (Cylinder)	Plug In (Cylinder)	Plug In (Cylinder)	Plug In Thermistor	Plug In Thermistor	Plug In Thermistor	Plug In	Plug In Thermistor
	CONTROL MODEL NUMBER	3-45-6	НG	HG-T	HG-U	TA-12 Challenger	TC-12 Challenger	TA-23	TU-112	TU-223
IF YOU HAVE:	ORIGINAL	Humidity	Humidity	Humidity	Humidity	Temperature	Temperature	Temperature	Temperature	Temperature

\*With This Replacement Humidification and Dehumidification Accent Panel Lights Must Be Changed from 12-Volt to 24-Volt. (Challenger Models Have No Accent Lights.)

\*\*Model HG-TK is a Conversion Kit from Wafer Type Sensor to Plug In Type Sensor. (See Figure 2.) You Must Specify Relative Humidity Range When Ordering Conversion Kit. Standard Range (44-53% RH); Low Range (33-43% RH); or High Range (54-69% RH).

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	8	24x24x4 Standard Filters	24x18x4 Standard Filters	24x24x Filters	န္က နွ	Bulk 2-D Me Extruded Fra 25"x135' Roll	20x25x6, 60% E Filters, Vertical	16x20x6, 60% E Filters, Vertical	20x25x4 Standard Filters, Vertical
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	DESCRIPTION OF PART	16x20x4 Standard Filters	24x24x2 Pre Filters	24x18x2 Pre Filters	20x25x2 Vertical Pre Filters	16x20x2 Vertical Pre Filters	24x24x4 High Effic. 60% Filters	24x18x4 High Effic. 60% Filters	20x25x4 High Effic. 60% Filters, Vert.	16x20x4 High Effic. 60% Filters, Vert.
	PART NO. DES	A-0330 16)	A-0350 24)	A-0340 24)	A-0360 20	A-0370 163	A-0380 24;	A-0390 24:	A-0400 20	A-0410 16
1	CODE NO.									

			FS/US	FS/US	UD/FD	UD/FD	UD/FD	UD/FD	UD/FD
CODE NO.	PART NO.	DESCRIPTION OF PART	39G 40A 42W	62G 63A 67W 88C	72G 75A 86W	110G 114A 127W 139C	140G 145A 160W 173C 190C 237C 280C	192G 199A 219W 305W 386C	240G 245A 267W 411C
3	B-0010	Blower Housing w/Wheel	x		x	x	x	x	
3	B-0620	Blower Housing w/Wheel		x					
3	B-1130	Blower Housing w/Wheel	}						x
3	B-1170	Blower Housing w/Wheel						x	X
4	B-0120	Sail Switch	x	x	x	x	x	x	X
5	B-1150	Fan Shaft	x	X					
5	B-0020	Fan Shaft			x	x	x -		•
5	B-0030	Fan Shaft						х	
5	B-0630	Fan Shaft							x /
5	*B-1140	Fan Shaft						x	x
6	B-0040	Fan Bearing	x	x	x	x	x	x -	
7	B-0640	Fan Bearing						x	x
8		Adjustable Sheave	x	x	x	x	x	x	x
9		Shaft Pulley	x	x	x	x	x	x	x
10		V-Belt Down Flow Units	×	x	x	x	x	x	x
10		V-Belt Vertical Units	x	x	x	x	x	x	x
		Size, Model Number & Mfg. Part Number <i>Must</i> Be Included with All Orders for Belts, Sheaves and Pulleys.							
		Prices Will Be Quoted.							

<sup>\*</sup>B-114 Fan shaft used on 15 and 20 ton High Speed Chilled Water units only

		PEED BLOWER SECTION INCREASE	FS/US	FS/US	FD/UD	FD/UD
FOR		MOTOR TO NEXT SIZE	39G, 40A 42W	62G, 63A 67W, 88C	72G 75A	110G 114A
CODE NO.	PART NO.	DESCRIPTION OF PART			86W	127W 139C
11	B-0760	Motor, ¾ HP, 208-Volt, 60HZ	x			
11	B-0770	Motor, ¾ HP, 230/460-Volt, 60HZ	X			
11	B-1260	Motor, ¾ HP, 416-Volt, 60HZ	x			
11	B-0780	Motor, ¾ HP, 575-Volt, 60HZ	x			
11	B-0900	Motor, 1 HP, 400-Volt, 50HZ		X	X	
11	B-0150	Motor, 1 HP, 208-Volt, 60HZ		x	X	
11	B-1080	Motor, 1 HP, 220/380-Volt, 50HZ		x	X	
11	B-0160	Motor, 1 HP, 230/460-Volt, 60HZ		x	X	
11	B-1270	Motor, 1 HP, 416-Volt, 60HZ		x	X	
11	B-0170	Motor, 1 HP, 575-Volt, 60HZ	2	x ·	X	
11	B-0910	Motor, 11/2 HP, 400-Volt, 50HZ				x
11	B-0180	Motor, 11/2 HP, 208-Volt, 60HZ				x
11	B-1090	Motor, 11/2 HP, 220/380-Volt, 50HZ				x
11	B-0190	Motor, 11/2 HP, 230/460-Volt, 60HZ				x
11	B-1280	Motor, 11/2 HP, 416-Volt, 60HZ				x
11	B-0200	Motor, 11/2 HP, 575-Volt, 60HZ				x
	<u></u>					<u></u>

FOF			FD/UD	FD/UD	FD/UD	FD/UD
FUF		PEED BLOWER SECTION INCREASE MOTOR TO NEXT SIZE	140G, 145A 160W, 173C 190C, 237C	219W,	240G 245A 267W	411C
CODE NO.	PART NO.	DESCRIPTION OF PART	1900, 2370	2000	305C 386C	
11	B-0920	Motor, 2 HP, 400-Volt, 50HZ	X			
11	B-0210	Motor, 2 HP, 208-Volt, 60HZ	×	,		
11	B-1100	Motor, 2 HP, 220-Volt, 50HZ	×			
11	B-0220	Motor, 2 HP, 230/460-Volt, 60HZ	×			·
11	B-1290	Motor, 2 HP, 416-Volt, 60HZ	×			
11	B-0230	Motor, 2 HP, 575-Volt, 60HZ	×			
11	B-0930	Motor, 3 HP, 400-Volt, 50HZ		x		
11	B-0240	Motor, 3 HP, 208-Volt, 60HZ		x		
11	B-1110	Motor, 3 HP, 220-Volt, 50HZ		x		
11	B-0250	Motor, 3 HP, 230/460-Volt, 60HZ		x		
11	B-1300	Motor, 3 HP, 416-Volt, 60HZ		x		
11	B-0260	Motor, 3 HP, 575-Volt, 60HZ		X		
11	B-0940	Motor, 5 HP, 400-Volt, 50HZ			×	
11	B-0270	Motor, 5 HP, 208-Volt, 60HZ			×	
11	B-1120	Motor, 5 HP, 220-Volt, 50HZ			×	
11	B-0280	Motor, 5 HP, 230/460-Volt, 60HZ			×	
11	B-1310	Motor, 5 HP, 416-Volt, 60HZ			×	
11	B-0290	Motor, 5 HP, 575-Volt, 60HZ			×	
11	B-133A	Motor, 71/2 HP, 220/380-Volt, 50HZ		·	×	
11	B-0360	Motor, 7½ HP, 208-Volt, 60HZ	SPEC	I IAL APPLICA I	TIONS	×
11	B-0350	Motor, 71/2 HP, 230/460-Volt, 60HZ	SPEC	I IAL APPLICA I	TIONS	<b>x</b>
11	B-1320	Motor, 7½ HP, 416-Volt, 60HZ	SPEC	I IAL APPLICA I	TIONS	×
11	B-0340	Motor, 7½ HP, 575-Volt, 60HZ	SPEC	I IAL APPLICA I	TIONS	×
			1			1

#### **COMPRESSOR SECTION**

			FS/US	FS/US	FD/UD
-		COMPRESSOR PARTS ORDERS  Y MODEL NUMBER OF COMPRESSOR	39G, 40A 42W	62G, 63A 67W	72G, 75A 86W
CODE NO.	PART NO.	DESCRIPTION OF PART			
12	C-0360	Compressor, 208-Volt, 60HZ	x		
12	C-0370	Compressor, 230-Volt, 60HZ	×		
12	C-0380	Compressor, 416/460-Volt, 60HZ	×		
12	C-0390	Compressor, 575-Volt, 60HZ	×		
12	C-0370	Compressor, 200-Volt, 50HZ	×		
12	C-0380	Compressor, 400-Volt, 50HZ	×		
12	C-0050	Compressor, 208-Volt, 60HZ		x	
12	C-0060	Compressor, 230-Volt, 60HZ		×	
12	C-0060	Compressor, 200-Volt, 50HZ		x	
12	C-0510	Compressor, 230-Volt, 50HZ	-	X	
12	C-0070	Compressor, 416/460-Volt, 60HZ		x	
12	C-0070	Compressor, 400-Volt, 50HZ		x	
12	C-0010	Compressor, 208-Volt, 60HZ			×
12	C-0020	Compressor, 230-Volt, 60HZ			×
12	C-0500	Compressor, 230-Volt, 50HZ			×
12	C-0020	Compressor, 200-Volt, 50HZ			x
12	C-0030	Compressor, 416/460-Volt, 60HZ			x
12	C-0040	Compressor, 575-Volt, 60HZ			x
12	C-0030	Compressor, 400-Volt, 50HZ			x

#### **COMPRESSOR SECTION**

	WITH AL	L COMPRESSOR PARTS ORDERS	UD/FD	UD/FD	UD/FD
PLEA	SE SPEC	IFY MODEL NUMBER OF COMPRESSOR	110G 114A 127W	140G, 145A 160W, 192G 199A, 219W	240G 245A 267W
CODE NO.	PART NO.	DESCRIPTION OF PART		ŕ	
12	C-0050	Compressor, 208-Volt, 60HZ	х		
12	C-0060	Compressor, 230-Volt, 60HZ	x		
12	C-0060	Compressor, 200-Volt, 50HZ	x		
12	C-0510	Compressor, 230-Volt, 50HZ	x		
12	C-0070	Compressor, 416/460-Volt, 60HZ	x		
12	C-0080	Compressor, 575-Volt, 60HZ	x		
12 ·	C-0070	Compressor, 400-Volt, 50HZ	x		
12	C-0090	Compressor, 208-Volt, 60HZ		x	
12	C-0100	Compressor, 200-Volt, 50HZ		x	
12	C-0100	Compressor, 230-Volt, 60HZ	*:	x	
12	C-0520	Compressor, 230-Volt, 50HZ		x	
12	C-0110	Compressor, 416/460-Volt, 60HZ		x	
12	C-0120	Compressor, 575-Volt, 60HZ		x	
12	C-0110	Compressor, 400-Volt, 50HZ		x	
12 .	C-0340	Compressor, 575-Volt, 60HZ			x
12	C-0330	Compressor, 400-Volt, 50HZ			x
12	C-0310	Compressor, 208-Volt, 60HZ			x
12	C-0320	Compressor, 200-Volt, 50HZ			X
12	C-0320	Compressor, 230-Volt, 60HZ			x
12	C-0330	Compressor, 416/460-Volt, 60HZ			X

#### **AIR-COOLED CONDENSER PARTS**

	FCA/PI	FG ARE IDENTIFICATION LETTERS	FCA/PFG	FCA/PFG	FCA/PFG
		LOCATED ON CONDENSER	5, 10	8, 12, 14 16, 21, 26 30	35
CODE NO.	PART NO.	DESCRIPTION OF PART			
13	D-0680	Condenser Fan Motor  ½ HP, Single Phase, 230-Volt	x	x	
13	D-0690	Condenser Fan Motor 1 HP, Three Phase, 208/220/440-Volt			×
14	D-016B	Condenser Fan Blade ½ Bore, 24"	×		
14	D-016E	Condenser Fan Blade % Bore, 24" (Fan Speed Ctr.)	x		
14	D-016C	Condenser Fan Blade  ½ Bore, 26"		x	
14	D-016D	Condenser Fan Blade % Bore, 26" (Fan Speed Ctr.)	-	<b>X</b>	x
13	B-0950	Condenser Fan Motor 34 HP, 230-Volt (Fan Speed Ctr.)	x	X	x

#### **AIR-COOLED CONDENSER PARTS**

	ACD/G	LY ARE IDENTIFICATION LETTERS		ACD/GLY	ACD/GLY	ACD/GLY
		LOCATED ON CONDENSER		6, 7.5 8, 10	11, 13, 15 21·	24, 28 32, 38
CODE NO.	PART NO.	DESCRIPTION OF PART				
13	D-0120	Condenser Fan Motor  1/3 HP, Single Phase, 230-Volt		X		
14	D-0160	Condenser Fan Blade ½ Bore 22"		X		
13	D-0130	Condenser Fan Motor ½ HP Single Phase, 230-Volt			x	
14	D-0190	Condenser Fan Blade ½ Bore 26" — 28°	1		x	
13	D-0330	Condenser Fan Motor 1 HP, Three Phase, 230/460-Volt		1		X
14	D-0200	Condenser Fan Blade, 26" — 36° % Bore (Fan Speed Ctr.) Blade	<i>t</i>		x	x
13	D-0420	Condenser Fan Motor 1 HP, Three Phase, 575-Volt				x
13	B-0950	Condenser Fan Motor 34 HP, Fan Speed Ctr., 230-Volt		x	x	<b>X</b>
14	D-016A	Condenser Fan Blade % Bore (Fan Speed Ctr.) Blade, 22"		<b>x</b> \		
13	D-0150	Condenser Fan Motor 1 HP, Single Phase, 208-Volt				X
13	D-0140	Condenser Fan Motor ¾ HP, 230-Volt, Bohn Cond. Only				
14	D-016F	Condenser Fan Blade 5 Bore, 26" — 28° (Fan Speed Ctr.)			x	

			FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	
			40A, 63A 75A, 114A 145A 199A 245A	39G, 62G 72G, 110G 140G, 192G 240G	42W 67W 86W 127W 160W 219W 267W	88C 139C 173C 190C 237C 305C 386C	
CODE NO.	PART NO.	DESCRIPTION OF PART				411C	
15	E-0010	Condenser Transformer, 440/480-Volt, 60HZ	x				
15	E-001A	Condenser Transformer, 380/440/415-Volt, 50HZ	×				
15	E-0020	Condenser Transformer, 575-Volt, 60HZ	×		-		
	E-0030	Remote Control Transformer	ľ x	X	X	X	
16	E-0050	Internal Control Transformer, 250VA 208/480-Volt	x	x	x	X	
16	E-0060	Internal Control Transformer, 250VA (Old Style), 575-Volt	x	x	×	×	
	E-2520	Humidifier Blower Transformer, Vertical Only, 480/460-Volt	x	x	x	x	
17	E-007A	Transformer, 75VA, 200-Volt	×	X	X	X	
17	E-007B	Transformer, 75VA, 400-Volt	×	X	X	X	
17	E-007C	Transformer, 75VA, 600-Volt	×	X	X	X	
18	E-007D	Transformer, 75VA, 100-Volt CT	×	X	X	X	
18	E-007E	Transformer, 75VA, 200-Volt CT	×	X	X	X	
18	E-007F	Transformer, 75VA, 400-Volt CT	x	X	X	X	
18	E-007G	Transformer, 75VA, 600-Volt CT	X	X	X	X	
	E-330B	Transformer, 75VA, 380/400/415-Volt, 50 HZ	×	×	x	x	
	E-007P	Transformer, 25VA, 24-24-Volt	×	X	X	X	
122	E-3410	Terminal Block		X			
121	E-236A	Aquastat		×			
19	E-009A	Contactor, 30-Amp, 2 Pole	X				
120	E-009G	Tri-Block Overload (Hi Ambient)	OUTDOOR APPLICATIONS				
20	E-009E	Tri-Block Overload	×	X	X	X	
1	E-2560	Sequencer 4 Stage				X	

			FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	FD/UD FS/US
CODE	PART		40A, 63A 75A, 114A 145A 199A 245A	39G, 62G 72G, 110G 140G, 192G 240G	42W 67W 86W 127W 160W 219W 267W	88C 139C 173C 190C 237C 305C 386C 411C
NO.	NO.	DESCRIPTION OF PART	<u>.</u>			
21	E-009F	Contactor, 30-Amp, 3 Pole	X	x	Х	Х
22	E-010A	N/O Auxiliary Contact	X	x	Х	Х
22	E-010B	N/C Auxiliary Contact	X	X	X	Х
23	E-0100	Contactor, 40-Amp, 3 Pole	X	X	X	X
24	E-0110	Contactor, 25-Amp, 3 Pole	x	x	Х	x
25	E-0120	Contactor, 30-Amp, 4 Pole	X	х	X	x
26	E-0130	Control Voltage Relay & Sentinal	x	X	x	x
	E-0140	Humidifier Blower Relay, VERTICAL ONLY				
27	E-0150	Dual Unit Relay, 8 Pole	x	x	×	X
28	E-0160	Wet Bulb Relay	x	X	×	X
	E-0170	Buzzer for Sentinal System	x	X	×	X
29	E-0180	Humidity Sensor (Wafer Style)				
30	E-0200	Thermostat Potentiometer, Internal	×	X	X	X
31	E-0210	Return Air Sensor, Internal	×	X	X	
23	E-2500	Contactor, 208/230, 50-Amp, 3 Pole	x	X	X	X
	E-3350	Contactor, 25-Amp, 3 Pole 230-Volt Holding Coil	×	×	x	x
32	E-0350	Remote Bulb Temperature Control — Internal, STEAM REHEAT ONLY				x
33	E-0220	Room Sensor, Remote	x	, x	X	X
34	E-3080	Low Limit Thermostat, Remote Bulb — Internal Control ONLY	-			x
	E-0310	Proportional Thermostat, Remote Single				x
27	E-2440	Relay, 3-Pole				X
	E-2520	Condensate Transformer, 460-Volt to 230-Volt	×	x	x	x

			FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	FD/UD FS/US
		75A, 114A   72G, 11	39G, 62G 72G, 110G 140G, 192G 240G	110G 67W a, 192G 86W	88C 139C 173C 190C 237C 305C	
CODE NO.	PART NO.	DESCRIPTION OF PART			267W	386C 411C
123	E-2430	Disconnect 240-Volt Square D		X		
123	E-2920	Disconnect 600-Volt Square D		X		
	E-0320	Proportional Thermostat, Remote Dual				x
35	E-0230	Sentinal Thermostat — High Temperature	x	x	x	x
35	E-0240	Sentinal Thermostat — Low Temperature	x	x	x	x
36	E-0330	Sentinal Humidistat — High Humidity	X	х	X	x
36	E-0340	Sentinal Humidistat — Low Humidity	x	x	X	x
37	E-0360	Sequencer, 8 Stage	<b>x</b> .	x	x	
38	E-0370	Signal Center	x	x	X	
39	E-0400	Terminal Block	X	x	x	×
39	E-1930	Terminal Block, 208-Volt	x	x	x	×
40	E-0420	24 Piece Terminal Strip, Internal	x	x	X	×
41	E-0430	Filter Clog Indicator	x	x	х	x
41	E-043A	Filter Clog Indicator	x	x	х	. <b>x</b>
	E-0440	Tumbler Switch	x	x	x	x
42	E-0480	Remote On/Off Switch	x	x	х	x
43	T0100	Sentinal System (Liebert)	x	×	x	×

			FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	
			40A, 63A 75A, 114A 145A 199A 245A	39G, 62G 72G, 110G 140G, 192G 240G	127W 160W	88C 139C 173C 190C 237C	
NO		DESCRIPTION OF PART			219W 267W	305C 386C 411C	
44	E-221	0 Lamps for On/Off Switch	x	X	х	X	_
44	E-222	Push Button Cap for Switch	x	x	X	x	
44	E-220	Main Fan Pilot Switch	x	x	X	×	
	E-0500	Alternating Switch	x	x	X	x	
45	E-0570	Red 24-Volt Indicator Light	/ x	x	X	×	
46	E-0580	Green 24-Volt Indicator Light	×	x	X	x	
47	E-0600	Amber 12-Volt Indicator Light	x	x	X	×	
47	E-060A	Amber 24-Volt Indicator Light	×	x	X	×	
48	E-0610	Green 12-Volt Indicator Light	×	x	X	x	
49		Heater Elements (Specify Size)	x	X	X	x	
50	E-1020	3-Gang 30-Amp, 250-Volt, Fuseblock	x	x .	<b>X</b>	×	
51	E-1030	Single 30-Amp, 250-Volt, Fuseblock	x	x	X	×	
50	E-1040	3-Gang, 30-Amp, 250-Volt, Fuseblock	x	x	X	×	
50	E-1050	3-Gang, 30-Amp, 600-Volt, Fuseblock	x	x	X	×	
51	E-1060	Single 30-Amp, 600-Volt, Fuseblock	x	x	X	x	
50	E-1870	3-Gang, 60-Amp, 600-Volt, Fuseblock	x	x	x	x	
52	E-013A	Control Voltage Relay	x	×	x	x	
50	E-105A	3-Gang, 600-Volt, Fuseblock	x	x	x	x	
	E-1790	Glass Fuse, 10-Amp	x	x	x	x	
53	E-2760	Glass Fuse, GMQ 3.2-Amp	x	x	x	x	

			FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	
			40A, 63A 75A, 114A 145A 199A 245A	39G, 62G 72G, 110G 140G, 192G 240G	42W 67W 86W 127W 160W 219W	88C 139C 173C 190C 237C 305C	
CODE NO.	PART NO.	DESCRIPTION OF PART			267W	386C 411C	
26	E-0130	Shunt Relay for Fan Speed Control	x	х	x	×	
54	E-2640	Time Delay Relay for Fan Speed Control	x	×	x	×	
55	E-3240	R-500 Fan Speed Control	x	×	X	×	
55	E-3250	R-22 Fan Speed Control	×	x	X	x	

#### **HUMIDIFIER SECTION**

			FS/US	FD/UD	FD/UD	FD/UD
COD		DESCRIPTION OF PART	39G, 40A 42W, 62G 63A, 67W 88C	72G, 75A 86W, 110G 114A, 127W 139C, 140G 145A, 160W	173C 190C 237C 280C 192G 199A 219N 305C 386C	240G 245A 267W 411C
	_				3000	
		INFRARED HUMIDIFIER				
56	H-0010	10100010, 200, 100 101	X	х	X	x
56	F-0380		X	х	X	x
57	H-0020		x	х	X	x
57	H-002A		x			
57	H-0030	Quartz Lamps, 575-Volt	x	x	X	x
58	H-0040	Copper Float, Infrared	x	x	X	X
59	H-0050	Float Valve Assembly, Infrared	x	x	X	x
60	H-0070	Vertical Humidifier Blower, 208/230-Volt	×	x	x	×
61	F-026A	Humidifier Pan, FS ONLY	x			
61	F-0260	Humidifier Pan, FD ONLY		X	X	x
61	F-027A	Humidifier Pan, VERTICAL ONLY Rear Return		×	x	×
61	F-027B	Humidifier Pan, VERTICAL ONLY Front Return		X	X	×
61	F-027C	Humidifier Pan, VERTICAL ONLY Rear Return	×			
61	F-027D	Humidifier Pan, VERTICAL ONLY Front Return	×			
61	F-027E	Humidifier Pan, Vertical, 575-Volt, Rear Return	x			
61	F-027F	Humidifier Pan, Vertical, 575-Volt, Front Return	×			
62	R-013A	Thermostat Safety	x	x	X	х
110	H-0150	Spiral Tube 3"	x	x	x	x
111	P-3830	Spiral Tube Clamp	x	x	x	x
		IMMERSION HUMIDIFIER				
63	H-0210	Cartridge Heater, 480-Volt, 4000W	x	x	x	x
63	H-0220	Cartridge Heater, 575-Volt, 4000W	X .	x	x	x
63	H-0200	Cartridge Heater, 230-Volt, 4000W	x	x	x	x
64	H-0230	Humidifier Safety	x	x	x	x

#### **HUMIDIFIER SECTION**

			FS/US	FD/UD	FD/UD	FD/UD
CODE NO.	PART NO.	DESCRIPTION OF PART	39G, 40A 42W, 62G 63A, 67W 88C	72G, 75A 86W, 110G 114A, 127W 139C, 140G 145A, 160W	173C 190C 237C 280C 192G 199A 219N 305C 386C	240G 245A 267W 411C
		IMMERSION HUMIDIFIER	i			
65	E 20E0	•	×	x	X	x
65	F-3850	Humidifier Pan (H-24)				
65	F-2380	Humidifier Pan (Auto Flush)	X	X	X	X
66	H-0250	Humidifier Pan Gasket	X	X	X	X
67	H-0260	Copper Float	X	X	X	X
59	H-0050	Valve Assembly	X	X	X	X
	H-026A	•	X	X	X	X
68	H-0270	2-Way Motorized Valve (Rogers)	X	X	X	X
68	H-0280	3-Way Motorized Valve	X	X	X	X
69	H-0300	Motor Timer	X	X	X	X
70	H-0310	Control Switch	X	X	X	X
	H-0290	Spray Nozzles	X	X	X	x
	H-0080	Steam Humidifier	x	X	X	x
	F-4370	Steam Manifold Baffle	x	x	x	x
		LIEBERT INFRARED HUMIDIFIER		·		
	F-600E	Humidifier Pan	x		/	
	F-600C	Humidifier Reflector	x			
	F-6060	Humidifier Pan		x	X	x
	F-601C	Humidifier Reflector		х	x	x
	F-6070	Humidifier Sump	x	x	x	x
	P-4270	Victaulic Coupling	x	x	x	x
	H-0400	Auto Flush Assembly	х	x	x	x
•	H-0401	Auto Flush Module	x	x	x	x
					ı	

### LIEBERT CONTROLS AND SENSORS

			FD/UD FS/US	FD/UD FS/US	FD/UD FS/US	FD/UD FS/US
CODE NO.	PART NO.	DESCRIPTION OF PART	40A 75A 145A 199A 245A 63A 114A	39G 62G 72G 110G 140G 192G 240G	42W 67W 86W 127W 160W 219W 267W	88C 139C 173C 190C 237C 305C 386C
		DESCRIPTION OF PART				411C
104	T005L	Temperature Control — TC-23	X	×	x	
104	T001L	Temperature Control, 5 Stage — TU223	x	x	x	X
104	T002L	Temperature Control — TC12	x	x	x	x
104	T006L	Temperature Control — TU112 FS/US Only	x	x	x	x
	TB001	Temperature Control Bracket	x	x	x	x
	•	Note				
105	H003L	Humidity Control — HG-U	x	x	x	x
105	H03LT	Humidity Control — HG-T	x	x	x	x
105	H06LC	Humidity Control — HG-TK Conversion Kit	x	· x	x	x
	HB001	Humidity Control Bracket	x	x	x	x
	**	Note				
106	HS005	Humidity Sensor 33-41% (Cylinder)	x	x	x	x
106	HS006	Humidity Sensor 44-53% (Cylinder)	x	х	x	x
106	HS007	Humidity Sensor 59-69% (Cylinder)	x	х	x	x
107	TS002	Temperature Sensor (Cylinder)	x	x	x	x
	TS003	Temperature Sensor (Remote Cylinder)	x	x	х	x
	T4000	Liqui-Tect Sensor				
	50LGGT	Humidifier Tube				

<sup>\*</sup>TC-12 Are Replacements for TA-12 Temperature Controls TC-23 Are Replacements for TA-23 Temperature Controls

<sup>\*\*</sup>HG-T Are Replacements for HG Humidity Controls HG-TK Are Replacements for 3-45-6 Humidity Controls

### **GLYCOL CONDENSER SECTION**

			FS/US	UD/FD	UD/FD	UD/FD	UD/FD	UD/FD
			39G 62G	72G	110G	140G	192G	240G
CODE NO.	PART NO.	DESCRIPTION OF PART						
71	J-0040	Condenser	х	×				
71	J-0020	Condenser			×	×		
71	J-0110	Condenser					X.	×
72	P-0220	Globe Valve	x	X	x	x	x	
72	P-2910	Globe Valve						x
73	P-0230	Condenser Angle Valve	x	x	x	x	x	x
74	P-2830	Relief Valve, 400 Lb.	x	x	x		x	x
74	P-0240	Relief Valve, 350 Lb.				x		
75	P-3110	Regulating Valve 1"	x		x	x	×	
75	P-0260	Regulating Valve ¾"		X				
75	P-3450	Regulating Valve 11/4"				·		x
76	P-3020	Gate Valve ¾ " Sweat	x	x	x	x	x	x
75	P-0330	3-Way Regulating Valve ¾"	x	x				
75	P-0340	3-Way Regulating Valve 1"			x	×		
75	P-2780	3-Way Regulating Valve 11/4"					x	x

# WATER COOLED CONDENSER SECTION

			FD/UD FS/US	FD/UD	FD/UD	FD/UD
	·		42W, 67W 86W, 127W	160W	219W	267W
CODE NO.	PART NO.	DESCRIPTION OF PART				
71	J-0090	Water Cooled Condenser	x			
71	J-0040	Water Cooled Condenser		X		
71	J-0020	Water Cooled Condenser			x	
71	J-0110	Water Cooled Condenser				x
76	P-0220	Globe Valve	×	X	X	
76	P-2910	Globe Valve				x
73	P-0230	Receiver Valve	x	X	X	x
74	P-0240	Relief Valve, 350 Lb.	x	x	X	x
75	P-0260	Water Regulating Valve, ¾"	x			
75	P-3110	Water Regulating Valve, 1"		x	X	x
76	J-0060	Condenser Gaskets	x	x	X	×

### **GLYCOL & MISCELLANEOUS PUMPS**

			FS/US	FD/UD	FD/UD	FD/UD
CODE NO.	PART NO.	DESCRIPTION OF PART	39G, 40A 42W, 62G 63A, 67W 88C	72G, 75A 86W, 110G 114A, 127W 139C, 140G 145A, 160W	173C 190C 237C 280C 192G 199A 219W 305C 386C	240G 245A 267W 411C
77	P-2800	Glycol Pump, 208-Volt, 11/2 HP	×	x	x	x
77	P-2810	Glycol Pump, 230/460-Volt, 11/2 HP	x	х	x	x
77	P-2820	Glycol Pump, 208-Volt, 2 HP	x	X	X	×
77	P-3810	Glycol Pump, 230/460-Volt, 2 HP	x	x	x	x
77	P-2850	Glycol Pump, 208-Volt, 3 HP	x	x	x	x
77	P-2860	Glycol Pump, 208-Volt, 5 HP	x	x	X	x
77	P-2960	Glycol Pump, 230/460-Volt, 3 HP	x	x	X	x
77	P-2970	Glycol Pump, 230/460-Volt, 5 HP	x	x	X	x
		MISCELLANEOUS	-			
	X-0150	Condensate Pump	x	x	x	x

#### **REFRIGERATION SECTION**

			FS/US	FS/US	UD/FD	UD/FD	UD/FD	UD/FD	UD/FD
			39G 40A 42W	62G 63A 67W	72G 75A 86W	110G 114A 127W	140G 145A 160W	192G 199A 219W	240G 245A 267W
CODE NO.	PART NO.	DESCRIPTION OF PART							
78	P-0100	Expansion Valve	х		х				
78	P-0110	Expansion Valve		x		x			
78	P-0140	Expansion Valve					x		
78	P-0150	Expansion Valve						x	
78	P-2790	Expansion Valve							x
79	P-0070	Solenoid Valve	x	x	x	x			
79	P-0080	Solenoid Valve					x	x	
79	P-2870	Solenoid Valve							x
80	P-0030	Muffler	x	x	x	x			
80	P-0040	Muffler					x	x	
80	P-2900	Muffler			-				x
81	P-0050	Liquid Indicator	x	x	x	x	x	x ·	
81	P-2880	Liquid Indicator							x
82	P-0020	Filter Drier	x	x	x	x	x		
82	P-0060	Filter Drier						x	
82	P-2890	Filter Drier							x
83	P-0160	Solenoid Valve — Hot Gas Bypass (Optional)	x	x	x	x			
83	P-0080	Solenoid Valve — Hot Gas Bypass (Optional)					x	x	
83	P-0180	Discharge Valve — Hot Gas Bypass (Optional)			x	x			

#### **REFRIGERATION SECTION**

			FS/US	FS/US	UD/FD	UD/FD	UD/FD	UD/FD	UD/FD
	Ţ		39G 40A	62G 63A	72G 75A	110G 114A	140G 145A	192G 199A	240G 245A
CODE NO.	PART NO.	DESCRIPTION OF PART	42W	67W	86W	127W	160W	219W	267W
83	P-0190	Discharge Valve — Hot Gas Bypass					x	x	
83	P-0200	Discharge Valve — Hot Gas Bypass			x				
83	P-0210	Discharge Valve — Hot Gas Bypass					x		
	P-2060	Aux. Side Connector for Hot Gas Bypass	x	x	x	X	X	x	
85	P-0350	Crankcase Heaters	х	x	x	x			
85	P-1960	Crankcase Heaters					X	X	х
		Hi Head Pressure Alarms							
86	P-312A	Pressure Cutout Switch Air Cooled & Glycol, R-22 All 340 PSI			For A	All R-22	Only		
86	P-312B	Pressure Cutout Switch Water Cooled, R-500, 220 PSI			For A	// R-500	Only		
86	P-312C	Pressure Cutout Switch Air Cooled & Glycol, 245 PSI			For A	II R-500	Only		
86	P-3120	Pressure Cutout Switch Water Cooled, 305 PSI			For A	   NI <b>R-22</b> 	Only		

#### **REFRIGERATION SECTION**

			R-22	R-500	R-22	R-22	R-500
	<del>y</del>		All Water Cooled	All Water Cooled	All Air Cooled	All Glycol Cooled	All Glycol
CODE NO.	PART NO.	DESCRIPTION OF PART	Oooled	Cooled	Cooled	Cooled	& Air Cooled
84	P-001A	Pressure Switch Hi-Low, 240 PSI		x			
84	P-001B	Pressure Switch Hi-Low, 360 PSI			x	x	
84	P-001C	Pressure Switch Hi-Low, 265 PSI					x
84	P-0010	Pressure Switch Hi-Low, 325 PSI	x				
	P-3070	Pressure Switch Low #010 FSC	x	x	x	x	X
	P-308A	Pressure Switch Hi 265 Lb. 011 FSC		x			x
	P-3080	Pressure Switch Hi 360 Lb. 011 FSC	×		x	×	x

## **SYSTEM 1 REHEAT SECTION**

			FS/US	FS/US	UD/FD	UD/FD	UD/FD
CODE NO.	PART NO.	DESCRIPTION OF PART	39G 40A 42W	62G 63A 67W 88C	72G 75A 86W	208C, 110G 114A, 127W 139C, 140G 145A, 160W 173C, 190C 237C	411C 192G 199A 219W 305C 386C 240G 245A 267W
87	R-0470	Reheat Element, 208-Volt	X				
87	R-0480	Reheat Element, 230-Volt	X				
87	R-0490	Reheat Element, 460-Volt	X				
87	R-0500	Reheat Element, 575-Volt	X				
87	R-0450	Reheat Element, 400/416-Volt	X	X			
87	R-0430	Reheat Element, 208-Volt		X			
87	R-0440	Reheat Element, 230-Volt		X			
87	R-0460	Reheat Element, 575-Volt		X			
87	R-0390	Reheat Element, 208-Volt			X		
87	R-0400	Reheat Element, 230-Volt			X		
87	R-0540	Reheat Element, 400/416-Volt			x		
87	R-0410	Reheat Element, 460-Volt			x		
87	R-0420	Reheat Element, 575-Volt			×		
87	R-0280	Reheat Element, 208-Volt				x	
87	R-0290	Reheat Element, 230-Volt				X	
87	R-0550	Reheat Element, 400/416-Volt				X	
87	R-0300	Reheat Element, 460-Volt				X	
87	R-0310	Reheat Element, 575-Volt				x	
87	R-0320	Reheat Element, 208-Volt					×
87	R-0330	Reheat Element, 230-Volt					×
87	R-0560	Reheat Element, 400/416-Volt					×
87	R-0340	Reheat Element, 460-Volt					×
87	R-0350	Reheat Element, 575-Volt					×
88	R-0130	Reheat Safety	x	x	x	x	×
62	R-013A	Thermostatic Safety	x	x	x	x	x

### **CHILLED WATER SECTION**

			FS/US	FD/UD	FD/UD	FD/UD
			88C	139C, 173C 190C, 237C 280C	305C 386C	411C
CODE NO.	PART NO.	DESCRIPTION OF PART				
89	L-0100	Chilled Water Coil, 4 Row (88C)	х			
89	L-0080	Chilled Water Coil, 4 Row (190C)		×		
89	L-0020	Chilled Water Coil, 6 Row (237-280C)		x		
89	L-0090	Chilled Water Coil, 6 Row (305C)			X	
89	L-0040	Chilled Water Coil, 6 Row (386C)			X	
89	L-0110	Chilled Water Coil (411C)				X
90	M-0010	Modutrol Motor	x	x	X	x
90	M-0020	Modulated Motor, Steam Reheat	x	x	X	x
91	M-0030	End Switch (W/2 SPDT Micro Switch)	x	x	X	x
92	M-0040	Valve Linkage	x	x	X	. <b>X</b>
92	M-0050	Valve Linkage	x	x	X	x
93	M-0060	Auxiliary Potentiometer	x	x	x	x
93	M-0090	Minimum Position Potentiometer	х	x	x	x
91	M-0080	End Switch	х	x	x	x
94	P-0310	3-Way Valve, 11/4 "	х	x	x	x
94	P-0300	3-Way Valve, 1"	x	x	x	x
89	L-0010	Chilled Water Coil, 6 Row (173C)		×		
89	L-0070	Chilled Water Coil, 4 Row (139C)		×		

## WINTER CONTROL SECTION

			FS/US	FS/US	UD/FD	UD/FD	UD/FD	UD/FD	UD/FD
			40A	63A	75A	114A	145A	199A	245A
CODE NO.	PART NO.	DESCRIPTION OF PART							
-	W-0230	Winterizer Control Valve	x	×	x	x	×	x	x
	W-0240	110-Volt Heater Pads for Winterizer	x	×	x	x	×	x	x
	W-0250	220-Volt Heater Pads for Winterizer	x	×	×	X	. <b>x</b>	×	×
95	W-0040	Receiver	×		x				
95	W-0050	Receiver		×		x	×		
95	W-0060	Receiver		x				×	x
96	W-0070	Bell Box w/Cover Lee Temp	X	x	x	×	×	X	x
97	W-0080	3-Way Control Valve Lee Temp					x		
97	W-0270	3-Way Control Valve Lee Temp	x	x	×	x		x	X
98	W-0090	% " Check Valve, Lee Temp	x	x	×	×	×	x	x
99	W-0100	1/2" Rota-Lock Valve	x	×	×	×	×	x	x
100	W-0140	Liquid Indicator — Bullseye	x	×	x	×	×	x	X
101	W-015L	Silicone Heaters Lee Temp, 115-Volt	×	×	×	x	×	×	x
101	W-015R	Silicone Heaters Lee Temp, 115-Volt	x	x	×	×	×	×	x
101	W-016L	Silicone Heaters Lee Temp, 220-Volt	x	×	×	×	x	x	x
101	W-016R	Silicone Heaters Lee Temp, 220-Volt	x	×	×	×	x	×	×
102	W-017A	350 Lb. Relief Valve					X		
102	W-0170	400 Lb. Relief Valve	x	×	×	×		x	×
	W-0180	Head Pressure Control Valve Limitizer	x	x	x	×	×	x	×

## WINTER CONTROL SECTION

			FS/US	FS/US	UD/FD	UD/FD	UD/FD	UD/FD	UD/FD
			40A	63A	75A	114A	145A	199A	245A
CODE NO.	PART NO.	DESCRIPTION OF PART		·					
	W-0190	Receiver Brackets Limitizer			х				·
	W-0200	Receiver Brackets Limitizer	x			x	x		
	W-0210	Receiver Brackets Limitizer		X		·		x	x
	W-0220	%" Check Valve Limitizer	×	x	x	x	x	х	x
	W-0350	<sup>7</sup> 8 " Head Pressure Control Valve			·		X		
	W-0340	% " Head Pressure Control Valve	x	x	x	x		x	x
	W-0320	Teflon Seal (O Rings) %"	x	x	x	x	x	x	x
	W-0330 \	Teflon Seal (O Rings) ¾"	x	x	x	x	x	x	x

### **DOWN FLOW AND VERTICAL COIL SECTION**

		· · · · · · · · · · · · · · · · · · ·	FS/US	FS/US	UD	FD
CODE NO.	PART NO.	DESCRIPTION OF PART	39G, 40A 42W	62G, 63A 67W	72G 75A 86W	72G 75A 86W
103	X-0130	DX Coil	x			
103	X-0120	DX Coil		×		
103	X-0050	DX Coil			x	
103	X-0010	DX Coil				x
	1	L	I			
			UD	FD	UD	FD
	<b>r</b>		110G 114A 127W	110G, 114A 127W	140G 145A 160W	140G 145A 160W
103	X-0060	DX Coil	х			
103	X-0020	DX Coil		x		
103	X-0070	DX Coil			X	
103	X-0030	DX Coil				x
			UD	FD	UD	FD
			192G 199A 219W	192G, 199A 219W	240G 245A 267W	240G 245A 267W
103	X-0080	DX Coil	х			
103	X-0040	DX Coil		x		
103	X-0140	DX Coil			x	
3	X-0100	DX Coil				x

## **RECORDER & MISCELLANEOUS SECTION**

			FS/US	FD/UD	FD/UD	FD/UD
CODE	PART		39G, 40A 42W, 62G 63A, 67W 88C	72G, 75A 86W, 110G 114A, 127W 139C, 140G 145A, 160W	173C 190C 237C 280C 192G 199A 219W 305C	240G 245A 267W 411C
NO.	NO.	DESCRIPTION OF PART			386C	
	K-0010	7 Day Recorder, 60 CY, 110-Volt	x	x	x	x
	K-0020	24 Hour Recorder, 60 CY,	x	x	x	×
	K-0030	Recorder Charts	x	x	X	X
	K-0040	Blue Recorder Ink	x	x	x	x
	K-0050	Red Recorder Ink	×	x	x	X
	K-0060	7 Day, 50 CY Recorder, 240-Volt	×	x	x	X
	K-0070	7 Day Recorder Motor, 110-Volt	x	x	x	x
	K-0080	24 Hour Recorder Motor, 110-Volt	x	×	x	x
	K-0090	7 Day Recorder Motor, 240-Volt	x	×	x	X
		MISCELLANEOUS				
	S-0320	Panel Wrenches	x	x	x	X
	S-0130	Vibration Pads — Floor Stands	x	x	x	X
	S-1090 S-1100	Touch Up Paint (All Colors)	X	X X	××	×

## **EXTERIOR PANEL SECTION**

	NA 1 11 14	MBER OF UNIT MUST BE INCLUDED	FS/US	FD/UD	FD/UD	FD/UD
SEF W	(IAL NUI	ORDERS FOR EXTERIOR PANELS	39G, 40A 42W, 62G 63A, 67W 88C	72G, 75A 86W, 110G 114A, 127W 139C, 140G 145A, 160W	192G 199A 219W 305C 386C	240G 245A 267W 411C
CODE NO.	PART NO.	DESCRIPTION OF PART		173C, 190C 237C, 280C		
	U-1	Main Accent Internal	X			
	U-2	Main Accent Remote	X			
	U-3	Compressor End Panel	x	X	X	×
	U-4	Coil End Panel	x	x	×	×
	U-5	Filter End Panel	x	x	×	X
	U-6	Front Middle Panel	x			
	U-7	Front Bottom Panel	x			
	U-8	Small Accent Panel	x	X	×	X
	U-9	Vertical Front Middle (Old Style)	x			
	U-10	Vertical Front Bottom (Old Style)	x			
	U-11	Vertical Front Middle	x			
	U-12	Vertical Front Bottom	x			
	U-13	Main Accent Internal		x		
	U-14	Main Accent Remote		x		
	U-15	Front Middle Panel		x		
	U-16	Front Bottom Panel		x		
	U-17	Vertical Front Middle (Old Style)		x		
	U-18	Vertical Front Bottom (Old Style)		x		
	U-19	Vertical Front Bottom		x	·	
	U-20	Vertical Front Middle		x		
	U-21	Main Accent Internal			x	
	U-22	Main Accent Remote			×	
	U-23	Front Middle Panel			x	

SE	RIAL NU	JMBER OF UNIT MUST BE INCLUDED	FS/US	FD/UD	FD/UD	FD/UD
	WITH ALL ORDERS FOR EXTERIOR PANELS		39G, 40A 42W, 62G 63A, 67W 88C	72G, 75A 86W, 110G 114A, 127W 139C, 140G	305C	240G 245A 267W 411C
CODE NO.	PART NO.	DESCRIPTION OF PART		145A, 160W 173C, 190C 237C, 280C	386C	
	U-24	Front Bottom Panel			x	
	U-25	Vertical Front Middle (Old Style)	÷		X	
	U-26	Vertical Front Bottom (Old Style)			X	
	U-27	Vertical Front Bottom			X	
	U-28	Vertical Front Middle			x	
	U-29	Main Accent Internal				X
	U-30	Main Accent Remote				x
	U-31	Front Middle Panel				X
	U-32	Front Bottom Panel				x
	U-33	Vertical Front Middle (Old Style)				x
	U-34	Vertical Front Bottom (Old Style)		:		x
	U-35	Vertical Front Middle				Х
	U-36	Vertical Front Bottom				x
		Panels Will Be Assembled with Insulation and Fasteners				

# **BLOWER AND HUMIDIFIER ASSEMBLY**

		ADDE OF HAUT MUST BE INCLUDED	FS/US	FD/UD	FD/UD	FD/UD
WITH ALL ORDERS FOR BLOWER AND HUMIDIFIER ASSEMBLIES		39G, 40A 42W, 62G 63A, 67W 88C	72G, 75A 86W, 110G 114A, 127W 139C, 140G 145A, 160W	192G 199A 219W 305C 386C	240G 245A 267W 411C	
DE .	PART NO.	DESCRIPTION OF PART		178C, 190C 237C, 280C		
	U-50	Main Fan Assembly	X			
	U-51	Main Fan Assembly		x		
	U-52	Main Fan Assembly			x	
	U-53	Main Fan Assembly				X
	*	Note				
	U-60	Infrared Humidifier Assembly	x			
	U-61	Infrared Humidifier Assembly	·	X	X	X
	U-62	Vertical Infrared Humidifier Assembly	x		·	
	U-63	Vertical Infrared Humidifier Assembly		X	X	X
	**	Note				
	DE	WITH A H H H H H H H H H H H H H H H H H H	HUMIDIFIER ASSEMBLIES  DESCRIPTION OF PART  U-50 Main Fan Assembly  U-51 Main Fan Assembly  U-52 Main Fan Assembly  U-53 Main Fan Assembly  * Note  U-60 Infrared Humidifier Assembly  U-61 U-61 U-62 Vertical Infrared Humidifier Assembly  U-63 Vertical Infrared Humidifier Assembly	WITH ALL ORDERS FOR BLOWER AND HUMIDIFIER ASSEMBLIES  39G, 40A 42W, 62G 63A, 67W 88C  DESCRIPTION OF PART  U-50 Main Fan Assembly  U-51 Main Fan Assembly  U-52 Main Fan Assembly  * Note  U-60 Infrared Humidifier Assembly  U-61 Infrared Humidifier Assembly  U-62 Vertical Infrared Humidifier Assembly  X  Vertical Infrared Humidifier Assembly  X  Vertical Infrared Humidifier Assembly  X  Vertical Infrared Humidifier Assembly	ERIAL NUMBER OF UNIT MUST BE INCLUDED WITH ALL ORDERS FOR BLOWER AND HUMIDIFIER ASSEMBLIES  39G, 40A 42W, 62G 63A, 67W 114A, 127W 139C, 140G 145A, 160W 178C, 190C 237C, 280C  U-50 Main Fan Assembly  U-51 Main Fan Assembly  V-52 Main Fan Assembly  * Note  U-60 Infrared Humidifier Assembly  U-61 Infrared Humidifier Assembly  Vertical Infrared Humidifier Assembly  X  X  X  X  X  X  X  X  X  X  X  X  X	### PART NO.   DESCRIPTION OF PART   1926   1936

<sup>\*</sup>Main Fan Assembly Includes Bearings, Wheel w/ Housing and Shaft Completely Assembled

<sup>\*\*</sup>Humidifier Assembly Does Not Include Electric Panel Components

# **SYSTEM 2 REHEAT ELEMENTS**

			UD/FD	UD/FD	UD/FD	UD/FD	UD/FI		
	T		72G 75A 86W	110G 114A 127W	140G 145A 160W	192G 199A 219W	240G 245A		
CODE NO.	PART NO.		173C	190C	237C	305C	267W 386C 411C		
	R-0710	Reheat Element, 208-Volt, 50 & 60 HZ	X						
	R-0720	Reheat Element, 230-Volt, 50 & 60 HZ	X			:			
	R-0730	Reheat Element, 400-Volt, 50 HZ	X	·					
	R-0740	Reheat Element, 460-Volt, 50 & 60 HZ	x						
	R-0750	Reheat Element, 575-Volt, 60 HZ	x						
	R-0760	Reheat Element, 208-Volt, 50 & 60 HZ		x					
	R-0770	Reheat Element, 230-Volt, 50 & 60 HZ		x					
	R-0780	Reheat Element, 400-Volt, 50 HZ		x					
	R-0790	Reheat Element, 460-Volt, 50 & 60 HZ		x		1			
	R-0800	Reheat Element, 575-Volt, 60 HZ		x					
	R-0810	Reheat Element, 208-Volt, 50 & 60 HZ			×				
1	R-0820	Reheat Element, 230-Volt, 50 & 60 HZ	-		x				
	R-0830	Reheat Element, 400-Volt, 50 HZ			x				
	R-0840	Reheat Element, 460-Volt, 50 & 60 HZ			x				
	R-0850	Reheat Element, 575-Volt, 60 HZ			x				
	R-0860	Reheat Element, 208-Volt, 50 & 60 HZ				x			
	R-0870	Reheat Element, 230-Volt, 50 & 60 HZ				x			
	R-0880	Reheat Element, 400-Volt, 50 HZ				x			
11	R-0890	Reheat Element, 460-Volt, 50 & 60 HZ				x			
11	R-0900	Reheat Element, 575-Volt, 60 HZ				x			
	R-0910	Reheat Element, 208-Volt, 50 & 60 HZ				^	Х		
F	R-0920	Reheat Element, 230-Volt, 50 & 60 HZ					X		
F	R-0930	Reheat Element, 400-Volt, 50 HZ					×		
F	R-0940	Reheat Element, 460-Volt, 50 & 60 HZ					X		
F	R-0950	Reheat Element, 575-Volt, 60 HZ					X		
F	R-0130	Reheat Safety	х	x	x	x	X		
R	R-013A	Thermostatic Safety	x	x	x	x	×		