

## Centrifugal Chiller

PEH

Size: 063

PE

Sizes: 063; 150 - 225

TEH

Size: 063



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# Parts List Revision History

Revision	Date	Description
A - DD EE	05/2012	<p>Revision History archived.</p> <p>Page 4 - Added page with information for "Other Centrifugal Model Numbers".</p> <p>Page 79 - Corrected p/n for Ref. 11 Channel Clamp, was 735073101. Fixed New Way schematic graphic, was not displaying properly.</p> <p>Page 108 - Corrected note 1 to see "Compr. 1966-84 Rev. 0,A- Mtr Repl &amp; Retrofit" page.</p> <p>Page 115 - Moved and revised "Compr 1966-84 Rev. 0,A- Mtr Repl &amp; Retrofit" page from p. 109 to p. 115.</p> <p>Page 116 - Updated notes to "See Compr 1966-84 Rev. 0,A- Mtr Repl &amp; Retrofit" page.</p> <p>Page 124 - Changed reference for Ref. 602 &amp; 603 to "See LS Shaft/Key Table".</p> <p>Page 130 - Changed descriptions for Ref. 602 &amp; 603 to include "Low Speed Shaft". Updated footnote to refer to "diagram for Compressor 1985-1966 (Rev. B) Gear Train".</p> <p>Page 131 - Moved and revised "Compr 1985-96 Rev. B- Mtr Repl &amp; Retrofit" page from p. 118 to p. 131.</p> <p>Pages 132 &amp; 133 - Updated notes to "See Compr 1985-96 Rev. B- Mtr Repl &amp; Retrofit" page.</p> <p>Page 134 - Moved "Compr 1996-Present: Mtr Repl &amp; Retrofit" info to new page 150.</p> <p>Page 135 - Added footnote 1 tag to Ref. # 208. Added footnote 1.</p> <p>Page 136 - Added footnote 1 tag to Ref. # 362, 371. Added footnote 1.</p> <p>Page 138 - Added footnote 1 tag to Ref. # 202, 203, 204, 205, 206, 207. Added footnote 1.</p> <p>Page 140 - Corrected p/n for Ref. 100 Impeller M, was 074370192. Removed all M Impeller footnote info. Added footnote 1 tag to Ref. # 355, 360, 363, 368. Added footnote 2 tag to Ref. # 361. Added footnote 3 tag to Ref. # 364, 369, 374, 368. Added footnotes 1, 2, 3.</p> <p>Page 144 - Added footnote 1 tag to Ref. # 365, 367, 374, 375. Added footnote 2 tag to Ref. # 366. Added footnotes 1, 2.</p> <p>Page 146 - Added footnote 1 tag to Ref. # 370, 376, 641(360 Fr Mtr), 643, 650. Added footnote 2 tag to Ref. #s 370, 376, 641(440 Fr Mtr), 643, 650. Added footnote 3 tag to Ref. # 372. Added footnotes 1, 2, 3.</p> <p>Page 147 - Added footnote 1 tag to Ref. # 370, 376, 641(15" Mtr), 643, 650. Added footnote 2 tag to Ref. #s 370, 376, 641(20" Mtr), 643, 650. Added footnote 3 tag to Ref. # 372. Added footnotes 1, 2, 3.</p> <p>Page 150 - Added page for "Compr 1996- Present: Rev. C,D- Mtr Repl &amp; Retrofit".</p> <p>Pages 151 thru 156 - Updated notes to "See Compr 1996-Present: Rev. C,D- Mtr Repl &amp; Retrofit" page.</p>

## Other Centrifugal Models

This Replacement Parts List can be used to identify components for the Compressor, Control Panel, Oil Pump, Condenser, and Evaporator on the following unit models:

Open Drive Chillers: PG, PEA\*, PEL, PLA

Heat Recovery Chillers: PH, PHH, PJ, PJH, PHA, PLH

Condensing Units: SE, SEH, SEA\*

Templifiers: TPE, TEH, TEA, TFH, TPF, THH, TPH, THA, TPJ, TJH

\* For models PEA/SEA 050-100 also see RPL 552298.

Consult Daikin McQuay Parts for identification of other components on these models.

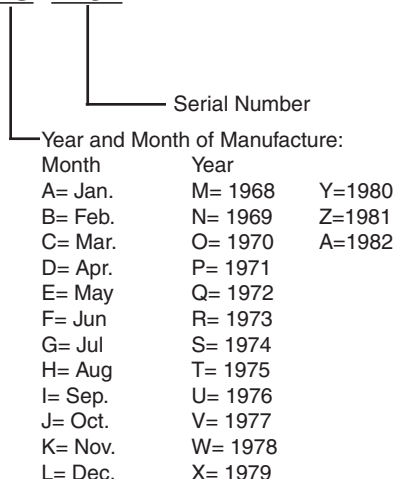
# Nomenclature

## Westinghouse Units- Beginning- 1982

### Serial Numbers

**Beg. - 1982**

**AU 1234**



### Unit Shop Order Number

**ex. PE1986**

The Shop Order Number (called the "style number" in earlier years) was a 6 digit number that appeared on the unit data plate of all units built during the Westinghouse era. This number is the one number that allows Daikin McQuay Parts access to the original job file and Bill-of-Material. It is crucial that the field supply this number when inquiring about parts identification or when original unit data information is required. The Shop Order number is also key when requesting R134a retrofit information.

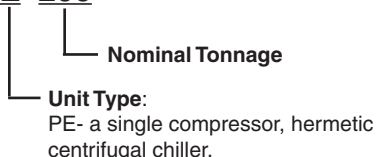
### Unit Style Number

**ex. 359A777G10**

The Style Number was a 10 digit number that appeared on the unit data plate of units built in the Westinghouse era's later years . This number is the highest level bill of material number for the specific unit.

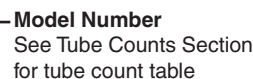
### Unit Model Number

**PE 200**



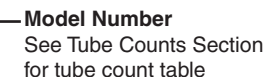
### Condenser Model Number

**KB274**



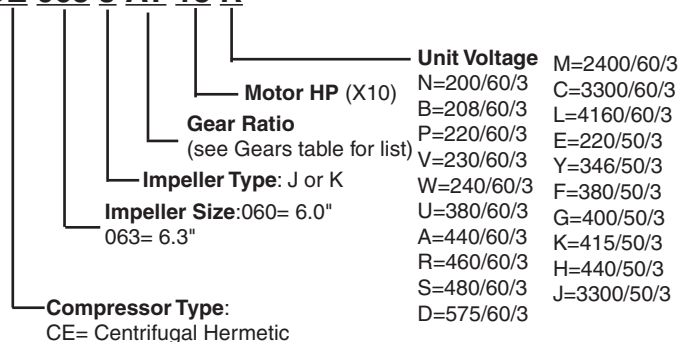
### Evaporator Model Number

**TC260**



### Compressor Model Number

**CE 063 J AY 18 R**

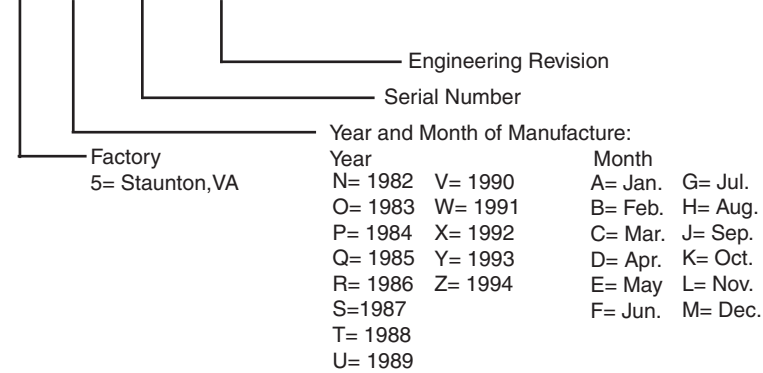


# Nomenclature

## Serial Numbers for McQuay Units: 1982- Present

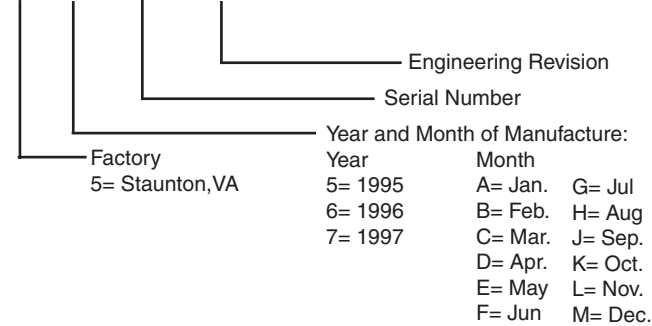
### 1982-1994

**5 ZA 12345 00**

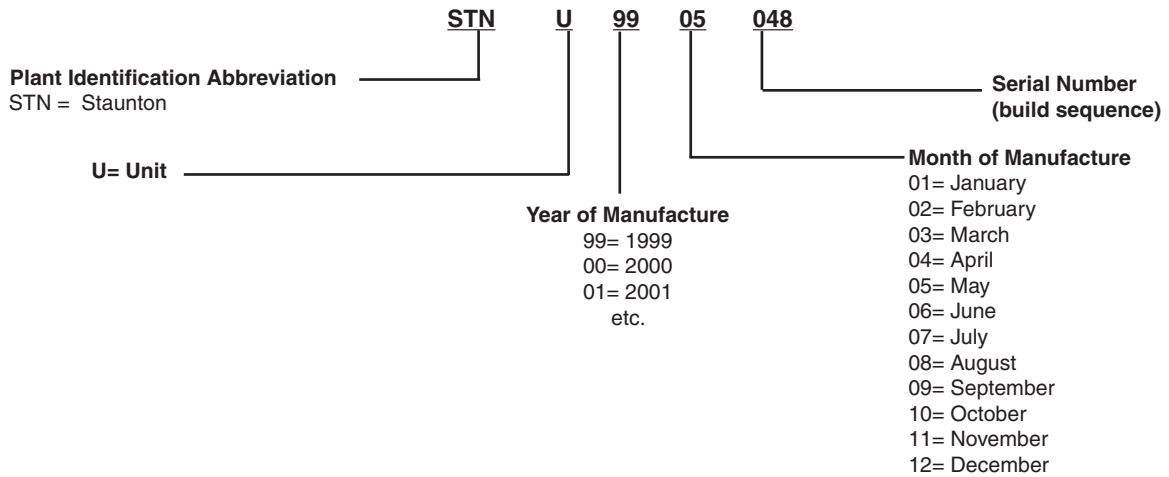


### 1995- February, 1999

**5 5A 12345 00**



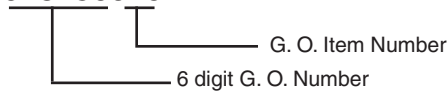
### February, 1999 and later



# Nomenclature

## Style Numbers for McQuay Units: 1982- Present

**Unit Style Number - 1983- Present**  
**(On all Unit Data Plates): 0923456010**



**Unit Style Number - 1982**  
**1PE6655G01**

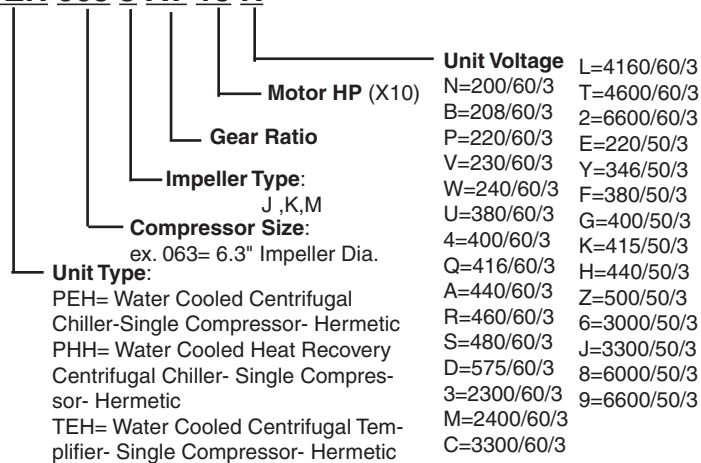


# Nomenclature

## Unit Model Breakdown for McQuay Units: 1982- Present

**Unit Model Number**

**PEH 063 J AY 18 R**

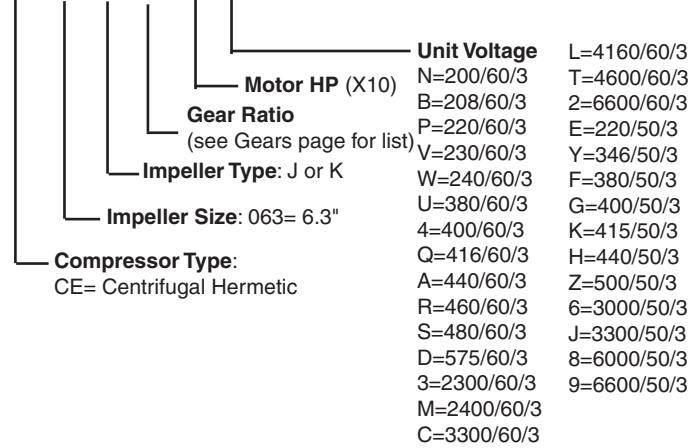


# Nomenclature

## Component Breakdown for McQuay Units: 1982- Present

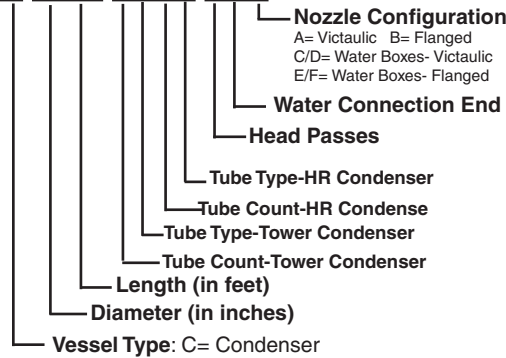
### Compressor Model Number

**CE 063 J AY 18 R**



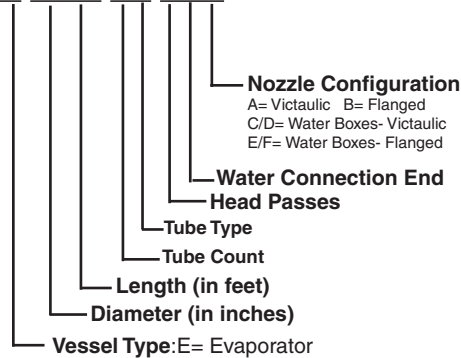
### Condenser Model Number

**C 2212 3CYY 2RA**



### Evaporator Model Number

**E 2212 3C 2RA**





# Unit Assembly Components

## 1966 - 1981

Qty.	Description-----	Part Number
<b>Expansion Valves</b>		
1	Model 150, 160-----	735048624
1	Model 180, 200, 225-----	735048626
	OR	
2	Model 180, 200, 225-----	735048609
	Gasket Kit for above Valves-----	735048675
1	Float Valve (used until 5/74)-----	735012801*
	Pilot Expansion Valve (after 5/74)-----	735048618
*If retrofit of the Float Valve is required contact Daikin McQuay Parts for retrofit information.		
<b>Check, Service, and Shut Off Valves</b>		
1	Discharge Check Valve- Until SN DP8513---	735040307
1	Discharge Check Valve- After SN DP8513---	735040334
1	Motor Cooling Check Valve-----	735040305
<b>Relief Valves &amp; Components</b>		
1	Evaporator Relief Valve-----	735045808
1	Three Way Valve- Condenser Relief-----	735039946
2	Condenser Relief Valve- 180PSI-----	735045811
1	Service Valve- Condenser Relief-----	735039929
<b>Oil Cooler</b>		
1	Oil Cooler- until CM9726-----	735099227
1	Oil Cooler- after CM9726-----	735075103
<b>King Valve &amp; Components</b>		
1	King (Main Liquid) Valve-----	735039811
1	Valve Gasket-----	735043547
1	Valve Adapter-----	735049702
1	Valve Flange Kit-----	735016407
<b>Miscellaneous Components</b>		
2	Filter Drier-----	735028808
1	Victaulic Coupling- Suction Line-----	070193905
1	Victaulic Coupling Gasket- Suction Line-----	070194005
1	Discharge Check Valve Gasket-----	735013060

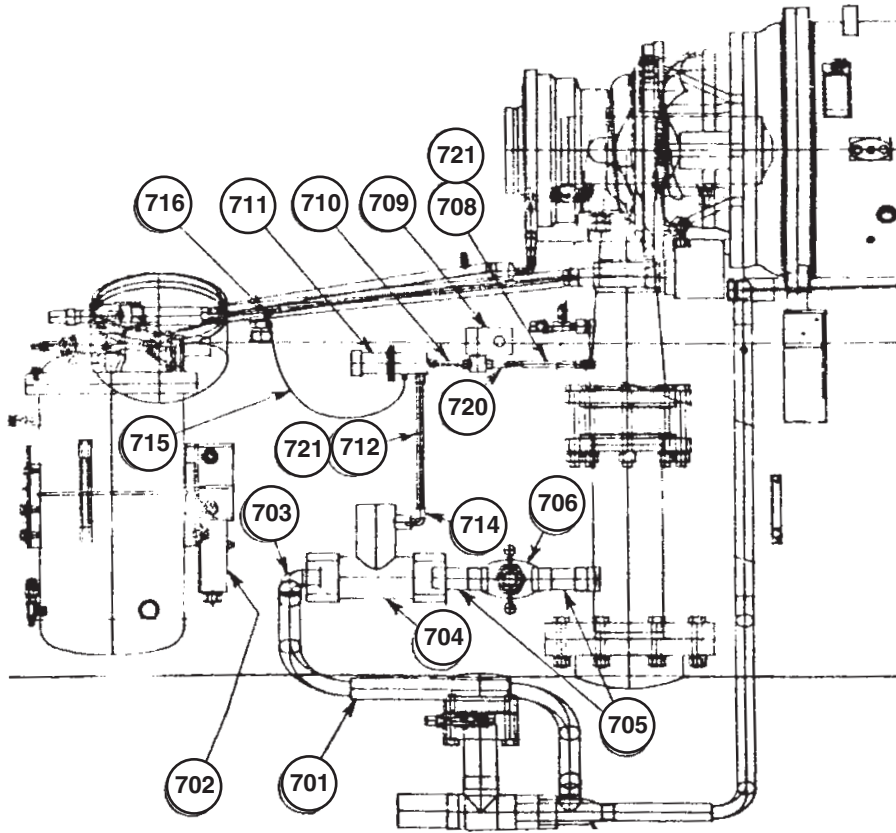
# Unit Assembly Components

## 1982 - 1988

Qty.	Description-----	Part Number
<b>Expansion Valves</b>		
1	Pilot TXV-----	735048618
1	Main Expansion Valve- 300 Tons-----	735048627*
1	Main Expansion Valve- 250 Tons-----	735048626*
1	Main Expansion Valve- 200 Tons-----	735048624*
	* Gasket Kit for these valves- 735048675	
<b>Check, Service, and Shut Off Valves</b>		
1	Oil Cooler Check Valve-----	735040305
1	Discharge Check Valve-----	735040334
1	Evaporator Service Valve-----	735039929
1	Motor Cooling Shut Off Valve-----	735039929
<b>Relief Valves &amp; Components</b>		
1	Evaporator Relief Valve-----	735045808
1	Three Way Valve- Condenser Relief-----	735039946
2	Condenser Relief Valve- 180PSI-----	735045811
1	Service Valve- Condenser Relief-----	735039929
<b>Oil Cooler</b>		
1	Oil Cooler-----	735075107
1	Oil Cooler Solenoid Valve-----	735048445
1	Oil Cooler TXV- Alco (until '87)-----	735048634
1	Oil Cooler TXV- Sporlan (after '87)-----	070301501
<b>King Valve &amp; Components</b>		
1	King (Main Liquid) Valve-----	735039811
1	Valve Gasket-----	735043547
1	Valve Adapter-----	735049702
1	Valve Flange Kit-----	735016407
<b>Hot Gas Bypass</b>		
1	Regulator Valve-----	735077202
1	Solenoid Valve-----	735048430
1	Expansion Valve-----	735048609
1	Thermostat-----	735005217
<b>Miscellaneous Components</b>		
2	Filter Drier-----	735028813
1	Motor Cooling Line Gasket-----	735013059
1	Oil Supply Line Flange-----	744190301
1	Oil Supply Line Flange Gasket-----	735013024
1	Oil Return Line Gasket-----	735013036
1	Victaulic Coupling- Suction Line-----	070193905
1	Victaulic Coupling Gasket- Suction Line-----	070194005
1	Discharge Check Valve Gasket-----	735013037

# Unit Assembly Components 1988- 1993

## Hot Gas Bypass

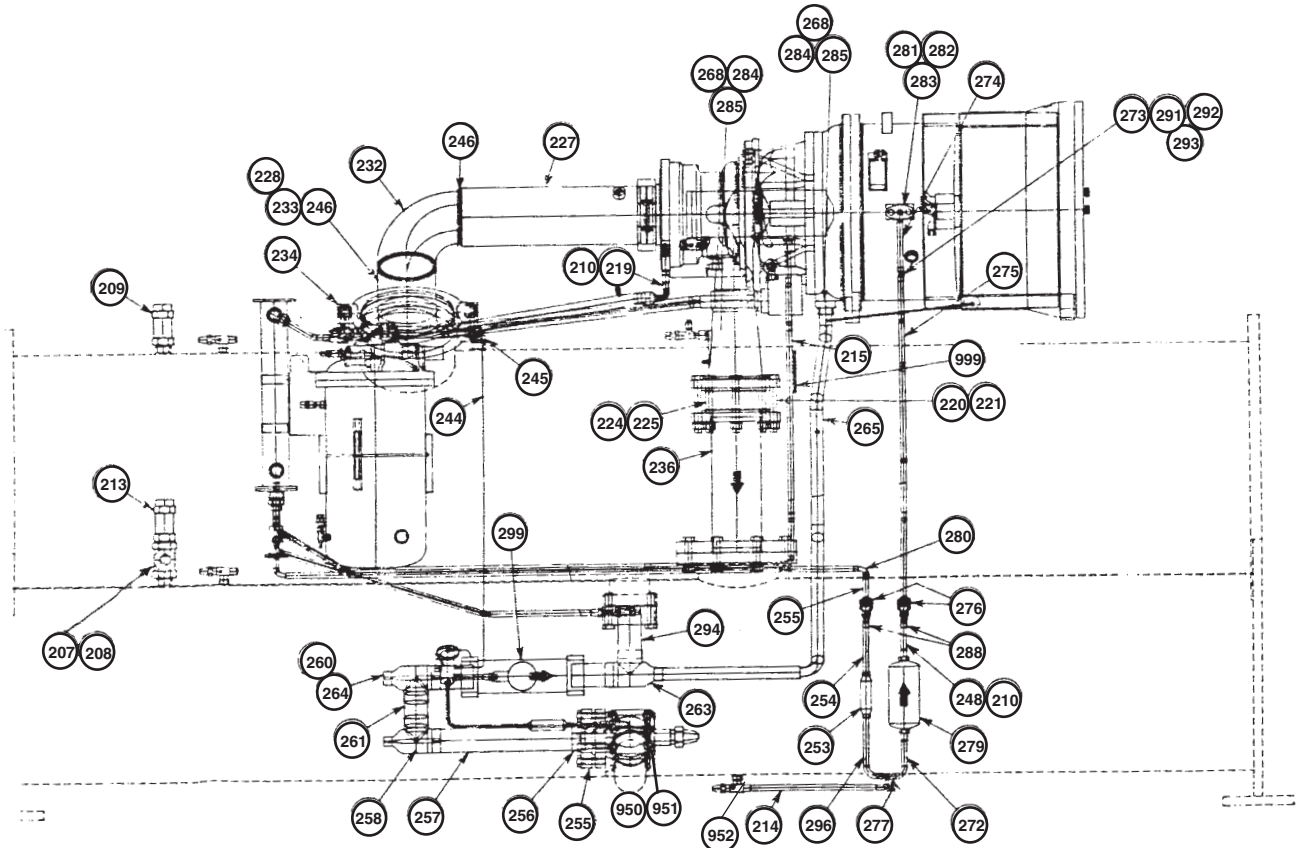


### Hot Gas Bypass

Ref #	Qty.	Description	Part Number
701	1	Tube- Hot Gas 16"/20"/22" Evaporator	072243801
		26" Evaporator	070356801
702	1	Tube- Hot Gas 16"/20"/22" Evap. Only	072243901
703	1	Elbow	041117408
704	1	Hot Gas Expansion Valve	735048609
		Expansion Valve Gasket Kit	735048676
705	2	Tube	070400703
706	1	Shut Off Valve	735039963
708	1	Tube	070400805
709	1	Solenoid Valve	735048430
710	1	Tube- Hot Gas	070251001
711	1	Hot Gas Bypass Regulator Valve	735077202
712	1	Tube 16"/20"/22" Evaporator	070400806
		26" Evaporator	070400807
714	1	Elbow	047350609
715	1	T Ass'y	735061431
716	1	T	041117803
720	1	Tube	735051805
721	2	Flare Nut	000136100

# Unit Assembly Components 1988- 1993

## Front View- Part One



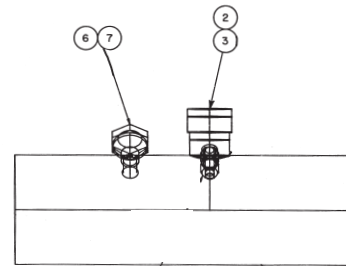
Ref #	Qty.	Description	Part Number
207	1	Condenser 3-Way Shut Off Valve	735039946
208	1	Pipe Nipple w/o Sound Insulation	735031797
		w/ Sound Insulation	071935501
209	1	Evaporator Relief Valve	735045808
210	2	Flare Nut	000140300
213	2	Condenser Relief Valve- 180# (std.)	735045811
214	1	Tube Ass'y Stack: 1616/2018/2218	071545905
		Stack: 2222/2622	071545908
215	1	Oil Tube Ass'y Stack: 1616/2018/2218/2222	070011501
		Stack: 2622	070011502
219	1	Tube	735063026
220	8	Discharge Check Valve Screw 225# Cond. Ref. Pressure (std.)	735033972
		250-300# Cond. Ref. Press. (high)	735033974
221	12	Nut	735029608
224	1	Discharge Check Valve 225# Cond. Ref. Pressure (std.)	735040334
		250-300# Cond. Ref. Press. (high)	735040307
225	2	Discharge Check Valve Gasket	070199008
227	1	Pipe Ass'y Stack: 1616/2018/2218/2222	070814009
		Stack: 2622	070814014
228	1	Reducer- Victaulic Stack: 2018/2218/2222	070928201
		Stack: 2622	070928301
232	1	Elbow	735031343

# Unit Assembly Components 1988- 1993

## Front View- Part One, Continued

Ref #	Qty.	Description -----	Part Number	Ref #	Qty.	Description -----	Part Number
233	1	Pipe		950	1	Main Liquid Valve-----	735039811
		Stack: 1616-----	070400406	951	1	Gasket- Liquid Valve--	735043547
		Stack: 2218/2222/2622-----	P070QAAEAA	952	1	Shut Off Valve-	
234	1	Victaulic Coupling- Suction Line/Evap.				Motor Cooling----	735039929
		Stack: 1616-----	070193905	999	1	Tube -----	735063023
		Stack: 2018/2218/2222-----	070193906				
		Stack: 2622-----	070193902				
	1	Victaulic Coupling Gasket					
		Stack: 1616-----	070194005				
		Stack: 2018/2218/2222-----	070194006				
		Stack: 2622-----	070194002				
236	1	Flange- Weld-----	735031836				
244	1	T-Ass'y -----	735061434				
245	1	Tube -----	070206060				
246	2	Weld Ring-----	735031342				
248	1	Tube -----	070400808				
253	1	Strainer-----	735030506				
254	1	Tube -----	070202060				
255	1	Flange Kit-----	735016404				
256	1	Adapter-----	735049717				
257	1	Liquid Tube -----	070097015*				
258	2	Coupling-----	041117112				
260	1	Sight Glass (until 9/90) -----	015997815				
261	1	Tube -----	070400734				
263	1	T- 16", 20", 22" Evaporator -----	041117916				
		26" Evaporator-----	041117914				
264	1	T-----	041118065				
265	1	Tube					
		Stack: 2018/2218/2222-----	070014601				
		Stack: 2622-----	070014602				
268	4	Screw -----	735033850				
272	1	Tube- Motor Cooling- until 9/90 -----	070056705				
		after 9/90 -----	042879801				
273	1	Tube- Motor Cooling					
		Stack: 1616-----	070303501				
		Stack: 2018/2218 -----	070303801				
274	1	Tube- Motor Cooling- until 9/90 -----	070250701				
		after 9/90 -----	070014614				
275	1	Tube Ass'y					
		Stack: 1616/2018/2218/2222 -----	071545904				
		Stack: 2622-----	071545907				
276	2	Check Valve -----	735040332				
277	1	T-----	041117807				
279	1	Filter Drier -----	021057417				
280	1	Elbow -----	041117206				
281	1	Gasket- Motor Cooling Flange -----	070199011				
282	1	Motor Cooling Flange					
		Motor HP- 190,210,260,300,320,360-----	735414002				
		Motor HP- 160,180,230,290 -----	735414006				
283	2	Screw- Motor Cooling Flange-----	735033846				
284	2	O'Ring -----	735073629				
285	2	Flange -----	070290301				
288	2	Reducer -----	041116629				
291	1	Valve Core-----	026541100				
292	1	Valve- No Core -----	047135505				
293	1	Valve Cap-----	032943500				
294	1	Tube-----	070400707				
296	1	Tube-----	070262701				
299	1	Main Expansion Valve- Unit Capacity:					
		150-190 Tons (150 Ton Valve) -----	735048625**				
		191-250 Tons (200 Ton Valve) -----	735048624**				
		250-313 Tons (250 Ton Valve) -----	735048626**				
		313-375 Tons (300 Ton Valve) -----	735048627**				

### \*Liquid Tube Components- Detail



### 070097015

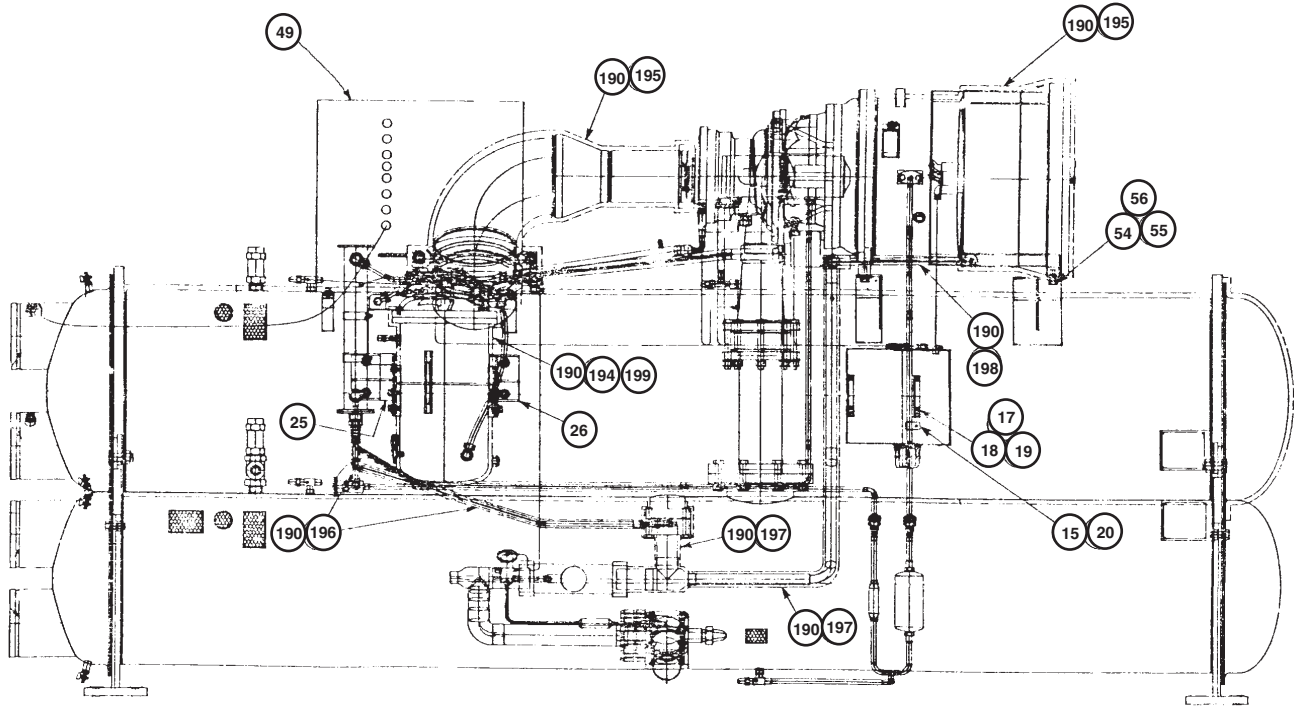
Ref #	Qty.	Description -----	Part Number
2	1	Sight Glass Saddle -	070736401
3	1	Sight Glass-----	022427700
6	1	Valve Core -----	026541100
7	1	Valve Cap -----	032943500

### \*\*Main Expansion Valve Gasket Kits

Valve -----	Part Number
735048625 -----	NA
735048624 -----	735048675
735048626 -----	735048675
735048627 -----	735048675

# Unit Assembly Components 1988- 1993

## Front View- Part Two

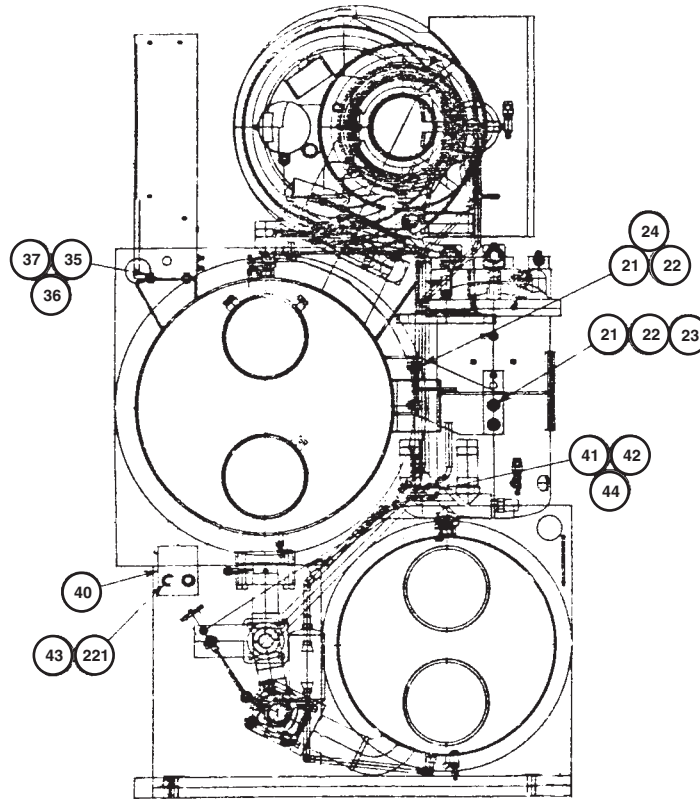


Ref #	Qty.	Description	Part Number
15	1	Screw	735032730
17	8	Screw	000164500
18	4	Nut	040499901
19	4	Lock Washer	048164808
20	1	Clamp- Until 9/90	735045636
		After 9/90	040971306
25	1	Bracket- Oil Assembly	070014407
26	1	Bracket- Oil Assembly	070014406
49	4	Vibration Mount Assembly	735008722
54	4	Washer	040500312
55	4	Screw	735033862
56	4	Lock Washer	048164815
190		Insulation Adhesive	000986000
194	6 sq.ft.	Insulation- Oil Pump	070199204
195	24 sq.ft.	Insulation- Tube	047662050
196	5.5 ft.	Insulation- Tube	001006700
197	2.5 sq.ft.	Insulation- Tube	070199204
198	2.5 ft.	Insulation- Oil Pump	047351700
199	6 ft.	Insulation- Oil Pump	047352000



# Unit Assembly Components 1988- 1993

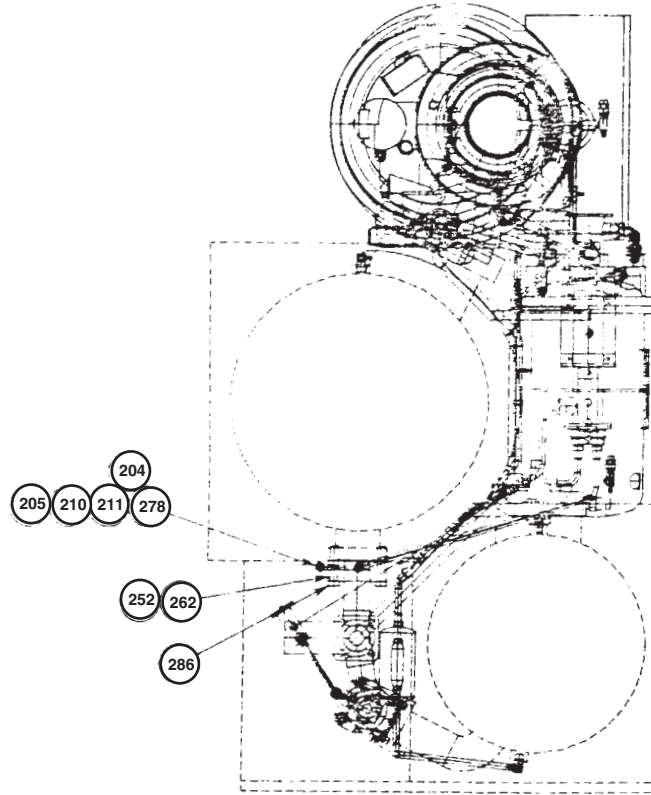
## End View- Connection End



Ref #	Qty.	Description -----	Part Number
21	8	Washer -----	040500311
22	8	Lock Washer -----	048164814
23	4	Screw -----	735033845
24	6	Screw -----	735033847
35	4	Screw -----	735033230
36	4	Washer -----	040500316
37	4	Lock Washer -----	048164812
40	2	Bracket- Cond/Evap- Until 9/90 -----	775787501
		After 9/90 -----	070192101
41	4	Bracket- Tube Sheet -----	070250301
42	2	Screw -----	735033888
43	4	Screw -----	735033875
44	2	Nut -----	735029610
221	4	Nut -----	735029608

# Unit Assembly Components 1988- 1993

## End View- Return End

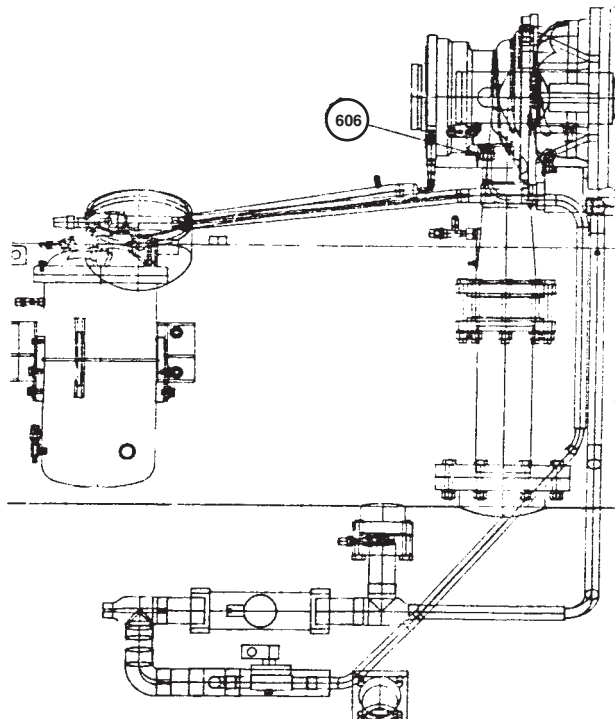
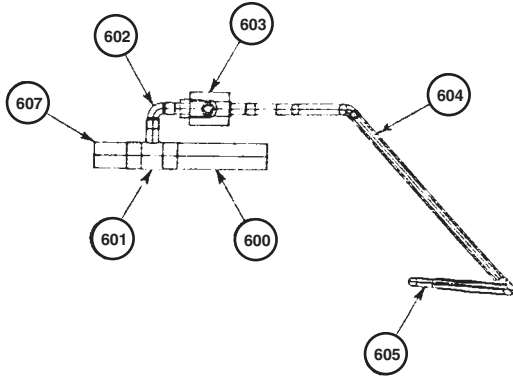


Ref #	Qty.	Description	Part Number
204	1	Bonnet	047666703
205	2	Shut Off Valve	735039929
210	2	Flare Nut	000140300
211	2	Bonnet	047666702
252	1	O'Ring	
		Stack: 1616/2018	735043674
		Stack: 2218/2222/2622	735073636
262	1	Flange- Evap. Inlet	
		Stack: 1616/2018	070350501
		Stack: 2218/2222/2622	070356701
278	4	Flare Nut	000028600
286	4	Screw	
		Stack: 1616/2018	735033953
		Stack: 2218/2222/2622	735033967



# Unit Assembly Components 1988- 1993

## Liquid Injection (optional until discontinued in 1993)

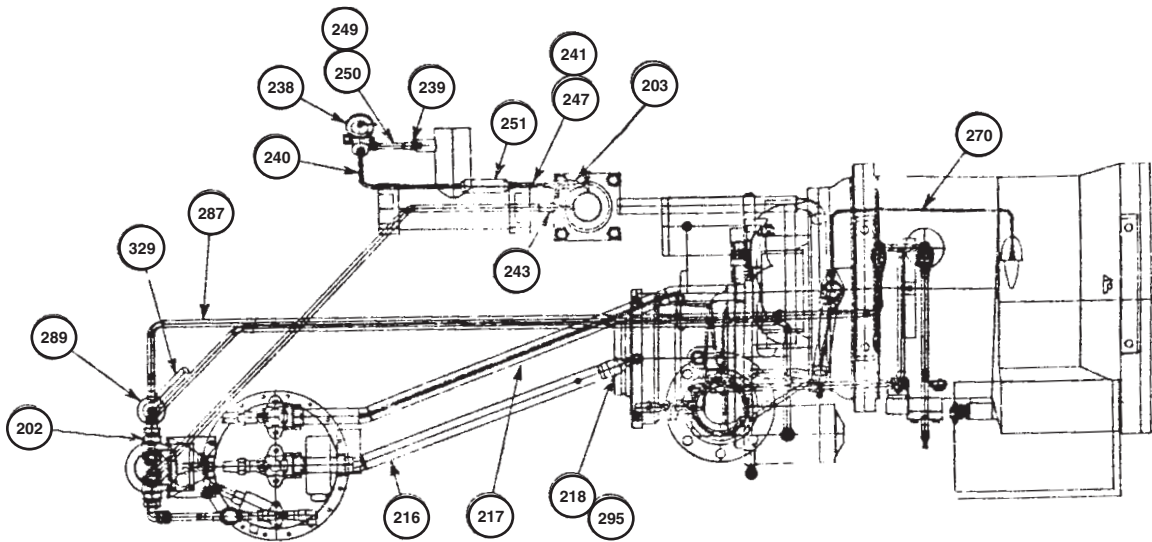


### Liquid Injection

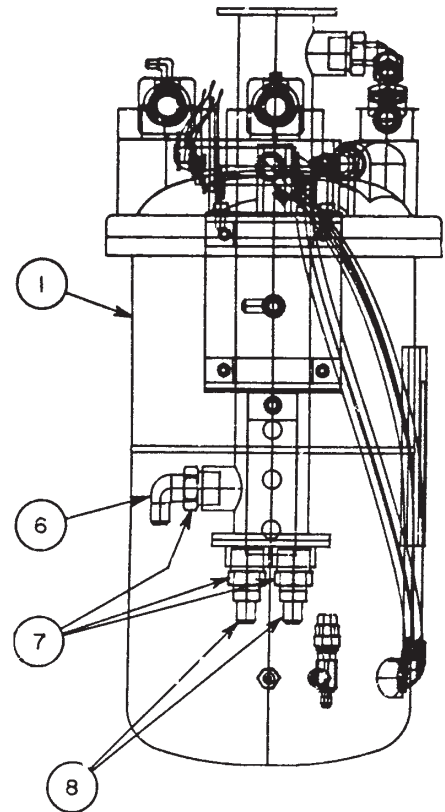
Ref #	Qty.	Description -----	Part Number
600	1	Tube -----	071259101
601	1	Tube -----	070208042
602	1	Reducer -----	041116613
603	1	Solenoid Valve -----	735048459
604	1	Ball Valve -----	036562905
		Tube -----	070209056
605	1	Tube- L.I. -----	071258701
606	1	Connector -----	735043914
607	1	Tube- L.I.	
		16" Condenser -----	071258801
		18"/22" Condenser -----	071259001
N/S	1	Cable- Solenoid Valve ---	070813342
N/S	1	Strainer -----	735030528

# Unit Assembly Components 1988- 1993

## Oil Piping



Ref #	Qty.	Description	Part Number
202	1	Reducer	041116611
203	1	Shut Off Valve	735039907
216	1	Vent Tube Ass'y	
		Stack: 1616/2018/2218/2222	070011501
		Stack: 2622	070011502
217	1	Tube Ass'y- Oil	071519101
218	1	Elbow	041117304
238	1	Pilot Expansion Valve	
		Units 0-190 Tons (3 Ton Valve)	735048618
		Units over 190 Tons (3 Ton Valve)	735048665
239	1	Coupling- Half Union	735044212
240	1	Tube- Pilot Valve	070250801
241	1	Flare Nut- Until 9/90	735044004
		After 9/90	000108300
243	1	Coupling	735044222
247	1	Tube	070400802
249	1	Flare Nut	000136100
250	1	Tube	070400803
251	1	Strainer	735030502
270	1	Motor Drain Tube	070025201
287	1	Tube	070303701
289	1	Expansion Valve- Oil Cooler	070301501
295	1	Reducer	041116524
329	1	Sensor Well	070809040

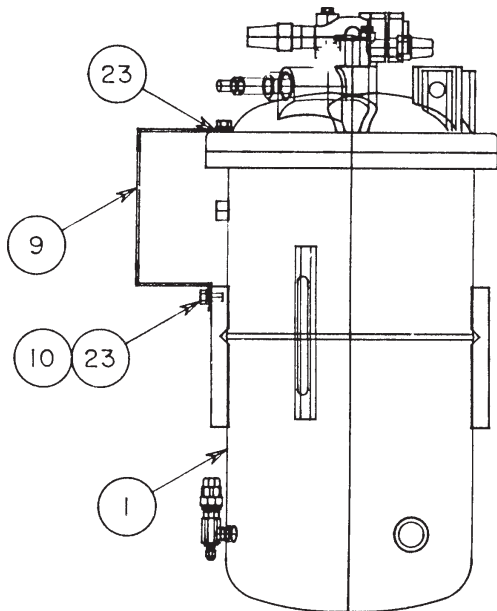
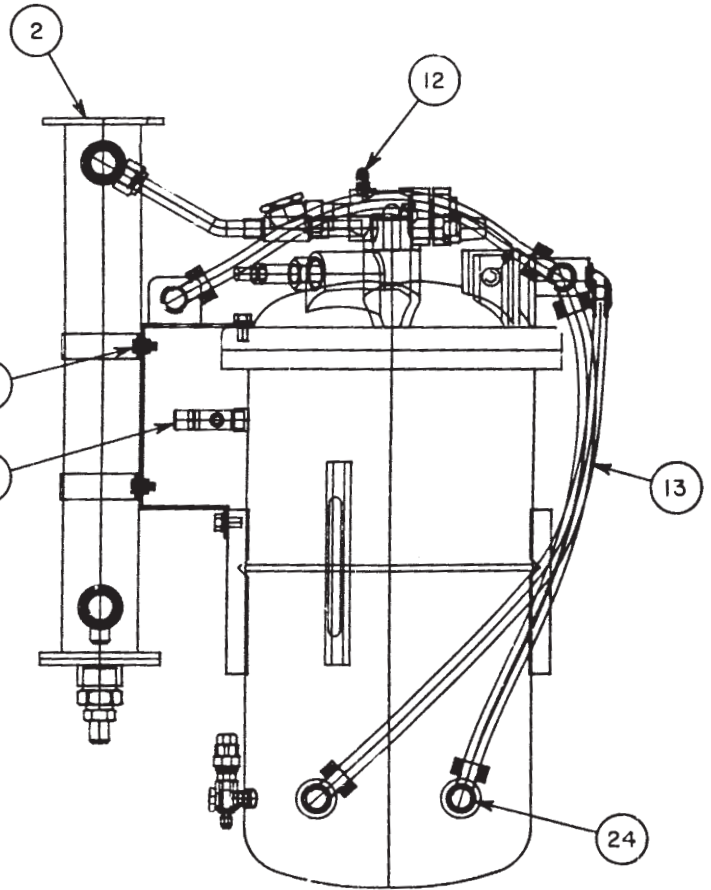
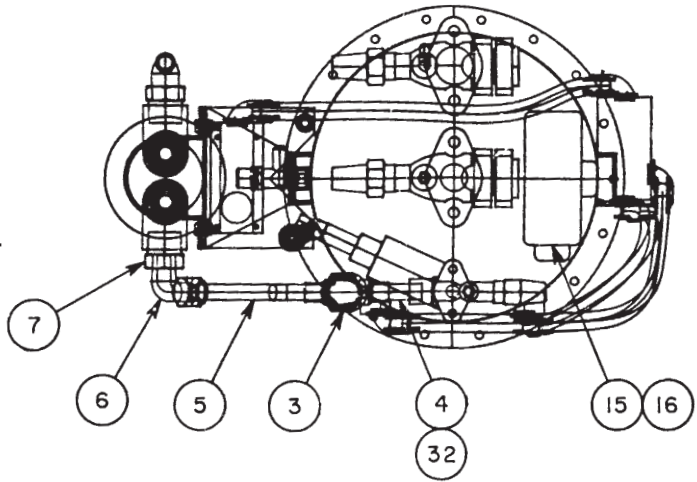


Ref #	Qty.	Description	Part Number
1	1	Oil Pump Ass'y- Complete	070878901
6	2	Elbow	040155800
7	4	Bushing	735031406
8	2	Coupling	735044217

# Unit Assembly Components 1988- 1993

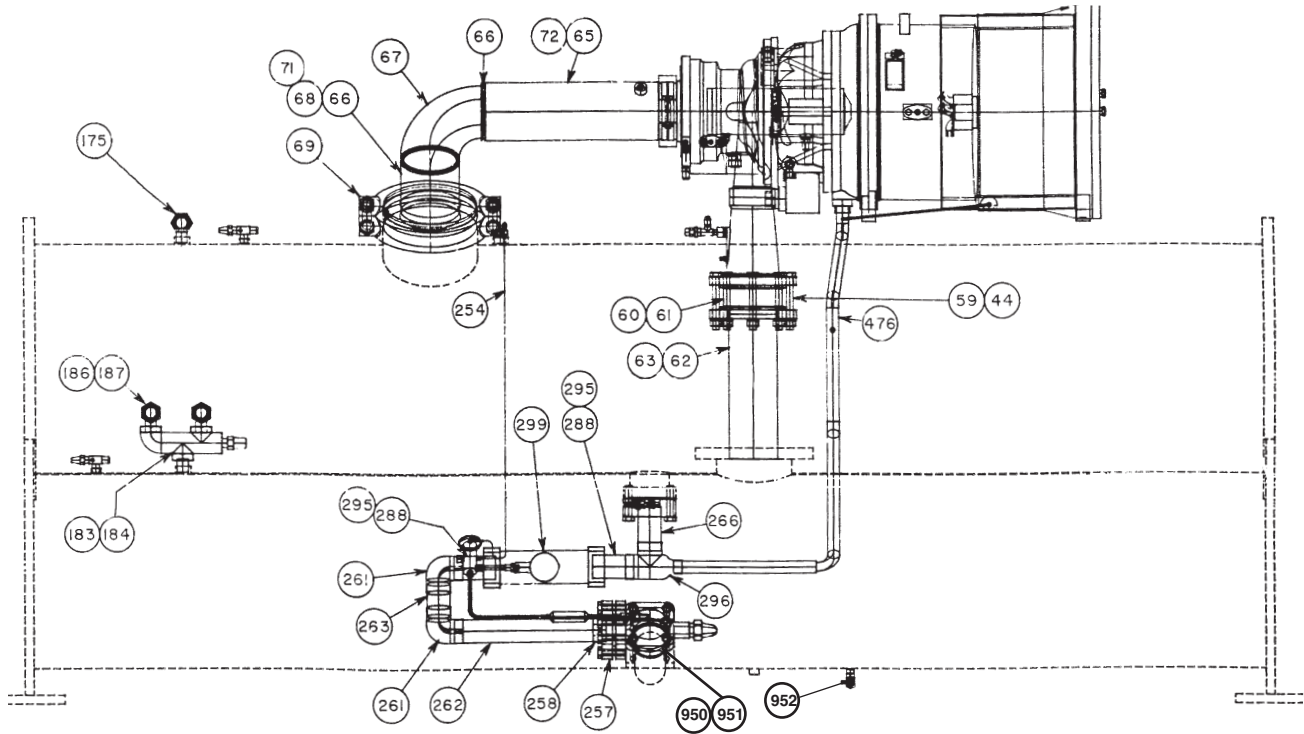
## Oil Piping

Ref #	Qty.	Description	Part Number
1	1	Oil Pump Ass'y- Complete	070878901
2	1	Oil Cooler- Complete	735977702
3	1	Check Valve	735040332
4	1	Drain Tube	042879801
5	1	Tube- Oil	070037801
6	2	Elbow	040155800
7	4	Bushing	735031406
9	1	Bracket- Oil Cooler	070450501
10	1	Screw	735033230
11	1	Relief Valve	735045818
12	1	Elbow	001276600
13	1	Heater Ass'y	071506202
(some units may have two heaters)			
15	1	Cover- Oil Pump Terminal	735234101
16	4	Screw	000011400
19	4	Screw	000164500
20	4	Nut	040499901
21	4	Lock Washer	048164808
23	3	Lock Washer	048164812
24	1	Heater Only	070302302
(some units may have two heaters)			
32	1	Bushing	041116710



# Unit Assembly Components 1993- 1996

## Front View- Part One



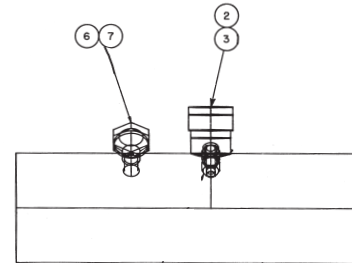
Ref #	Qty.	Description	Part Number
44	16	Nut	735029608
59	8	Discharge Check Valve Screw	
		225# Cond. Ref. Pressure (std.)	735033972
		250-300# Cond. Ref. Press. (high)	735033974
60	1	Discharge Check Valve	
		225# Cond. Ref. Pressure (std.)	735040334
		250-300# Cond. Ref. Press. (high)	735040307
61	2	Discharge Check Valve Gasket	070199008
62	1	Flange	735031836
63	1	Pipe	
		16"/20"/22" Evaporator	
		Units w/o Hot Gas Bypass	P114PAAAAA
		Units with Hot Gas Bypass	070400901
		26" Evaporator	
		Units w/o Hot Gas Bypass	P154PAAAAA
		Units with Hot Gas Bypass	070400902
65	1	Pipe	
		16"/20"/22" Evaporator	P110QABEAM
		26" Evaporator	P216QABEAM
66	2	Weld Ring	735031342
67	1	Elbow	735031343
68	1	Pipe	
		Stack- 1616	070400406
		Stack- 2018	P080QAAEAA
		Stack- 2218/2222/2622	P070QAAEAA

# Unit Assembly Components 1993- 1996

## Front View- Part One, Continued

Ref #	Qty.	Description -----	Part Number
69	1	Victaulic Coupling- Suction Line/Evap.	
		Stack: 1616-----	070193905
		Stack: 2018/2218/2222-----	070193906
		Stack: 2622-----	070193902
	1	Victaulic Coupling Gasket	
		Stack: 1616-----	070194005
		Stack: 2018/2218/2222-----	070194006
		Stack: 2622-----	070194002
71	1	Reducer- Victaulic	
		Stack- 2018/2218/2222 -----	070928201
		Stack- 2622 -----	070928301
72	1	Coupling-----	735031434
175	1	Evaporator Relief Valve- 150 PSI -----	735045808
183	1	Condenser 3-Way Shut Off Valve-----	735039946
184	1	Pipe Nipple	
		w/o Sound Insulation -----	735031797
		w/ Sound Insulation-----	071935501
186	2	Condenser Relief Valve- 180 PSI (std.) ----	735045811
187	1	Service Valve -----	735039929
254	1	T-Assembly -----	735061434
257	1	Flange Kit-----	735016404
258	1	Adapter -----	735049717
261	2	Coupling-----	041117112
262	1	Liquid Tube -----	070097015*
263	1	Tube -----	070400734
266	1	Tube	
		Stack- 1616/2018/2218/2222-----	070400707
		Stack- 2622-----	735063919
288	2	Reducer- Stack 1616 only -----	041116629
295	2	Tube	
		150 Ton Valve-----	735063940
		200, 250, 300 Ton Valves-----	775203804
296	1	T	
		16"/20"/22" Evaporator	
		Units w/o Hot Gas Bypass -----	041118065
		Units with Hot Gas Bypass-----	041117916
		26" Evaporator	
		Units w/o Hot Gas Bypass -----	041118065
		Units with Hot Gas Bypass-----	041117914
299	1	Main Expansion Valve- Unit Capacity:	
		150-190 Tons (150 Ton Valve) -----	735048625**
		191-250 Tons (200 Ton Valve) -----	735048624**
		250-313 Tons (250 Ton Valve) -----	735048626**
		313-375 Tons (300 Ton Valve) -----	735048627**
476	1	Tube- Motor Drain	
		Stack- 1616/2018/2218/2222-----	070851721
		Stack- 2622 -----	070851722
950	1	Main Liquid Valve -----	735039811
951	1	Gasket- Liquid Valve -----	735043547
952	1	Shut Off Valve-	
		Motor Cooling -----	735039929

### \*Liquid Tube Components- Detail



### 070097015

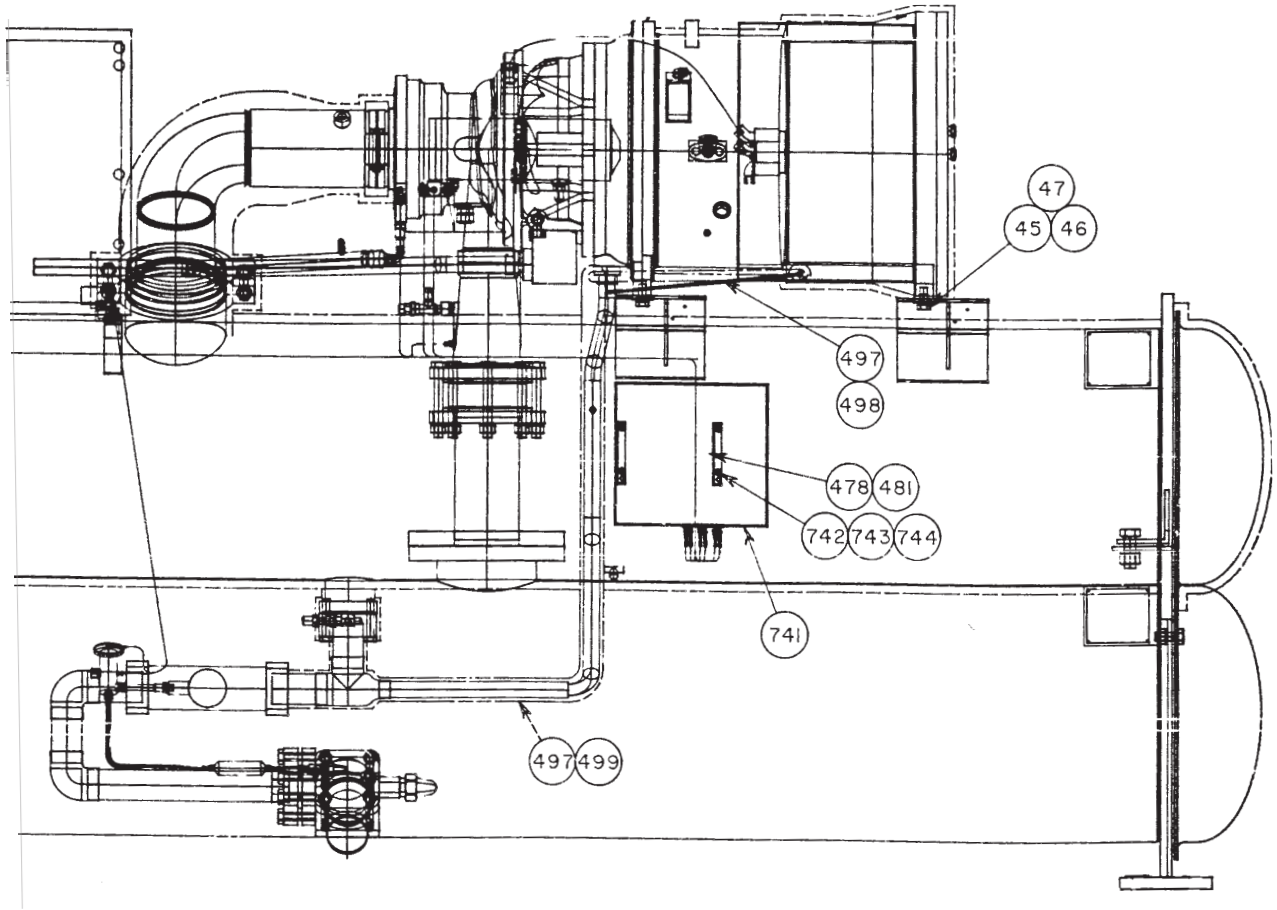
Ref #	Qty.	Description -----	Part Number
2	1	Sight Glass Saddle -	070736401
3	1	Sight Glass-----	022427700
6	1	Valve Core -----	026541100
7	1	Valve Cap -----	032943500

### \*\*Main Expansion Valve Gasket Kits

Valve -----	Part Number
735048625 -----	NA
735048624 -----	735048675
735048626 -----	735048675
735048627 -----	735048675

# Unit Assembly Components 1993- 1996

## Front View- Part Two

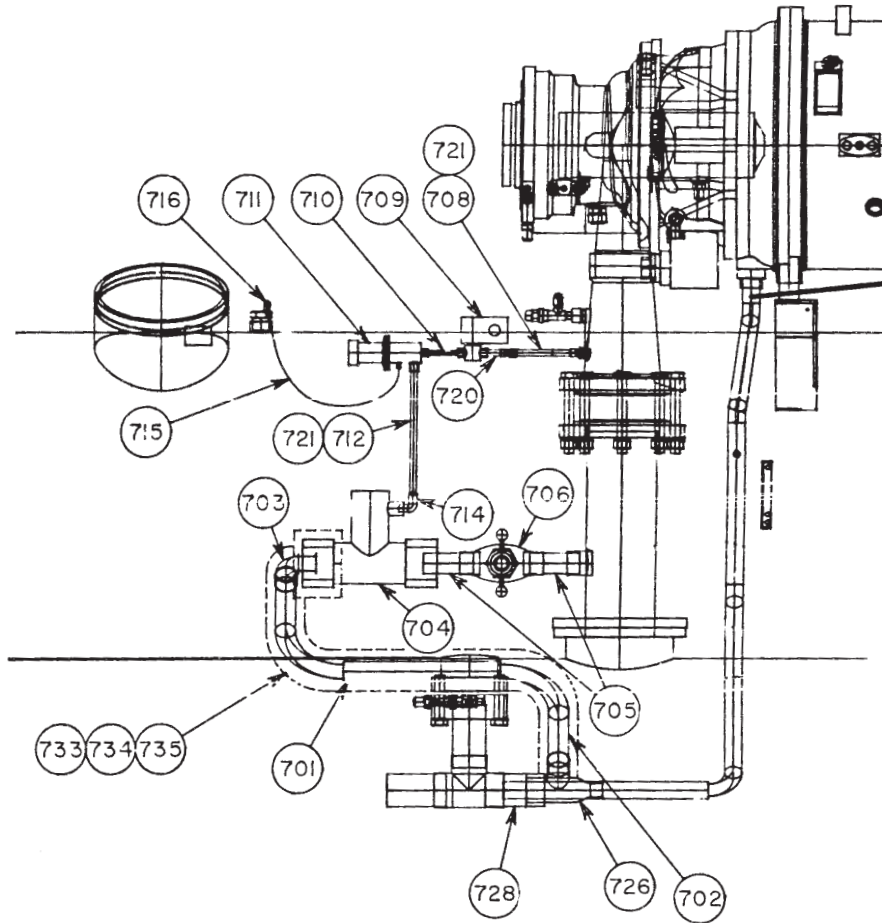


Ref #	Qty.	Description	Part Number
45	4	Washer	040500312
46	4	Screw	735033862
47	4	Lock Washer	048164815
478	1	Screw	735032730
481	1	Clamp	040971306
497		Insulation Adhesive	000986000
498	2.5 ft.	Insulation- Tube	047351700
499	6 ft.	Insulation- Tube	047352000
741	1	Lube Box (see Control Box Section)	
742	4	Screw	000164500
743	4	Nut	040499901
744	4	Lock Washer	048164808



# Unit Assembly Components 1993- 1996

## Hot Gas Bypass

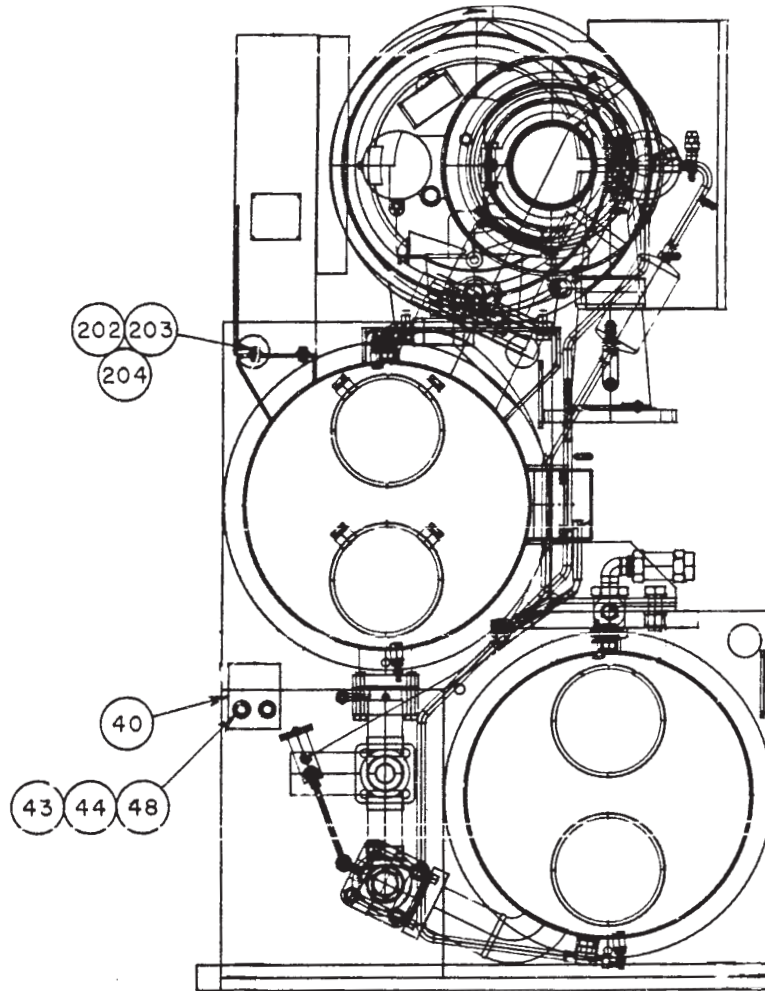


### Hot Gas Bypass

Ref #	Qty.	Description	Part Number
701	1	Tube- Hot Gas	
		16"/20"/22" Evaporator-----	072243801
		26" Evaporator -----	070356801
702	1	Tube- Hot Gas 16"/20"/22" Evap. Only -----	072243901
703	1	Elbow -----	041117408
704	1	Hot Gas Expansion Valve-----	735048609
		Expansion Valve Gasket Kit-----	735048676
705	2	Tube -----	070400703
706	1	Shut Off Valve-----	735039963
708	1	Tube -----	070400805
709	1	Solenoid Valve -----	735048430
710	1	Tube- Hot Gas -----	070251001
711	1	Hot Gas Bypass Regulator Valve -----	735077202
712	1	Tube	
		16"/20"/22" Evaporator-----	070400806
		26" Evaporator -----	070400807
714	1	Elbow -----	047350609
715	1	T Ass'y-----	735061431
716	1	T-----	041117803
720	1	Tube -----	735051805
721	2	Flare Nut -----	000136100
726	1	Connector-----	041118067
728	1	Tube -----	775203804
733		Insulation Adhesive-----	000986000
734	2 sq. ft.	Insulation-----	047662050
735	6 ft.	Insulation-----	047352100

# Unit Assembly Components 1993- 1996

## End View- Connection End

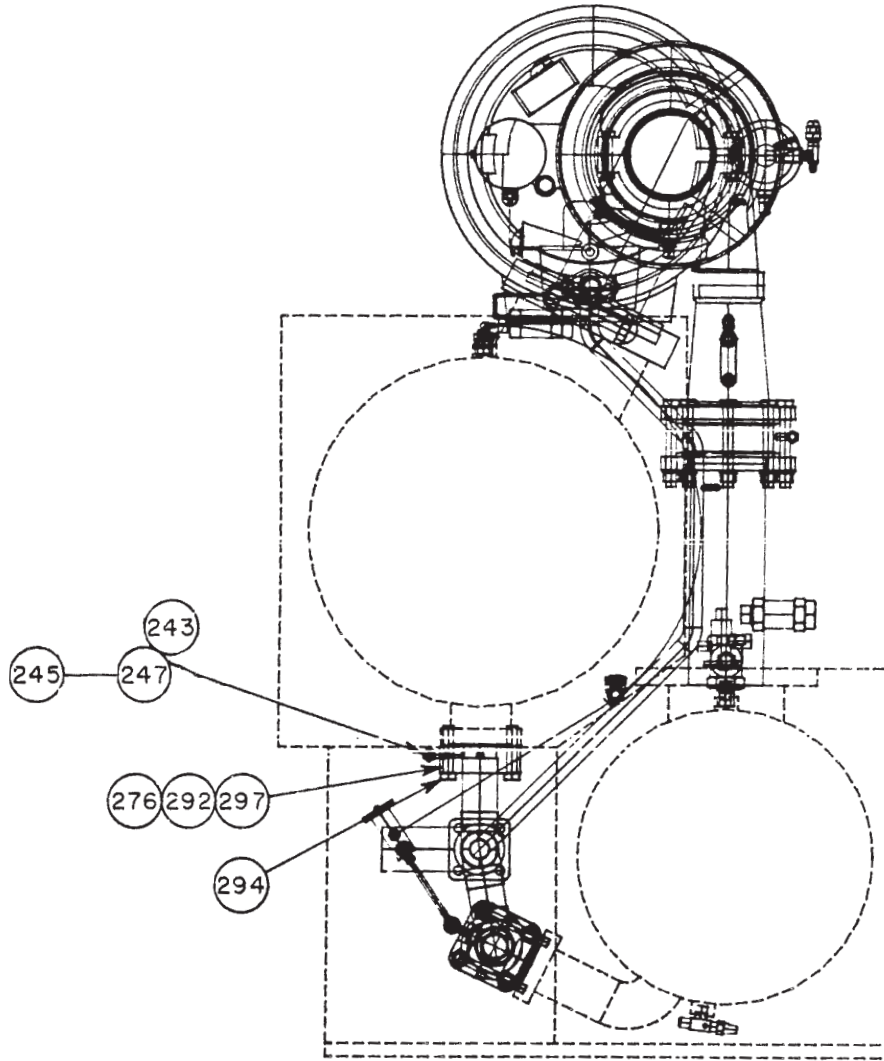


Ref #	Qty.	Description	Part Number
40	2	Bracket- Evap/Cond	070182101
43	4	Screw	735033875
44	16	Nut	735029608
48	4	Washer	048164816
202	4	Screw	
		3/93 - 3/95	735033230
		3/95 - 5/96	735033845
		5/96 - 9/96	735033230
203	4	Washer	040500316
204	4	Lock Washer	048164812



# Unit Assembly Components 1993- 1996

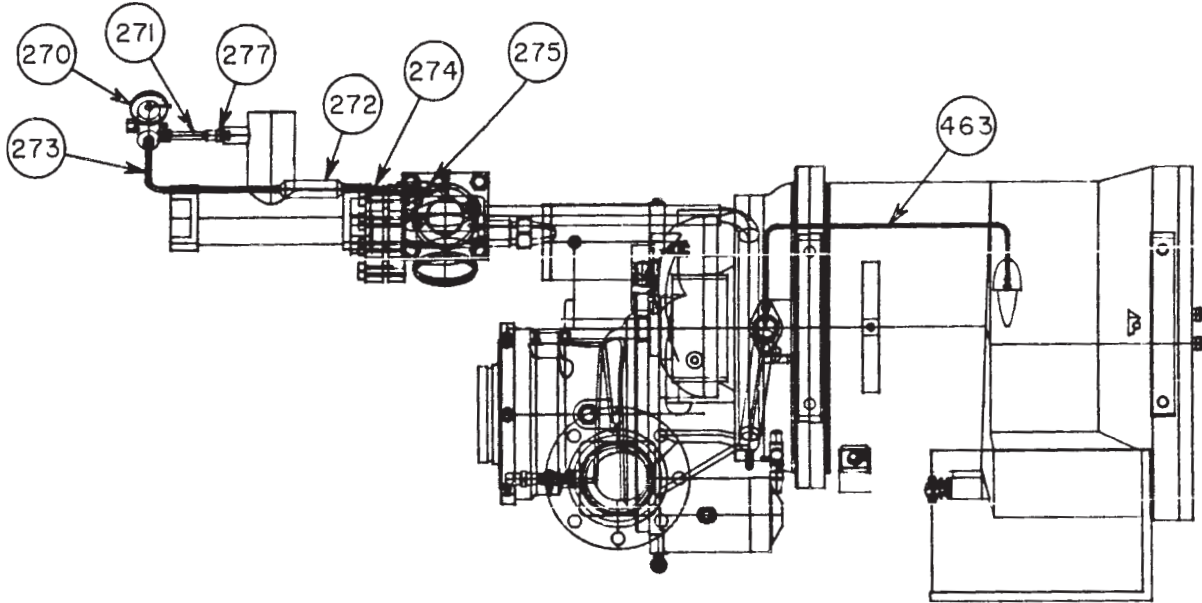
## End View- Return End



Ref #	Qty.	Description	Part Number
243	1	Flare Nut- 3/93 - 3/95	000140300
		Flare Cap 3/95 on	073243901
245	2	Bonnet 3/93 - 3/95	047666702
247	1	Shut Off Valve	735039929
276	1	Pipe Plug	025334000
292	1	O'Ring	
		Stack- 1616/2018	735043674
		Stack- 2218/2222/2622	735073636
294	4	Screw	
		Stack- 1616/2018	735033953
		Stack- 2218/2222/2622	735033967
297	1	Flange- Evaporator Inlet	
		Stack- 1616/2018	070350501
		Stack- 2218/2222/2622	070356701

# Unit Assembly Components 1993- 1996

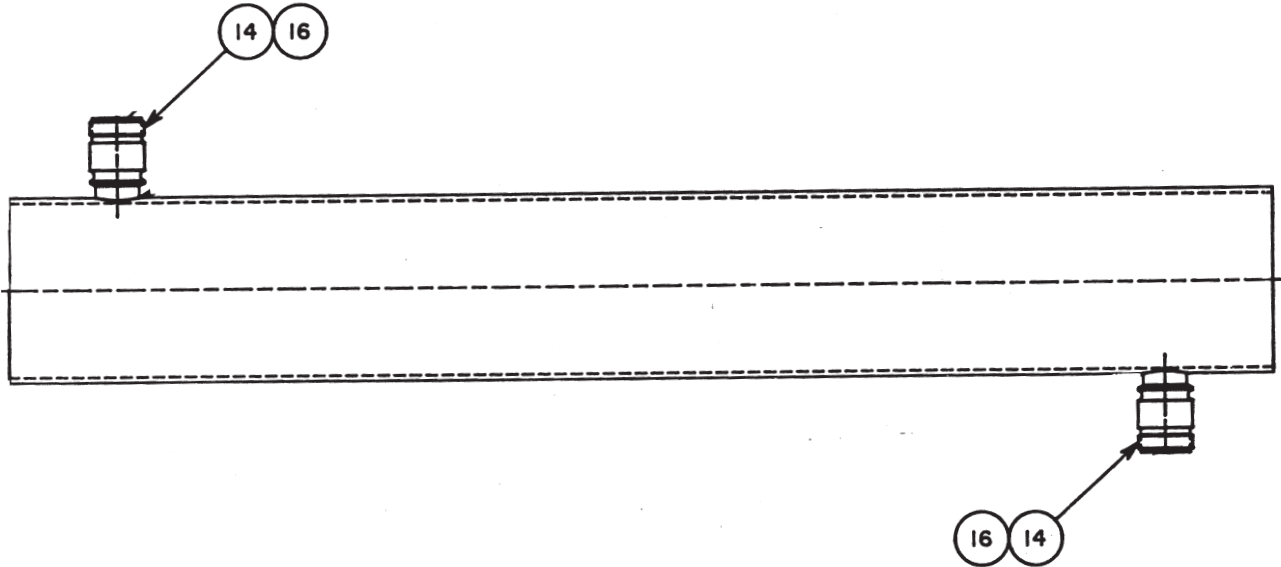
## Top View



Ref #	Qty.	Description	Part Number
270	1	Pilot Expansion Valve Units 0-190 Tons (3 Ton Valve)----- Units over 190 Tons (3 Ton Valve)-----	735048618 735048665
271	1	Tube -----	070400803
272	1	Strainer -----	735030502
273	1	Tube- Pilot Valve -----	070250801
274	1	Tube- Motor Cooling-----	070400802
275	1	Shut Off Valve-----	735039907
277	1	Coupling-----	735044212
463	1	T Ass'y-----	735061432

# Unit Assembly Components 1993- 1996

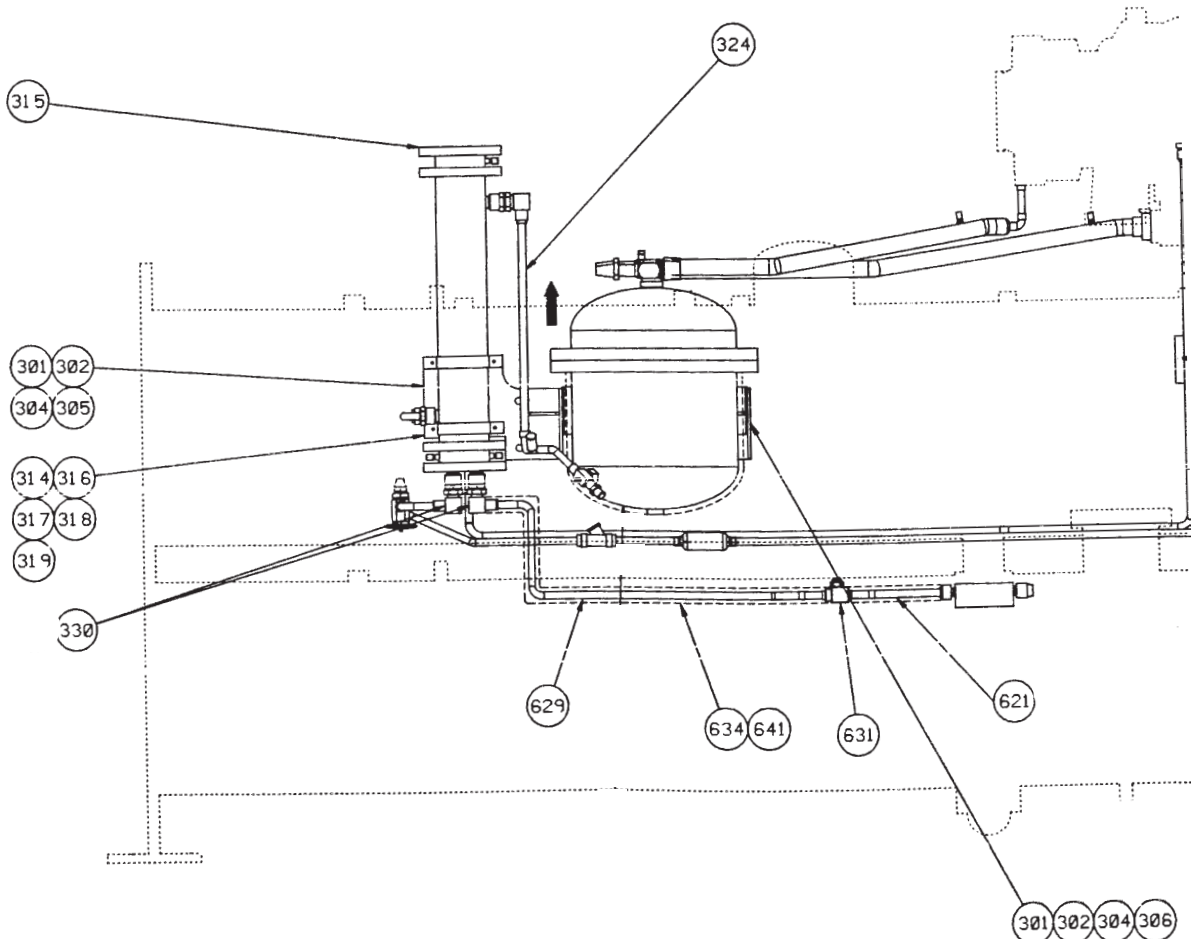
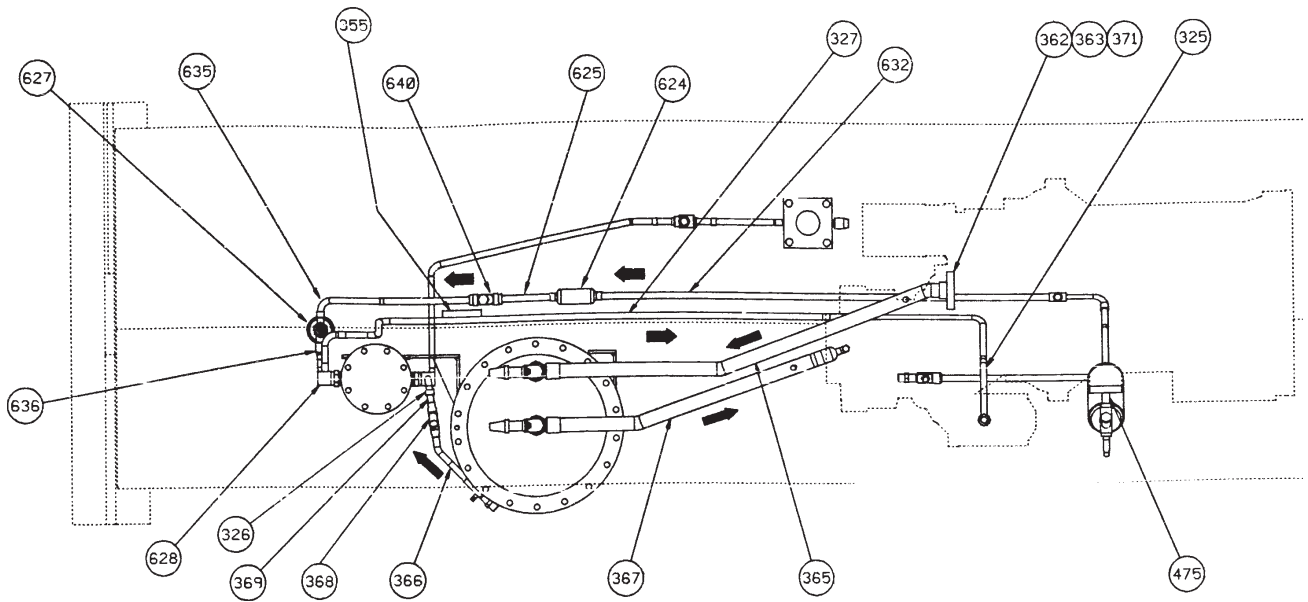
## Oil Cooler Components



Ref #	Qty.	Description-----	Part Number
14	2	Adapter-----	070296601
16	2	Sealing Ring-----	736017604
Complete Ass'y -----			072102202
Connection Head -----			070083101
Return Head -----			070083201
Head Gasket (2)-----			070270601

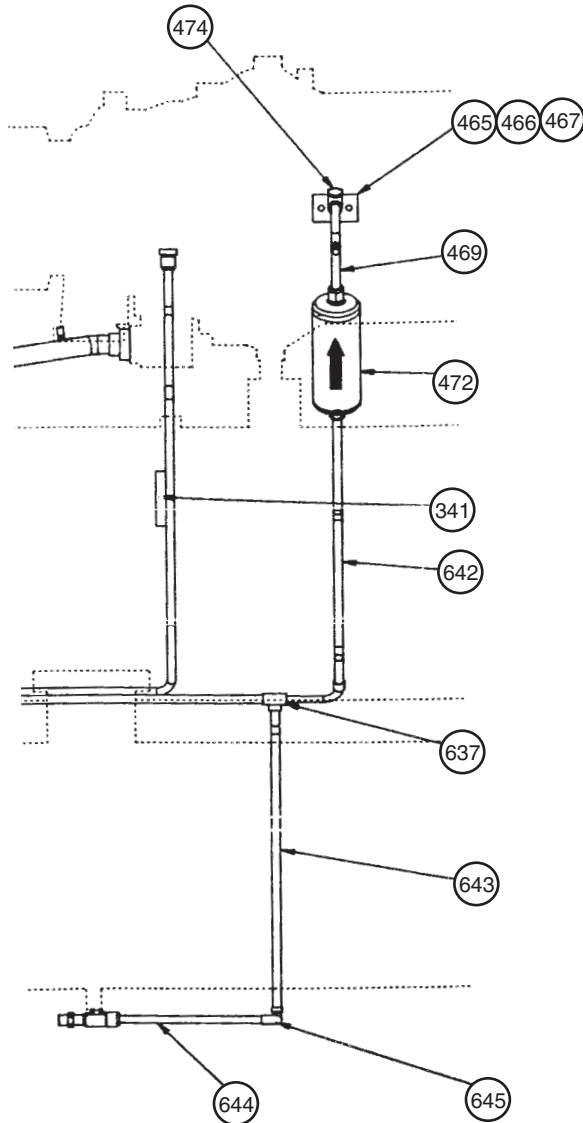
# Unit Assembly Components 1993- 1996

## Refrigerant- Cooled (Standard) Oil Cooler Piping



# Unit Assembly Components 1993-1996

## Refrigerant- Cooled (Standard) Oil Cooler Piping, Continued



Ref #	Qty.	Description	Part Number
301	8	Washer	040500311
302	8	Lock Washer	048164814
304	4	Screw	735033845
305	1	Oil Pump Bracket	070014442
306	1	Oil Cooler Bracket	070014423
314	4	Washer	735043230
315	1	Oil Cooler Ass'y	072102202**
316	2	Strap- Oil Cooler	735057283
317	4	Screw	000164500
318	4	Nut	040499901
319	4	Lock Washer	048164808
324	1	Tube	070402302
325	1	Tube Ass'y- Oil	
		16"/20"/22" Evap.	070140172
		26" Evap.	070140173

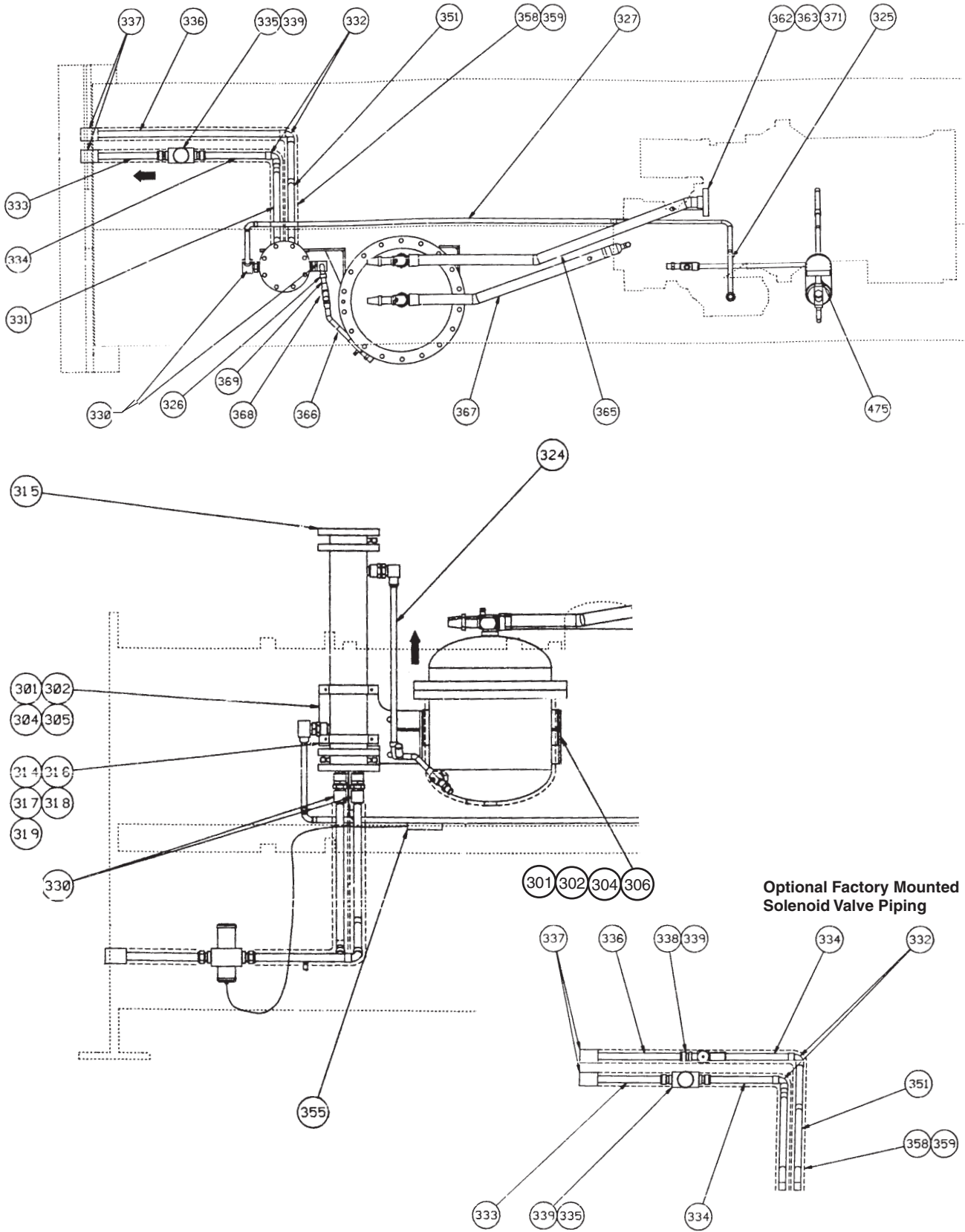
\*\*The Oil Cooler is no longer used and has been replaced by a plate-to-plate heat exchanger. If the oil cooler requires replacement, you may order a kit to facilitate this retrofit:

**Kit pn: 072900078      Heat Exchanger pn: 074666401**

326	2*	Elbow	041117206
		* Qty. became 4 after 5/96	
327	1	Tube	070206705
330	4	Adapter	735044361
341	1	Tube	735063023
355	1	Well	070809040
362	2	Screw	735033846
363	1	Flange/O'Ring	070290301
365	1	Oil Return Ass'y	074309011
366	1	Tube- Oil Cooler	070665901
367	1	Tube Ass'y- O.P. Vent	072168378
368	1	Check Valve	735040332
369	1	Tube- Drain	042879801
371	1	O'Ring	735073629
465	1	Gasket- M.C. Flange	070199011
466	1	Motor Cooling Flange	
		Motor HP- 190,210,260,300,320,360	735414002
		Motor HP- 160,180,230,290	735414006
467	2	Screw- M.C. Flange	735033846
469	1	Tube- Motor Cooling	070014614
472	1	Filter Drier	021057417
474	1	Check Valve	735040332
475	1	Tube- Drain	042879801
621	1	Tube Ass'y	
		Stack- 1616/2018	072168316
		Stack- 2218/2222/2622	072168326
624	1	Strainer	735030506
625	1	Tube	070206060
627	1	Expansion Valve- O.C.	070301501
628	1	Tube- Ref. Supply	
		Stack- 1616	070206040
		Stack- 2018	072256901
		Stack- 2218/2222/2622	072930201
629	1	Tube- Oil Return	
		Stack- 1616	072932201
		Stack- 2018/2218/2222	072256601
		Stack- 2622	072933501
631	1	Ball Valve	036562903
632	1	Tube	070206466
634	5.5 ft.	Insulation	001006700
635	1	Tube- Expansion Valve	
		Stack- 1616	072932601
		Stack- 2018	072256801
		Stack- 2218/2222	072930101
		Stack- 2622	072934201
636	1	Reducer	041116611
637	1	T	041117807
640	1	Check Valve	735040332
641		Insulation Adhesive	000986000
642	1	Tube Ass'y- Motor	
		Stack- 16"/20"/22" Evaporator	071545904
		Stack- 26" Evaporator	071545907
643	1	Tube- Motor Cooling	
		Stack- 1616	070303501
		Stack- 2018	070303801
		Stack- 2218	070303501
		Stack- 2222/2622	071545908
644	1	Tube- M.C.- 16"/18" Condenser	071545905
645	1	Elbow- 16"/18" Condenser	041117206

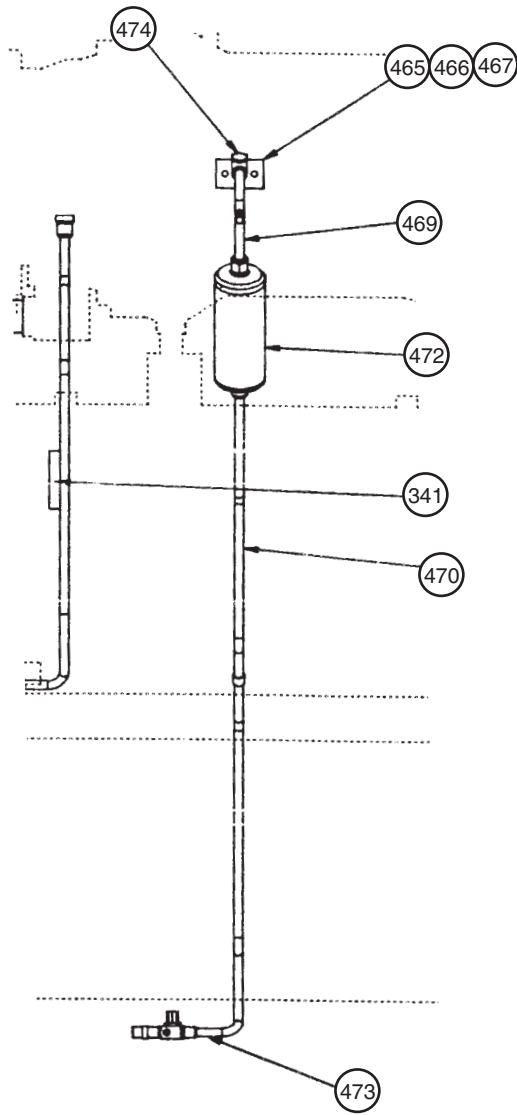
# Unit Assembly Components 1993-1996

## Water- Cooled Oil Cooler Piping



# Unit Assembly Components 1993- 1996

## Water- Cooled Oil Cooler Piping, Continued



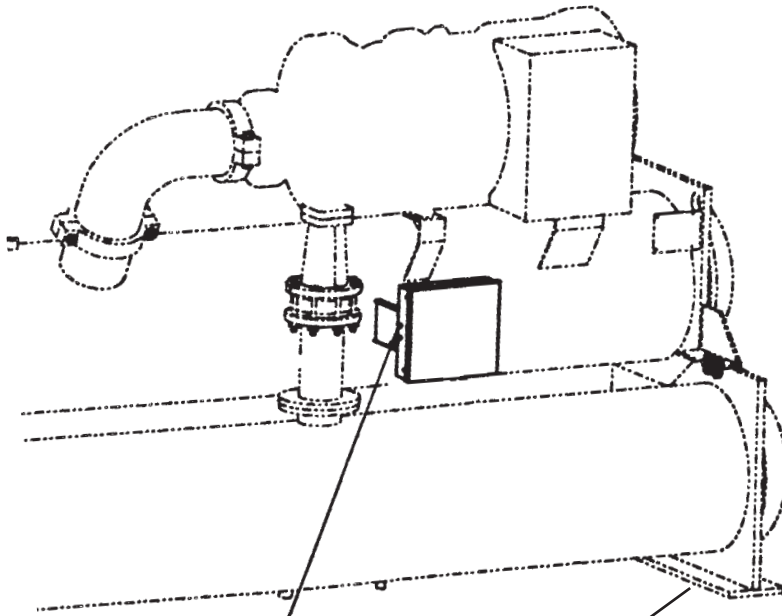
Ref #	Qty.	Description	Part Number
301	8	Washer	040500311
302	8	Lock Washer	048164814
304	4	Screw	735033845
305	1	Oil Pump Bracket	070014442
306	1	Oil Cooler Bracket	070014423
314	4	Washer	735043230
315	1	Oil Cooler Ass'y	072102202
316	2	Strap- Oil Cooler	735057283
317	4	Screw	000164500
318	4	Nut	040499901
319	4	Lock Washer	048164808
324	1	Tube	070402302
325	1	Tube Ass'y- Oil 16"/20"/22" Evap.	070140172
		26" Evap.	070140173

326	1	Elbow	041117206
327	1	Tube	070206705
330	4	Adapter	735044361
331	1	Tube- Oil Cooler Supply Stack- 1616	072932401
		Stack- 2018/2218/2222	072265701
		Stack- 2622	072933801
332	2	Elbow	041117106
333	1	Tube- 12' Vessels	070208101
		16' Vessels	070208346
334	2	Tube- Water	070851001
335	1	Water Regulating Valve	735075405
336	1	Tube Units w/ factory mounted solenoid 12' Vessels	070208126
		16' Vessels	070208370
		Units w/o factory mounted solenoid 12' Vessels	070208274
		16' Vessels	070208520
337	2	Adapter	071909501
338	1	Solenoid Valve (Optional)	735048462
339	*	Connector	735043914
		*Qty=4 on units w/solenoid/ Qty=2 on units w/o solenoid	
341	1	Tube	735063023
351	1	Tube- Oil Cooler Return Stack- 1616	072932501
		Stack- 2018/2218/2222	072265801
		Stack- 2622	072933701
355	1	Well	070809040
358		Insulation Adhesive	000986000
359	13 ft.	Insulation	026218800
362	2	Screw	735033846
363	1	Flange/O'Ring	070290301
365	1	Oil Return Ass'y	074309011
366	1	Tube- Oil Cooler	070665901
367	1	Tube Ass'y- O.P. Vent	072168378
368	1	Check Valve	735040332
369	1	Tube- Drain	042879801
371	1	O'Ring	735073929
465	1	Gasket- M.C. Flange	070199011
466	1	Motor Cooling Flange Motor HP- 190,210,260,300,320,360	735414002
		Motor HP- 160,180,230,290	735414006
467	2	Screw- M.C. Flange	735033846
469	1	Tube- Motor Cooling	070014614
470	1	Tube Ass'y- Motor Cooling Stack- 1616/2218/2222	072168328
		Stack- 2018	072168318
		Stack- 2622	072168368
472	1	Filter Drier	021057417
473	1	Tube Ass'y- Motor Stack- 1616	072168342
		Stack- 2018	072168312
		Stack- 2218	072168352
		Stack- 2222	072168322
		Stack- 2622	072168362
474	1	Check Valve	735040332
475	1	Tube- Drain	042879801
NS	1	Solenoid Valve Cable	070840001



# Unit Assembly Components 1996- Present

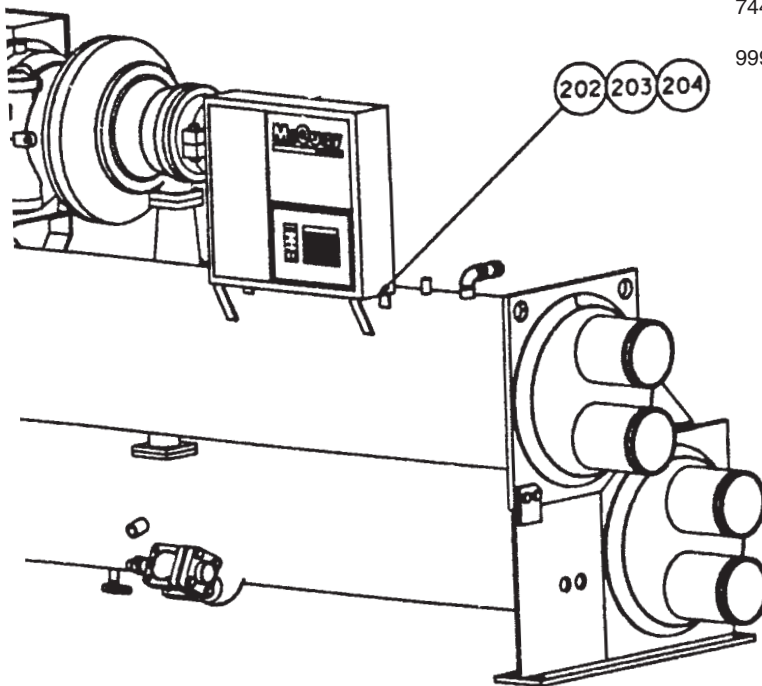
## Lube Box and MicroTech Panel Mounting, Unit Vibration Mount



742 743 744

999

Ref #	Qty.	Description -----	Part Number
202	4	Screw -----	735033230
203	4	Washer -----	040500316
204	4	Lock Washer -----	048164812
742	4	Screw -----	000164500
743	4	Nut -----	040499901
744	4	Lock Washer -----	048164808
999	4	Vibration Mount -----	735008722

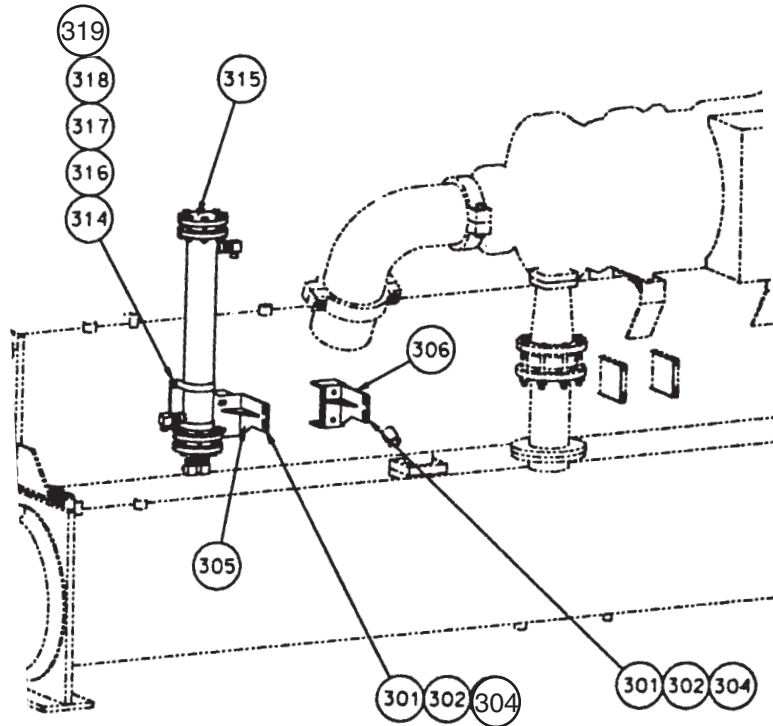


202 203 204



# Unit Assembly Components 1996- Present

## Oil Cooler and Oil Cooler Mounting- Shell and Tube Oil Cooler



### Self Manufactured Oil Cooler (until 9/96)

Ref #	Qty.	Description	Part Number
301	8	Washer	040500311
302	8	Lock Washer	048164814
304	4	Screw	735033845
305	1	Oil Pump Bracket	070014442
306	1	Oil Cooler Bracket	070014423
314	4	Washer	735043230
315	1	Oil Cooler Ass'y	072102202**
316	2	Strap- Oil Cooler	735057283
317	4	Screw	000164500
318	4	Nut	040499901
319	4	Lock Washer	048164808

\*\*The Oil Cooler is no longer used and has been replaced by a plate-to-plate heat exchanger. If the oil cooler requires replacement, you may order a kit to facilitate this retrofit:

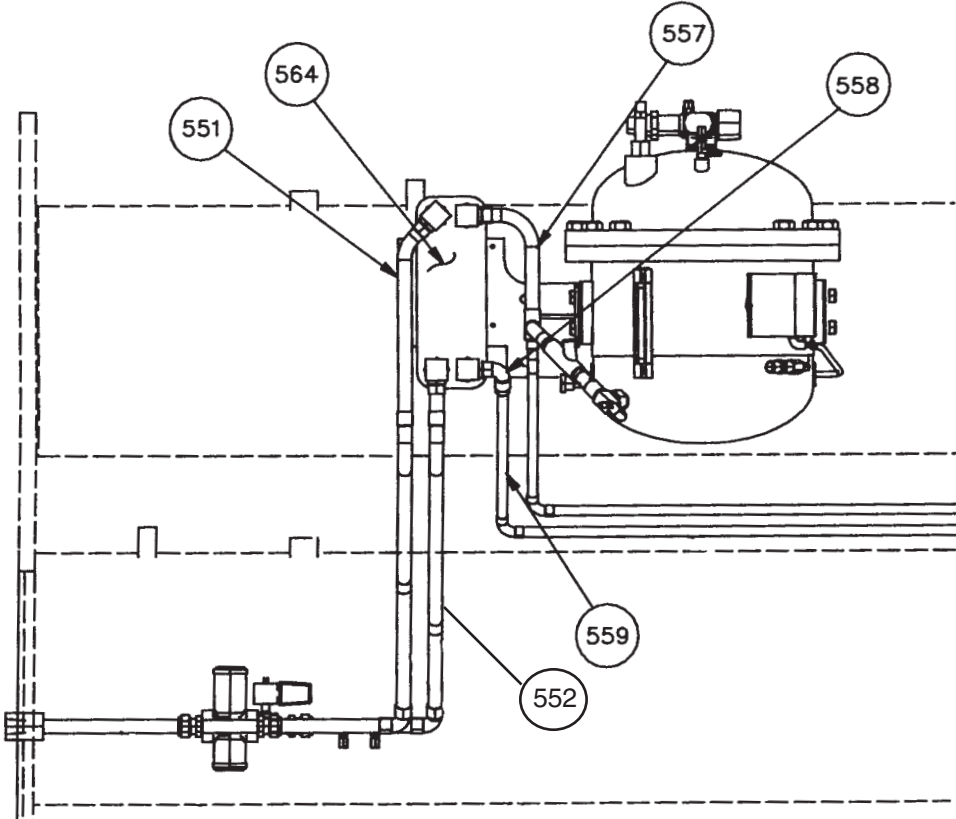
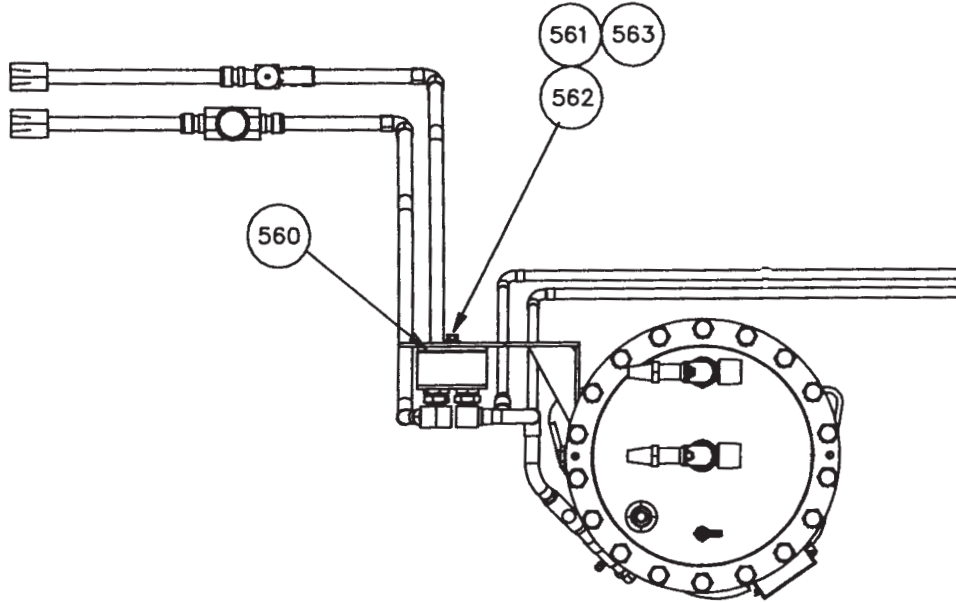
**Kit pn: 072900078**

**Heat Exchanger pn: 074666401**

# Unit Assembly Components 1996- Present

## Oil Cooler and Oil Cooler Mounting- Plate-to-Plate Heat Exchanger

### Diagrams



# Unit Assembly Components 1996- Present

## Oil Cooler and Oil Cooler Mounting- Plate-to-Plate Heat Exchanger Components

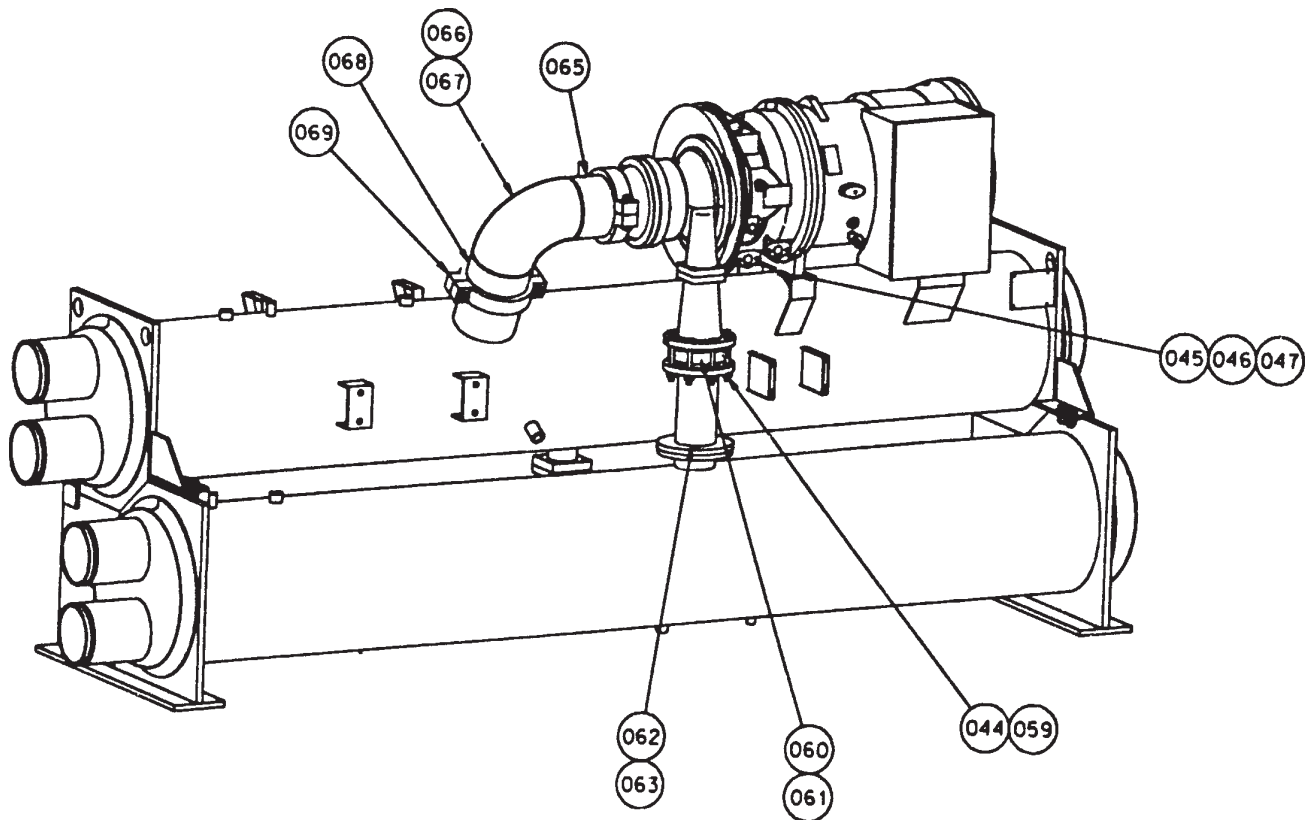
### Plate-To-Plate Heat Exchanger (9/96 and later)

Ref #	Qty.	Description-----	Part Number
551	1	Tube- Heat Exch. -----	074666101
552	1	Tube-----	070208060
557	1	Tube- Heat Exch. -----	074775201
558	1	Elbow -----	041117306
559	1	Tube-----	070402302
560	1	Vibration Pad -----	074666301
561	2	Washer -----	040500308
562	2	Lock Washer -----	048164812
563	2	Nut-----	040499906
564	1	Heat Exchanger-----	074666401

# Unit Assembly Components 1996- Present

## Suction and Discharge Parts

### Diagram



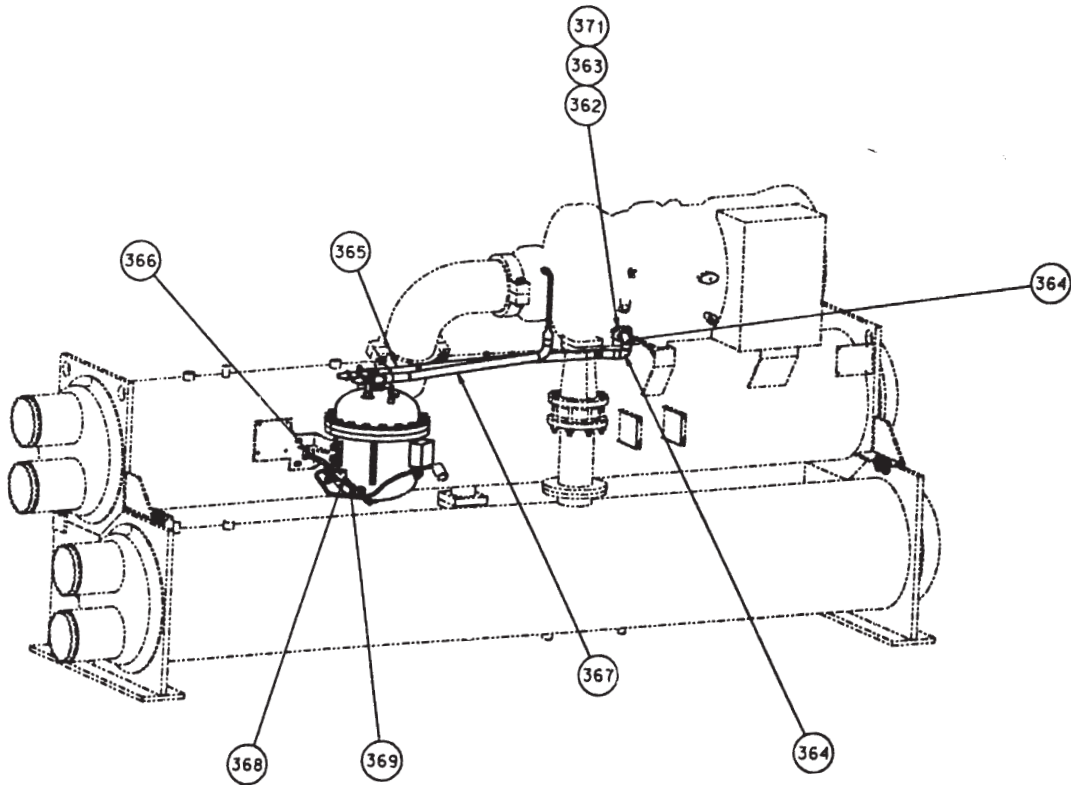
# Unit Assembly Components 1996- Present

## Suction and Discharge Parts Components

Ref #	Qty.	Description -----	Part Number
44	4	Nut -----	735029608
45	4	Washer-----	040500312
46	4	Screw-----	735033862
47	4	Lock Washer-----	048164815
59	8	Discharge Check Valve Screw	
		225# Cond. Ref. Pressure (std.)-----	735033972
		250-300# Cond. Ref. Press. (high)-----	735033974
60	1	Discharge Check Valve	
		225# Cond. Ref. Pressure (std.)-----	735040334
		250-300# Cond. Ref. Press. (high)-----	735040307
61	2	Discharge Check Valve Gasket -----	070199008
62	1	Flange-----	735031836
63	1	Pipe	
		16"/20"/22" Evaporator	
		Units w/o Hot Gas Bypass -----	P114PAAAAA
		Units with Hot Gas Bypass -----	070400901
		24"/26" Evaporator	
		Units w/o Hot Gas Bypass -----	P154PAAAAA
		Units with Hot Gas Bypass -----	070400902
65	1	Pipe	
		Stack- 1616 -----	P072QAEAAAM
		Stack- 2018/2218/2222 -----	P062RABEAM
		Stack- 2422/2622 -----	P162RABEAM
66	2	Weld Ring	
		Stack- 1616 -----	735031342
		Stack- 2018/2218/2222/2422/2622 -----	735031327
67	1	Elbow	
		Stack- 1616 -----	735031343
		Stack- 2018/2218/2222/2422/2622 -----	735031346
68	1	Pipe	
		Stack- 1616 -----	P096QABEAA
		Stack- 2018 -----	P058RABEAA
		Stack- 2218/2222 -----	P046RABEAA
		Stack- 2422/2622 -----	P052RAAEAA
69	1	Victaulic Coupling	
		Stack- 1616 -----	070193905
		Stack- 2018/2218/2222 -----	070193906
		Stack- 2422/2622 -----	070193902
		Victaulic Coupling Gasket	
		Stack- 1616 -----	070194005
		Stack- 2018/2218/2222 -----	070194006
		Stack- 2422/2622 -----	070194002

# Unit Assembly Components 1996- Present

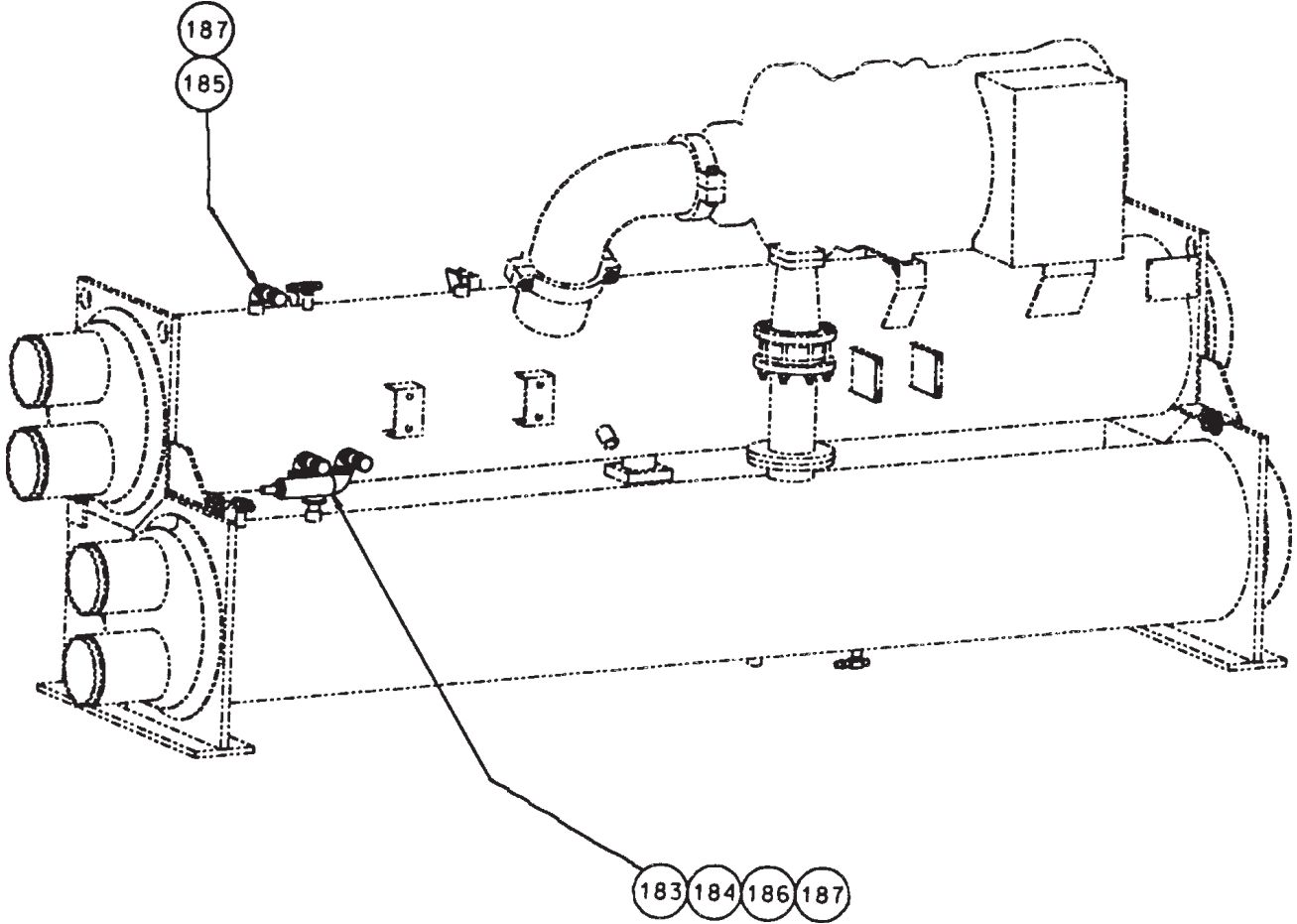
## Oil Lines



Ref #	Qty.	Description	Part Number
362	2	Screw	735033846
363	1	Flange O'Ring- until 6/97	070290301
		Flange/O'Ring- 7/97 and later	074614801
364	2	Elbow	041117109
365	1	Tube- Vent Ass'y	
		16"/20"/22" Evaporator- Rev. C Compr.	072168310
		16"/20"/22" Evaporator- Rev. D Compr.	072168378
		24"/26" Evaporator	072168360
366	1	Tube- Oil Cooler- until 7/98	070665901
		Tube- Oil Cooler- 8/98 and later	074788801
367	1	Tube- Vent Ass'y	
		Stack- 1616	072168348
		Stack- 2018/2218/2222/2422/2622	072168378
368	1	Check Valve- until 11/96	735040332
		Check Valve- 12/96 and later	735040326
369	1	Tube- Drain- until 11/96	042879801
		Tube- Drain- 12/96 and later	070208020
371	1	O'Ring	735073629

# Unit Assembly Components 1996-1998

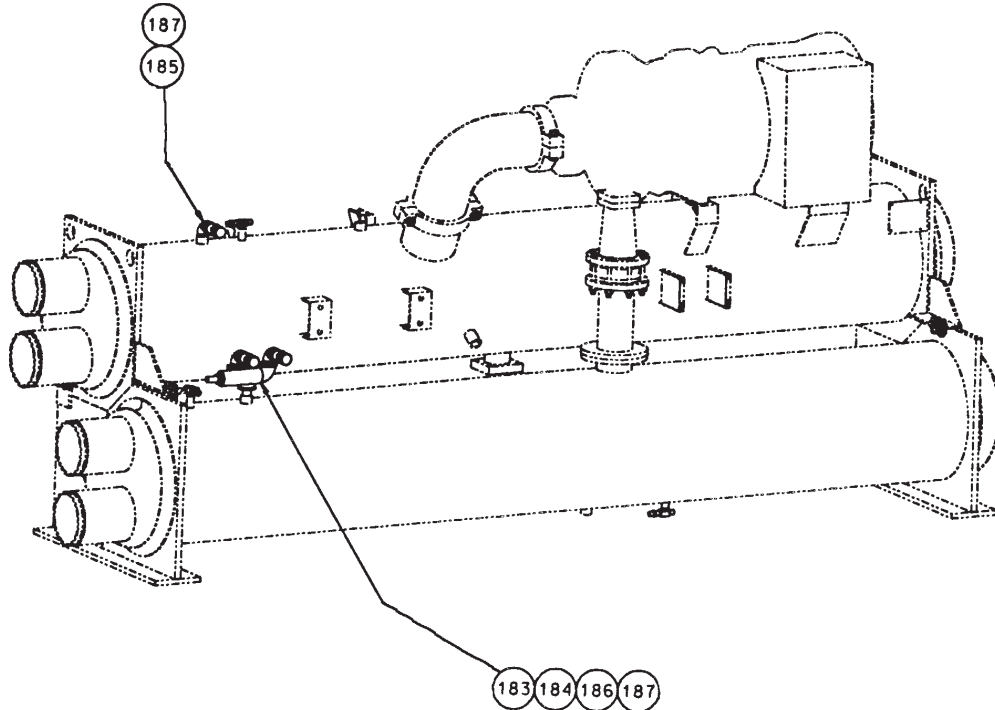
## Relief Valves- Non TEMA Vessels



Ref #	Qty.	Description	Part Number
183	1	Condenser 3-Way Shut Off Valve	735039946
184	1	Pipe Nipple	
		w/o Sound Insulation	735031797
		w/ Sound Insulation	071935501
185	1	Evaporator Relief Valve- 150 PSI	735045808
186	2	Condenser Relief Valve- 180 PSI (std.)	735045811
187	1	Service Valve	735039929

# Unit Assembly Components 1998- Present

## Relief Valves-TEMA Vessels



Ref #	Qty.	Description	Part Number
183	1	Condenser 3-Way Shut Off Valve	735039964
184	1	Pipe Nipple w/o Sound Insulation	735031797
		w/ Sound Insulation	071935501
185	1	Evaporator Relief Valve- 180 PSI 12' Units w/16", 20", 22" Evaporator	735045828
		12' Units w/24", 26" Evap. and all 16' Units	735045811
186	2	Condenser Relief Valve- 225 PSI (C19-1= D)	735045840
		Condenser Relief Valve- 250PSI (C19-1= E)	735045824
		Condenser Relief Valve- 275 PSI (C19-1= F)	735045826
		Condenser Relief Valve- 300 PSI (C19-1= G)	735045834
187	2	Elbow	735031239

### Evaporator Optional Dual Relief Valve/Relief

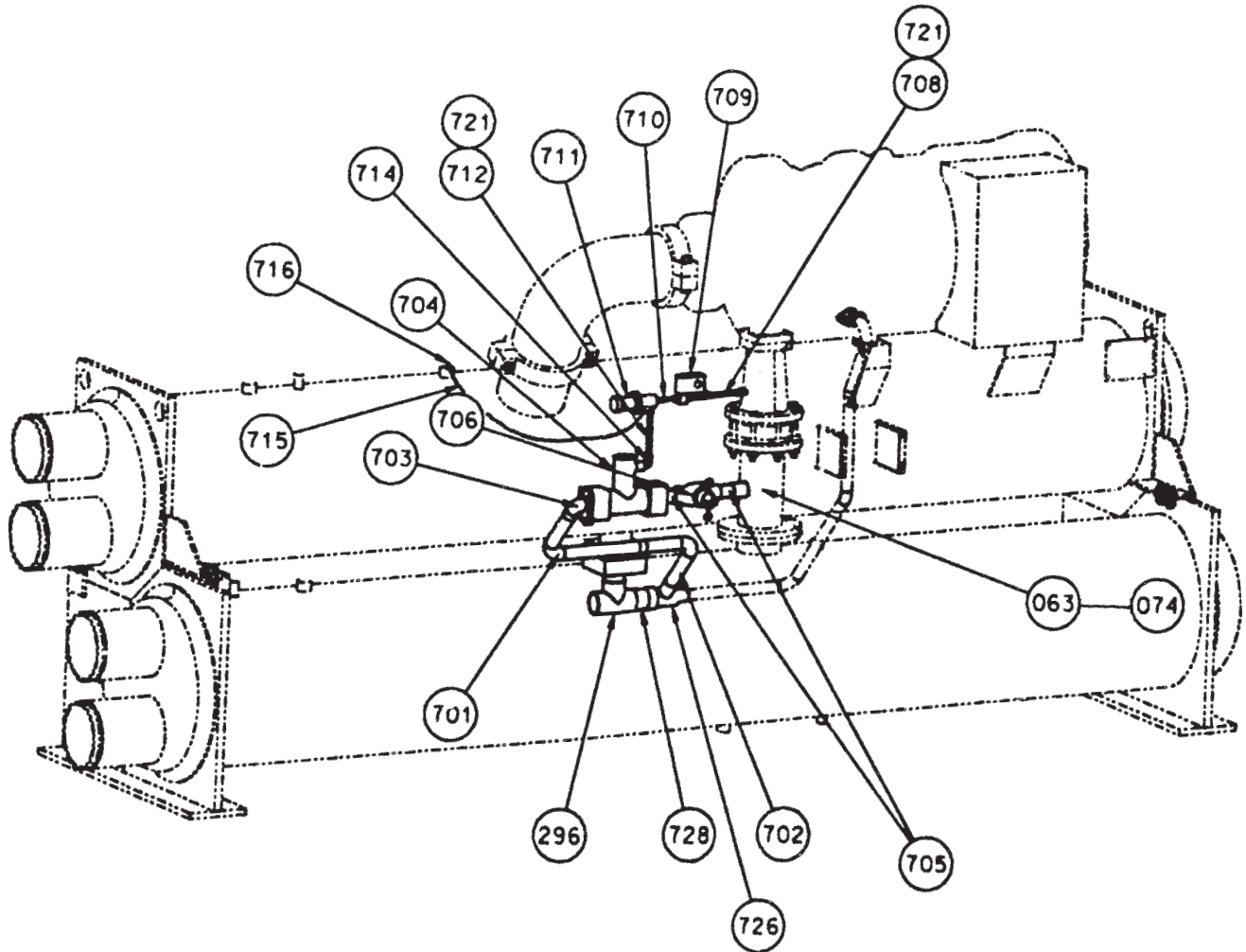


Ref #	Qty.	Description	Part Number
173	1	3-Way Shut Off Valve	735039964
174	1	Pipe Nipple	735031797
175	2	Evaporator Relief Valve- 180 PSI 12' Units w/16", 20", 22" Evaporator	735045828
		12' Units w/24", 26" Evap. and all 16' Units	735045811
177	2	Elbow	735031239



# Unit Assembly Components 1996- Present

## Hot Gas Bypass and Liquid Injection\*



\* Note- Liquid Injection was not used after 1993 when the Engineering Revision B compressor was in use, nor it was it used with the Revision C compressor. It was reinstated in 1998 when the Revision D compressor was introduced. The diagram above shows only the Hot Gas parts. The primary liquid injection components are listed on the following page.

# Unit Assembly Components 1996- Present

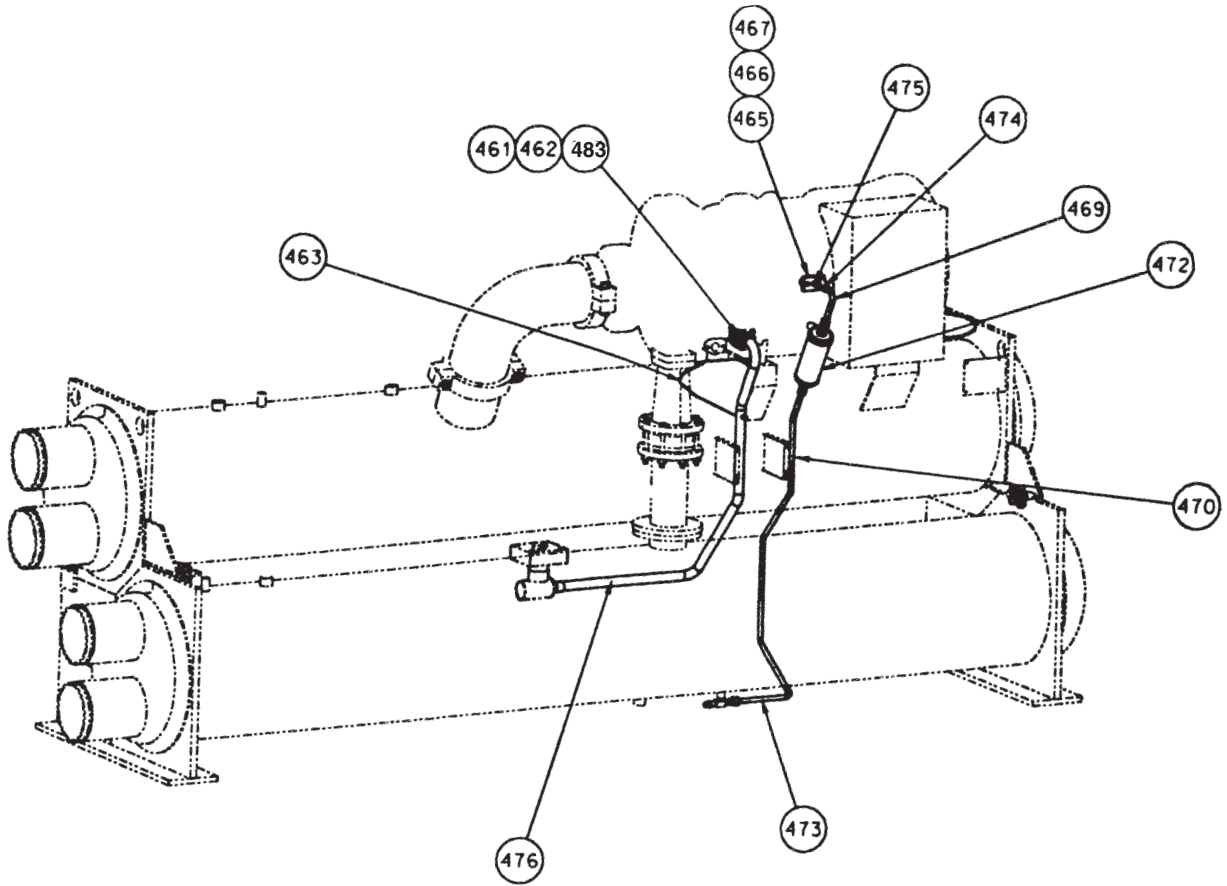
## Hot Gas Bypass and Liquid Injection Components

Ref #	Qty.	Description -----	Part Number
63	1	Pipe Units with Hot Gas Bypass PEH units 16"/20"/22" Evaporator -----	070400901
		TEH units 16"/20"/22" Evaporator-----	072901501
		PEH units 24"/26" Evaporator -----	070400902
		TEH units 24"/26" Evaporator-----	072903201
		Units w/o Hot Gas Bypass 16"/20"/22" Evaporator -----	P114PAAAAA
		24"/26" Evaporator-----	P154PAAAAA
74	1	Adapter- PEH units -----	735883901
		Adapter- TEH units-----	072901601
296	1	T -----	041117914
701	1	Tube- Hot Gas 16"/20"/22" Evaporator Until 4/98-----	072243801
		5/98 and later-----	350081701
		24"/26" Evaporator Until 4/98-----	070356801
		5/98 and later-----	350081601
702	1	Tube- Hot Gas-----	072243901
		Ball Valve- PEH Units -----	036562907
		Ball Valve- TEH Units-----	036562901
703	1	Elbow-----	041117408
704	1	Hot Gas Expansion Valve -----	735048609
		Expansion Valve Gasket Kit -----	735048676
705	2	Tube -----	070400703
706	1	Shut Off Valve -----	735039963
708	1	Tube- PEH Units-----	070400828
		Tube- TEH Units -----	070400805
709	1	Solenoid Valve -----	735048430
710	1	Tube- Hot Gas-----	070251001
711	1	Hot Gas Bypass Regulator Valve -----	735077202
712	1	Tube 16"/20"/22" Evaporator PEH units until 4/98 & all TEH units --	070400806
		PEH units 5/98 and later-----	070400831
		24"/26" Evaporator PEH units until 4/98 & all TEH units --	070400807
		PEH units 5/98 and later-----	070400831
714	1	Elbow-----	047350609
715	1	T Ass'y -----	735061431
716	1	T- PEH Units-----	041117803
		T- TEH Units -----	735034415
721	2	Flare Nut-----	000136100
726	1	T -----	041118067
728	1	Tube -----	775203804
N/S	1	Hot Gas Solenoid Valve Cable Assembly --	070813549
N/S	1	Liquid Injection Strainer-----	735030528
N/S	1	Liquid Injection Solenoid -----	735048459
N/S	1	Liquid Injection Ball Valve -----	036562905
N/S	1	Liquid Injection Solenoid Valve Cable -----	070813333
N/S	1	Well Assembly- TXV-----	775070201

# Unit Assembly Components 1996- Present

## Refrigerant Lines

### Diagram



# Unit Assembly Components 1996- Present

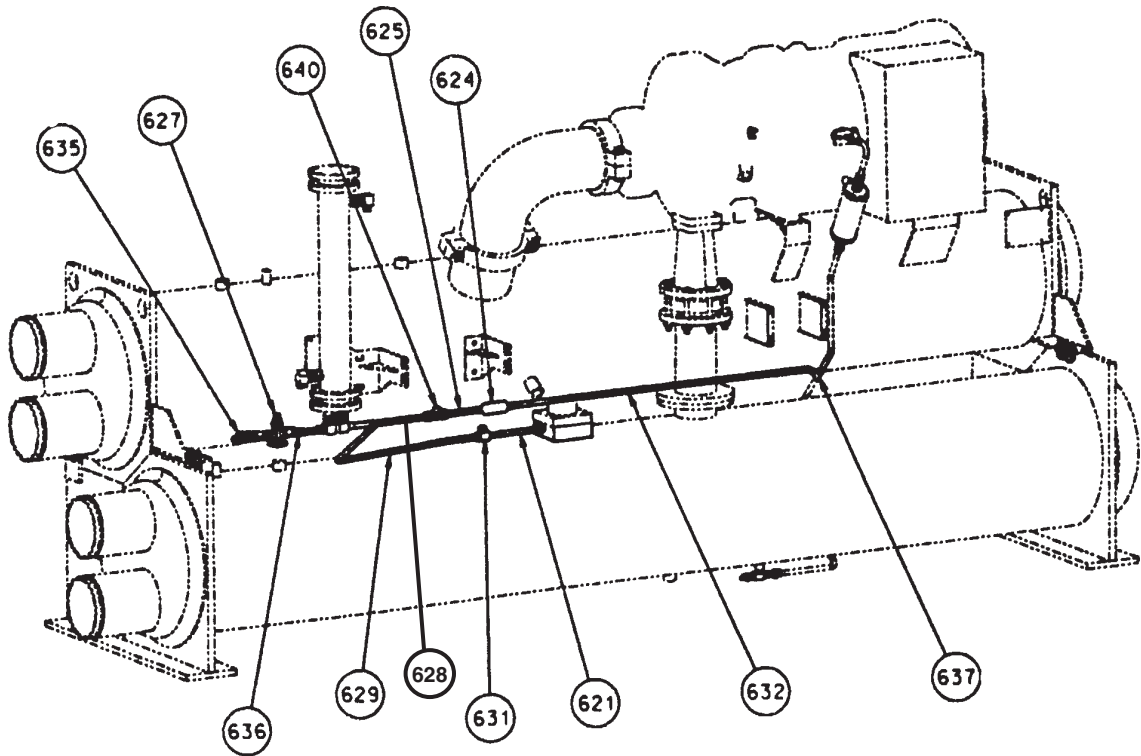
## Refrigerant Lines

### Components

Ref#	Qty.	Description	Part Number
461	2	Screw	735033846
462	1	Flange/O'Ring- Units with Rev. C Compressor	070290301
		Flange/O'Ring- Units with Rev. D Compressor	074614801
463	1	T Ass'y- Units with Rev. C Compressor	735061432
		T Ass'y- Units with Rev. D Compressor 15" Motor	735061432
		T Ass'y- Units with Rev. C Compressor 20" Motor	074825004
465	1	Gasket- M.C. Flange- Units with Rev. C Compressor	070199011
		Gasket- M.C. Flange- Units w/Rev. D Compressor 15" Motor	070199011
		Gasket- M.C. Flange- Units with Rev. D Compressor 20" Motor	070199020
466	1	Motor Cooling Flange- Units with Rev. C Compressor	
		Motor HP- 190,210,260,300,320,360	735414002
		Motor HP- 160,180,230,290	735414006
		Motor Cooling Flange- Units with Rev. D Compressor	074839715
467	2	Screw- M.C. Flange	735033846
469	1	Tube- Motor Cooling- Units with Rev. C Compressor	070014614
		Tube- Motor Cooling- Units with Rev. D Comp. 15" Motor	070014614
		Tube- Motor Cooling- Units with Rev. D Comp. 20" Motor	070014618
470	1	Tube Ass'y, Motor- Units with Rev. C Compressor	
		Stack- 1616	072168328
		Stack- 2018	072168318
		Stack- 2218/2222	072168328
		Stack- 2422/2622	072168368
		Tube Ass'y, Motor- Units with Rev. D Compressor 15" Motor	072168328
		Tube Ass'y, Motor- Units with Rev. D Compressor 20" Motor	074825026
472	1	Filter Drier- Until 9/99	021057417
		Filter Drier- 10/99 and later	735028827
473	1	Tube Ass'y, Motor- Units with Rev. C Compressor	
		Stack- 1616	072168342
		Stack- 2018	072168312
		Stack- 2218	072168352
		Stack- 2222	072168322
		Stack- 2422/2622	072168362
		Tube Ass'y, Motor- Units with Rev. D Compressor 15" Motor	
		Stack- 1616	074825028
		Stack- 2018/2218	074825029
		Stack- 2222/2422/2622	074868372
		Tube Ass'y, Motor- Units with Rev. D Compressor 20" Motor	074823101
474	1	Check Valve	735040332
475	1	Tube, Drain- Units with Rev. C Compressor	042879801
		Tube, Drain- Units with Rev. D Compressor 15" Motor	070206020
		Elbow- Units with Rev. D Compressor 20" Motor	041117308
476	1	Tube, Motor- Units with Rev. C Compressor	
		Stack- 1616/2018/2218/2222	070014601
		Stack- 2622	070014602
		Tube, Motor- Units with Rev. D Compressor 15" Motor	070851721
		Tube, Motor- Units with Rev. D Compressor 20" Motor	074825027
483	1	O'Ring- Flange	735073629

# Unit Assembly Components 1996- Present

## Refrigerant-Cooled (optional) Oil Cooler (shell & tube oil cooler shown) (Code 38= R)



### Units with Shell & Tube Oil Cooler

Ref#	Qty.	Description	Part No.
621	1	Tube Ass'y	
		Stack- 1616/2018	072168316
		Stack- 2218/2222/2622	072168326
624	1	Strainer	735030506
625	1	Tube	070206060
627	1	Expansion Valve- O.C.	070301501
628	1	Tube- Refrigerant Supply	
		Stack- 1616/2018/2218	074788301
		Stack- 2222	074790201
		Stack- 2422/2622	074795601
629	1	Tube- Oil Return	
		Stack- 1616	072932201
		Stack- 2018/2218/2222	072256601
		Stack- 2422/2622	072933501
631	1	Ball Valve	036562903
632	1	Tube	070206466
635	1	Tube- Expansion Valve	
		Stack- 1616	072932601
		Stack- 2018	072256801
		Stack- 2218/2222	072930101
		Stack- 2422/2622	072934201
636	1	Reducer	041116611
637	1	T	041117807
640	1	Check Valve	735040332
N/S	1	Evap Suction Bulb Well	070809040

### Units with Plate to Plate Oil Cooler

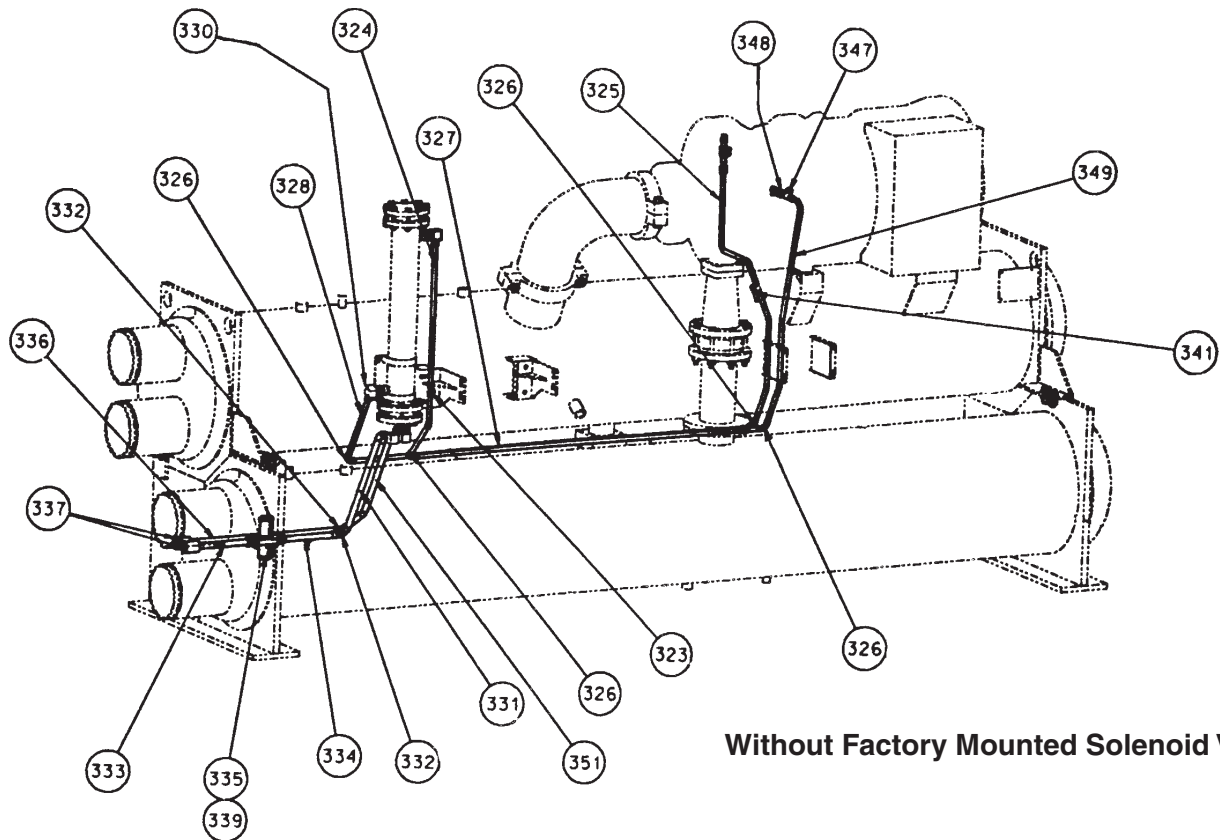
Ref#	Qty.	Description	Part No.
621	1	Tube Ass'y	070400808
624	1	Strainer	735030506
625	1	Tube	070206060
627	1	Expansion Valve- O.C.	070301501
628	1	Tube- Refrigerant Supply	
		Stack- 1616/2018/2218	074788301
		Stack- 2222	074790201
		Stack- 2422/2622	074795601
629	1	Tube- Oil Return	
		Stack- 1616/2018	074788101
		Stack- 2222	074790101
		Stack- 2422/2622	074795501
631	1	Ball Valve	036562904
632	1	Tube	070206550
635	1	Tube- Expansion Valve	
		Stack- 1616	074789401
		Stack- 2018	074788201
		Stack- 2218	074789501
		Stack- 2222/2422/2622	074790301
637	1	T	041117807
640	1	Check Valve	735040332
N/S	1	Evap Suction Bulb Well	070809040

# Unit Assembly Components 1996- Present

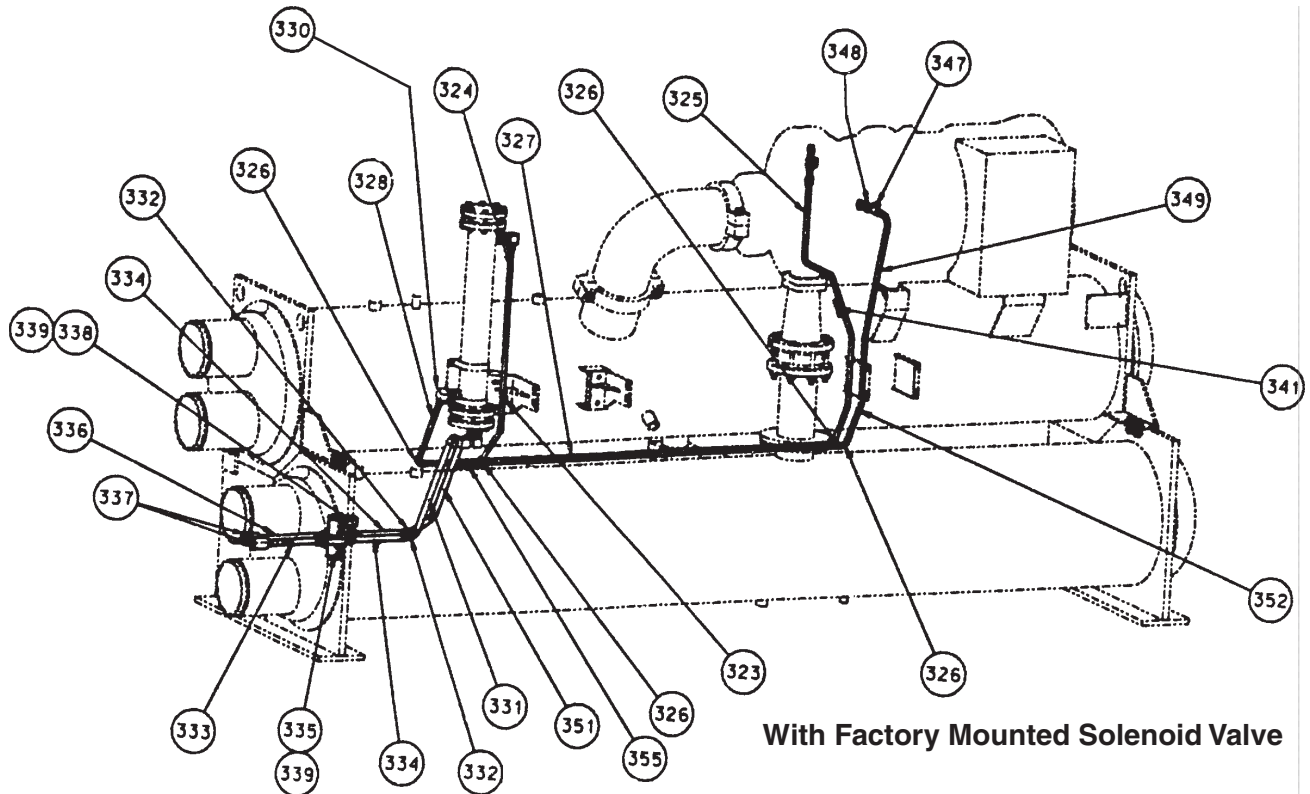
## Water-Cooled (optional) Oil Cooler (shell & tube oil cooler shown)

### (Code 38= W)

### Diagrams



**Without Factory Mounted Solenoid Valve**



**With Factory Mounted Solenoid Valve**

# Unit Assembly Components 1996- Present

## Water-Cooled (optional) Oil Cooler (shell & tube oil cooler shown)

### (Code 38= W)

### Components

Ref Qty.	Description-----	Part No.
323	1 T- Units w/ Shell & Tube Oil Cooler -----	041117807
	T- Units w/ Plate to Plate Oil Cooler -----	041117954
324	1 Tube -----	070402302
325	1 Tube Ass'y, Oil- Units with Rev C Comp.	
	16"/20"/22" Evap. -----	070011501
	24"/26" Evap.-----	070011502
	Tube Ass'y, Oil- Units with Rev. D Comp.	
	15" Motor-----	070140172
	20" Motor- 16"20" Evaporator-----	074331072
	20" Motor- 22"/24"/26" Evaporator-----	074331073
326	2* Elbow-----	041117206
	* Qty. became 4 after 5/96;	
	* Qty is 6 for units w/Plate to Plate OC	
327	1 Tube- Shell & Tube Units Only -----	070206545
328	1 Tube- Shell & Tube Units Only -----	070402310
330	4 Adapter -----	735044361
331	1 Tube, Oil Cooler Return- Shell & Tube	
	Stack- 1616/2018/2218/2222 -----	073077601
	Stack- 2422/2622 -----	072933801
	Tube, Oil Cooler Return- Plate to Plate	
	Stack- 1616/2018/2218/2222 -----	074778901
	Stack- 2422/2622 -----	074795401
332	2 Elbow-----	041117106
333	1 Tube- Shell & Tube Oil Coolers	
	12' Vessels-----	070208101
	16' Vessels-----	070208346
	Tube- Plate to Plate Oil Coolers -----	070208084
334	2 Tube, Water- 12' Vessels -----	070851001
	Tube, Water- 16' Vessels -----	070851011
335	1 Water Regulating Valve -----	735075405
336	1 Tube	
	Units w/ factory mounted solenoid	
	12' Vessels-----	070208126
	16' Vessels-----	070208370
	Units w/o factory mounted solenoid	
	Shell & Tube O.C.	
	12' Vessels -----	070208274
	16' Vessels -----	070208520
	Plate to Plate O.C.	
	12' Vessels -----	070208250
	16' Vessels -----	070208494
337	2 Adapter -----	071909501



**Unit Assembly Components 1996- Present**  
**Water-Cooled (optional) Oil Cooler (shell & tube oil cooler shown)**  
**(Code 38= W)**  
**Components, Continued**

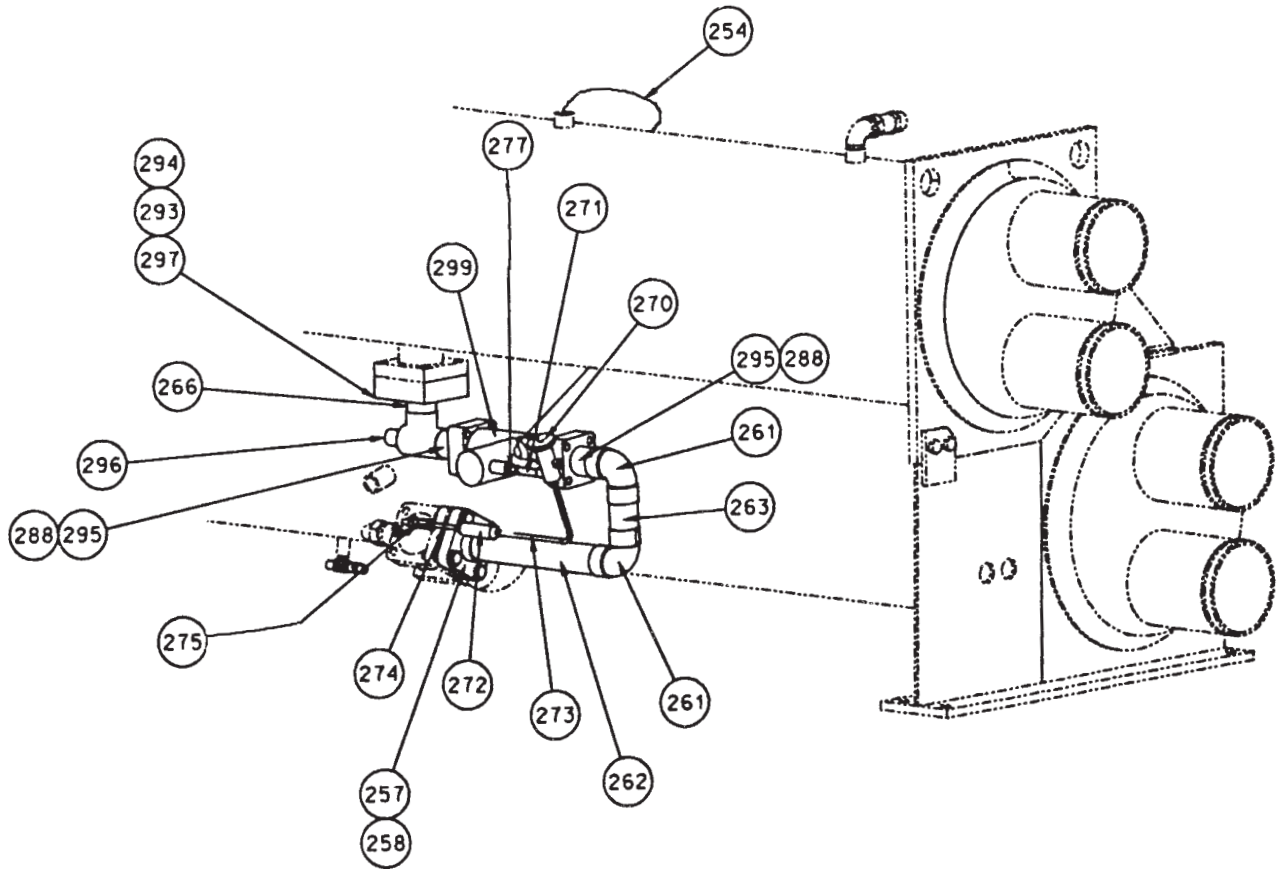
Ref Qty.	Description-----	Part No.
338	1 Solenoid Valve (Optional) -----	735048462
339	* Connector -----	735043914
	*Qty=4 on units w/solenoid      Qty=2 on units w/o solenoid	
341	1 Tube -----	735063023
347	1 Check Valve-----	735040332
348	1 Tube -----	070296001
349	1 Tube- Thrust Pump	
	Stack- 1616/2018/2218/2222 -----	073070401
	Stack- 2422/2622 -----	073072001
351	1 Tube, Oil Cooler Return- Shell & Tube OC	
	Stack- 1616/2018/2218/2222 -----	073077701
	Stack- 2422/2622 -----	072933701
351	1 Tube, Oil Cooler Return- Plate to Plate OC	
	Stack- 1616/2018/2218/2222 -----	074779001
	Stack- 2422/2622 -----	074795301
352	1 Tube- Thrust Pump	
	Units with Rev. C Comp.-----	073070301
	Units with Rev. D Comp. 15" Motor-----	073070301
	Units with Rev. D Comp. 20" Motor	
	16"/20" Evaporator -----	070599301
	22"/24"/26" Evaporator-----	070961501
355	1 Well	
	Units with Shell & Tube OC-----	070809040
	Units with Plate to Plate OC -----	070809042



# Unit Assembly Components 1996- Present

## Expansion Valve Piping

### Diagram

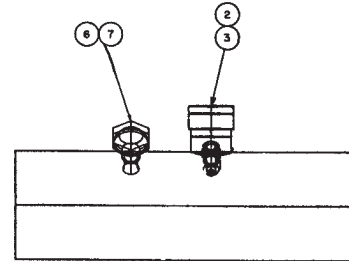


# Unit Assembly Components 1996- Present

## Expansion Valve Piping Components

Ref #	Qty.	Description -----	Part Number
254	1	T Ass'y-----	735061434
257	1	Flange Kit -----	735016404
258	1	Adapter -----	735049717
261	2	Coupling-----	041117112
262	1	Liquid Tube- until 12/98-----	070097015*
		Liquid Tube- 1/00 and later -----	072805701*
263	1	Tube -----	070400734
266	1	Tube	
		Stack- 1616/2018/2218/2222 ----	070400707
		Stack- 2422/2622 -----	735063919
270	1	Pilot Expansion Valve	
		Units to 190 Tons (3-4 Ton Valve)	735048618
		Over 190 Tons (7.5-9 Ton Valve) -	735048665
		TEH Units only -----	735048681
271	1	Tube -----	070400803
272	1	Strainer -----	735030502
273	1	Tube- Pilot Valve-----	070250801
274	1	Tube- Motor Cooling-----	070400802
275	1	Shut Off Valve-----	735039807
277	1	Coupling-----	735044212
288	2	Reducer- 150 Ton TXV only -----	041116629
293	1	O'Ring- Evap. Flange	
		Stack 1616 / 2018-----	735043674
		Stack 2218/2222/2422/2622 ----	735073636
294	4	Screw- Evap. Flange -----	
		Stacks 1616/2018/2218 -----	735033953
		Stacks 2222/2422/2622 -----	735033967
295	2	Tube	
		150 Ton TXV -----	735063940
		200/250/300 Ton TXV's -----	775203804
296	1	T	
		Units w/o Hot Gas Bypass -----	041118065
		Units with Hot Gas Bypass-----	041117814
297	1	Flange- Evap. Inlet	
		Stack- 1616/2018-----	070350501
		Stack- 2218/2222/2422/2622----	070356701
299	1	Main Expansion Valve- Unit Capacity:	
		150 Ton Valve (C27-1= H)-----	735048625**
		200 Ton Valve (C27-1= I)-----	735048624**
		250 Ton Valve (C27-1= J) -----	735048626**
		300 Ton Valve (C27-1= K)-----	735048627**
		400 Ton Valve (C27-1= L) -----	735048672***

**\*Liquid Tube Components- Detail**



**\*070097015 & 072805701**

Ref #	Qty.	Description -----	Part No.
2	1	Sight Glass Saddle --	070736401
3	1	Sight Glass -----	022427700
6	1	Valve Core -----	026541100
7	1	Valve Cap -----	032943500

**\*\*Main Expansion Valve Gasket Kits**

Valve-----	Part Number
735048625 -----	NA
735048624 -----	735048675
735048626 -----	735048675
735048627 -----	735048675
735048672 -----	735048675

\*\*\*Not used with Rev. D Compressor

# Unit Assembly Components

## Vessel Insulation

### Evaporator

The Evaporator may be ordered with 3/4" or 1 1/2" insulation on the vessel and piping. The part numbers are the same and the 3/4" insulation is double-layered on units using the 1 1/2" application. The Evaporator Vessel nomenclature is as follows:

Vessel	Application	Quantity	Part Number
<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">Vessel Diameter</div> <div style="text-align: center;"> <u>2212</u>            / \         </div> <div style="margin-left: 10px;">Vessel Length</div> </div>			
1612	3/4"	72 square feet	047662050
2012	3/4"	84 square feet	047662050
2016	3/4"	106 square feet	047662050
2212	3/4"	90 square feet	047662050
2216	3/4"	115 square feet	047662050
2412	3/4"	103 square feet	047662050
2416	3/4"	131 square feet	047662050
2612	3/4"	103 square feet	047662050
2616	3/4"	131 square feet	047662050
1612	1 1/2"	135 square feet	047662050
2012	1 1/2"	160 square feet	047662050
2016	1 1/2"	206 square feet	047662050
2212	1 1/2"	172 square feet	047662050
2216	1 1/2"	223 square feet	047662050
2412	1 1/2"	198 square feet	047662050
2416	1 1/2"	255 square feet	047662050
2612	1 1/2"	198 square feet	047662050
2616	1 1/2"	255 square feet	047662050

### Condenser

The Condenser may be ordered with standard 3/4" foam insulation, or with a Sound Insulation package for the Condenser Vessel and Discharge Line. The Condenser Vessel nomenclature is as follows:

Vessel	Application	Quantity	Part Number
<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">Vessel Diameter</div> <div style="text-align: center;"> <u>2212</u>            / \         </div> <div style="margin-left: 10px;">Vessel Length</div> </div>			
1612	No Sound	60 square feet	047662050
1812	No Sound	70 square feet	047662050
2212	No Sound	70 square feet	047662050
2216	No Sound	95 square feet	047662050
1612	Sound	72 square feet	047662050
		52 square feet	070715401
1812	Sound	90 square feet	047662050
		58 square feet	070715401
2212	Sound	92 square feet	047662050
		80 square feet	070715401
2216	Sound	130 square feet	047662050
		110 square feet	070715401

### Evaporator/Condenser Heads

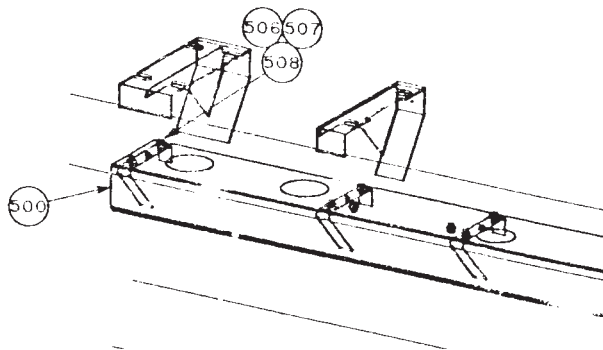
The Insulation used on the Evaporator and Condenser Heads is the same. As with the Evaporator Vessel each head may have 3/4" or 1 1/2" insulation.

Diameter	Application	Quantity	Part Number	Diameter	Application	Quantity	Part Number
16	3/4"	6 square feet	047662050	16	1 1/2"	12 square feet	047662050
18	3/4"	7 square feet	047662050	18	1 1/2"	14 square feet	047662050
20	3/4"	8 square feet	047662050	20	1 1/2"	16 square feet	047662050
24	3/4"	11 square feet	047662050	22	1 1/2"	18 square feet	047662050
26	3/4"	11 square feet	047662050	24	1 1/2"	24 square feet	047662050
				26	1 1/2"	24 square feet	047662050

# Self-Manufactured Starter

From the late 1970's until the early 1990's a self-manufactured starter panel was offered for units using CE063 compressors. The starters were only offered on 460/480/60/3 or 380/400/50/3, and was rarely used. Most units have purchased starters. Below is a list of primary components used in the starters manufactured by McQuay International (SnyderGeneral).

Qty.	Description	Part Number
<b>Main Contactor Panel- 210 HP Motor</b>		
2	Contact- 1M, 2M	070181601
1	Contact- 2S	070181602
<b>Main Contactor Panel- 260/300 HP Motor</b>		
3	Contact- 1M, 2M, 2S	070181601
<b>Main Contactor Panel- Common Parts</b>		
2	Interlock- L-56	735075821
1	Interlock- L-56J	735075822
1	Interlock	735075823
<b>Closed Transition Panel</b>		
1	Contact- 2S	735021711
1	Interlock	735021725
1	TRP Time Delay Relay- 2 Seconds	735005921
1	Resistor 15 OHM	735003223
1	Resistor 100 OHM	735003224
1	Power Transformer	735083506
1	Power Transformer Fuse- 20 Amp	735088501
2	Fuse- 15A	042753122
<b>Closed Transition Panel Main Resistors</b>		
3	210HP Motors- .94 OHM	735080805
3	260/300HP Motors- .62 OHM	735080803
<b>Overloads</b>		
3	210 HP Motors- 125-173 RLA	735075853
	210 HP Motors- 174-225 RLA	735075854
	210 HP Motors- 226-273 RLA	735075855
	260/300 HP Motors- 174-225 RLA	735075854
	260/300 HP Motors- 226-313 RLA	735075855
	260/300 HP Motors- 314-365 RLA	735075857
<b>Amp/ Volt Meter Assembly</b>		
1	Amp Meter 0-190 RLA	735006405
1	Amp Meter 191- 365 RLA	735006403
1	Volt Meter	735006406
1	Rotary Switch	735003923
1	Control Transformer 0-190 RLA	735076502
1	Control Transformer 191-365 RLA	735076505
<b>Ground Fault</b>		
1	Ground Fault Relay	736017401
1	Ground Fault Relay Sensor	736017402
1	Indicator Light- Red	735005128



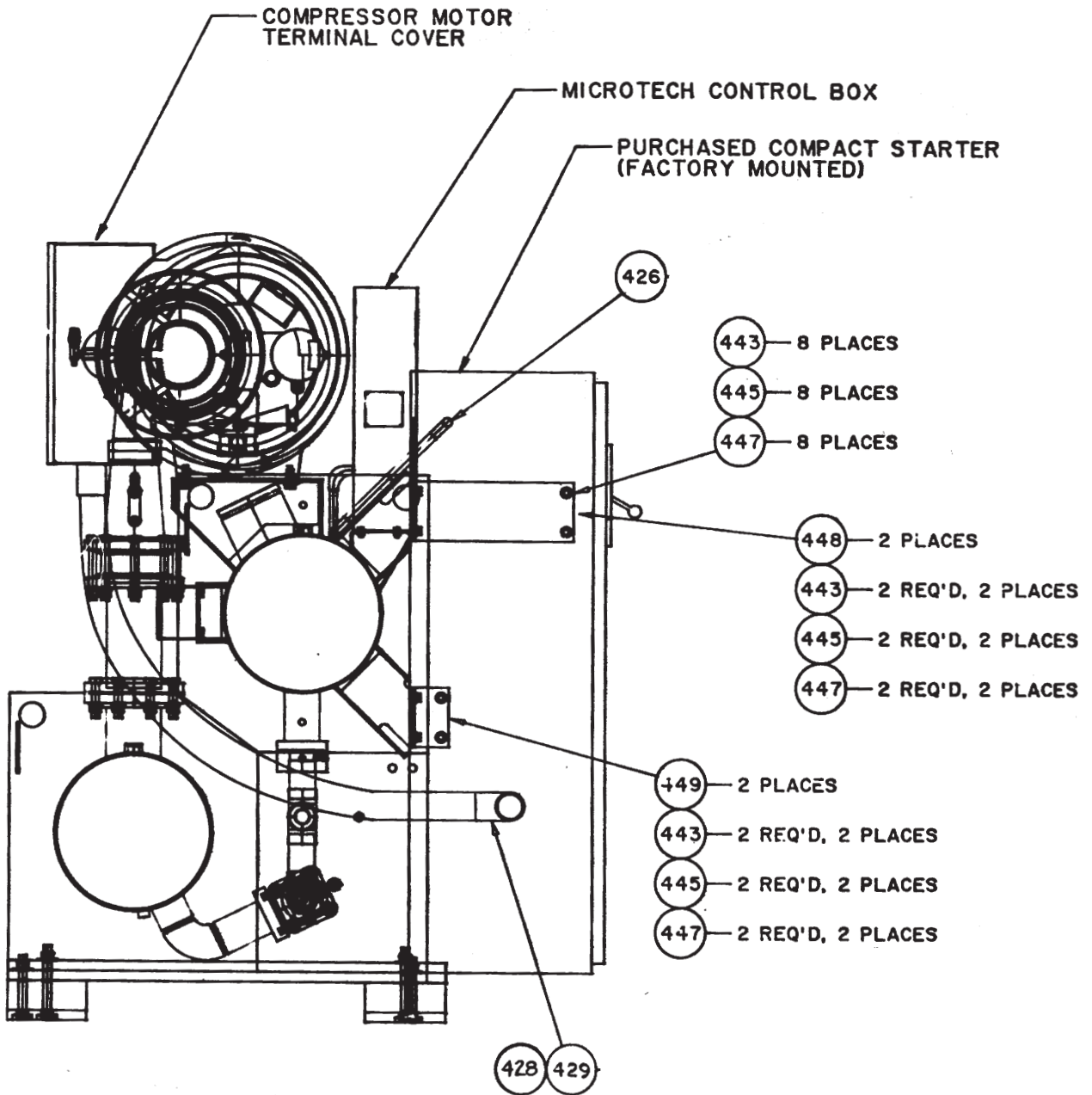
## Self-Manufactured Starter Mounting

Ref. #	Qty.	Description	Part Number
500	1	Shelf	070013205
506	10	Washer	040500316
507	10	Lock Washer	048164812
508	10	Screw	735033230

# Factory Mounted Starter

## Mounting Components and Cables

1985-1996



# Factory Mounted Starter Mounting Components and Cables 1985-1996, Continued

## Common Parts

Ref #	Qty.	Description -----	Part No.
426	1	Cable -----	070798978
443	8	Nut -----	735029505
445	8	Screw -----	735033246
447	8	Washer -----	048164814
448	2	Angle -----	070677901
449	2	Angle -----	070360901

The part numbers for the cables connecting the starter to the motor terminal box (ref # 428 and 429) are determined by the Motor RLA (printed on the compressor data plate). See the list below.

## Cables

### Motor RLA= 238

#### Ref # Qty. Part No.

16", 20", 22" Evaporators

428 1 074130951

26" Evaporators

428 1 074130921

### Motor RLA= 253

#### Ref # Qty. Part No.

16", 20", 22" Evaporators

428 1 072855951

26" Evaporators

428 1 072855921

### Motor RLA= 273

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 071512723

### Motor RLA= 278

#### Ref # Qty. Part No.

16", 20", 22" Evaporators

428 1 074130952

26" Evaporators

428 1 074130922

### Motor RLA= 298

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 074130923

429 1 074130924

### Motor RLA= 317

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 072855922

429 1 072855923

### Motor RLA= 342

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 071512724

429 1 071512725

### Motor RLA= 348

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 074130925

429 1 074130926

### Motor RLA= 360

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 072855924

429 1 072855925

### Motor RLA= 399

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 074130927

429 1 074130928

### Motor RLA= 411

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 072855926

429 1 072855927

### Motor RLA= 450

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 071512726

429 1 071512727

### Motor RLA= 460

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 074130929

429 1 074130930

### Motor RLA= 479

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 072855928

429 1 072855929

### Motor RLA= 546

#### Ref # Qty. Part No.

All Evaporator Diameters

428 2 071512728

### Motor RLA= 684

#### Ref # Qty. Part No.

All Evaporator Diameters

428 2 071512729

429 2 071512730

### Motor RLA= 696

#### Ref # Qty. Part No.

All Evaporator Diameters

428 1 074130925

429 1 074130926

### Motor RLA= 720

#### Ref # Qty. Part No.

All Evaporator Diameters

428 2 072855924

429 2 072855925

### Motor RLA= 900

#### Ref # Qty. Part No.

All Evaporator Diameters

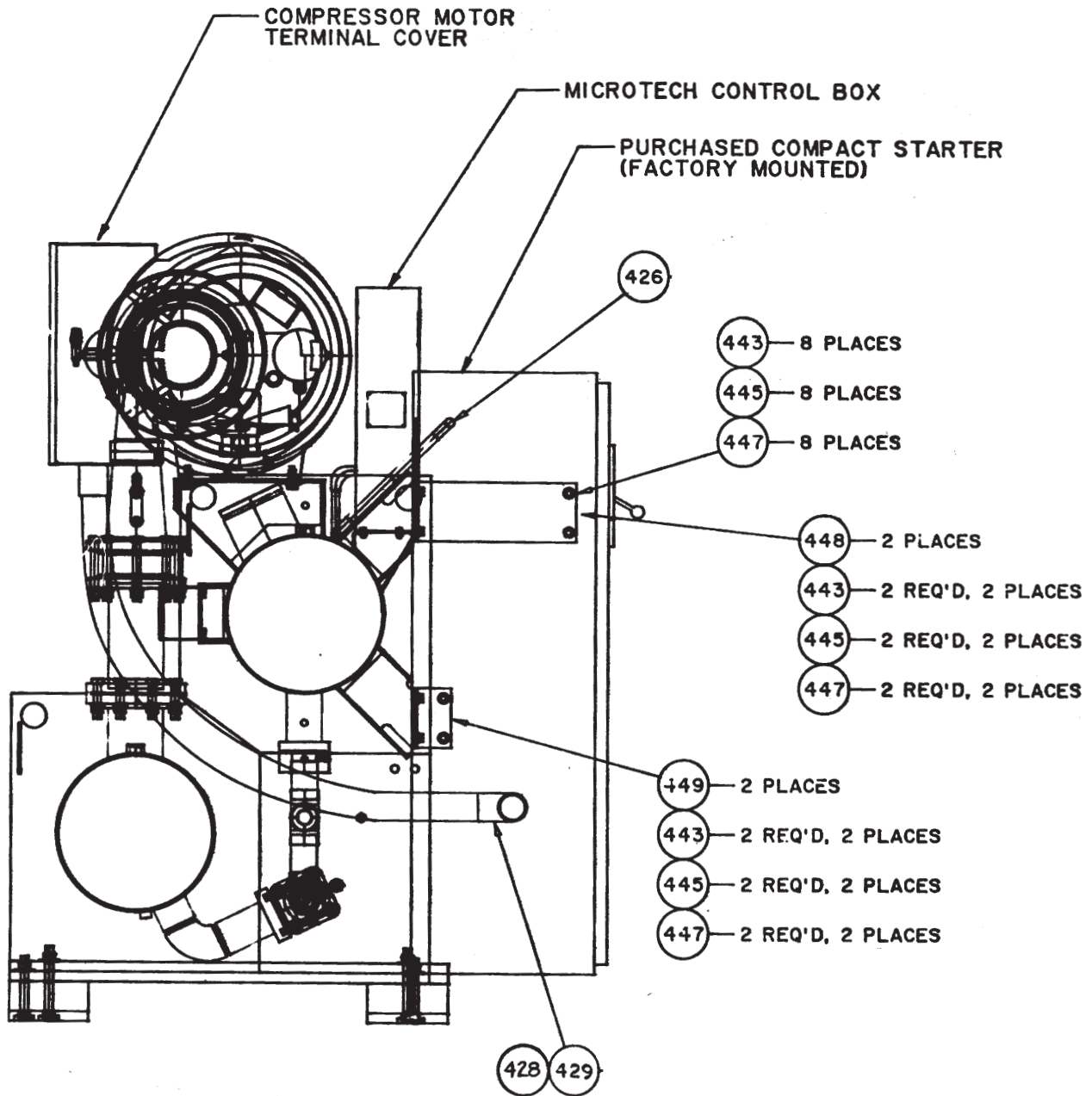
428 2 071512731

# Factory Mounted Starter

## Mounting Components and Cables 1996- Present

### Rev. C & Rev. D Compressor

### Diagram





# Factory Mounted Starter

## Mounting Components and Cables 1996- Present

### Rev. C Compressor

### Components

#### Common Parts

Ref #	Qty.	Description -----	Part No.
426	1	Cable-----	070798978
443	12	Nut-----	735029505
445	12	Screw-----	735033846
447	20	Washer-----	048164814
448	2	Angle-----	070961301
449	2	Angle-----	070014411

The part numbers for the cables connecting the starter to the motor terminal box (ref # 428 and 429) are determined by the Motor RLA (printed on the compressor data plate). See the list below.

#### Cables

##### Motor RLA= 238

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074130951
<i>26" Evaporators</i>		
428	1	074130921

##### Motor RLA= 278

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074130952
<i>26" Evaporators</i>		
428	1	074130922

##### Motor RLA= 298

Ref #	Qty.	Part No.
<i>All Evaporator Diameters</i>		
428	1	074130923
429	1	074130924

##### Motor RLA= 348

Ref #	Qty.	Part No.
<i>All Evaporator Diameters</i>		
428	1	074130925
429	1	074130926

##### Motor RLA= 399

Ref #	Qty.	Part No.
<i>All Evaporator Diameters</i>		
428	1	074130927
429	1	074130928

##### Motor RLA= 460

Ref #	Qty.	Part No.
<i>All Evaporator Diameters</i>		
428	1	074130929
429	1	074130930

##### Motor RLA= 696

Ref #	Qty.	Part No.
<i>All Evaporator Diameters</i>		
428	1	074130925
429	1	074130926



# Factory Mounted Starter

## Mounting Components and Cables 1996- Present

### Rev. D Compressor Components

#### Common Parts

Ref #	Qty.	Description	Part No.
426	1	Cable	070829980
443	16	Nut	735029505
445	16	Screw	735033846
447	16	Washer	048164814
448	2	Angle	070961302
449	2	Angle	070014411

The part numbers for the cables connecting the starter to the motor terminal box (ref # 428) are determined by the Motor RLA (printed on the compressor data plate). See the list below.

#### Cables- 15" Motors

##### Motor RLA= 238, 278, 298

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074867501
<i>24", 26" Evaporators</i>		
428	1	074867510

##### Motor RLA= 348

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074867502
<i>24", 26" Evaporators</i>		
428	1	074867511

##### Motor RLA= 399

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074867503
<i>24", 26" Evaporators</i>		
428	1	074867512

##### Motor RLA= 460

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074867504
<i>24", 26" Evaporators</i>		
428	1	074867513

##### Motor RLA= 696

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	2	074867501
<i>24", 26" Evaporators</i>		
428	2	074867510

#### Cables- 15" Motors

##### Motor RLA= 238, 278, 298

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074867550
<i>24", 26" Evaporators</i>		
428	1	074867560

##### Motor RLA= 348

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074867551
<i>24", 26" Evaporators</i>		
428	1	074867561

##### Motor RLA= 399

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074867552
<i>24", 26" Evaporators</i>		
428	1	074867562

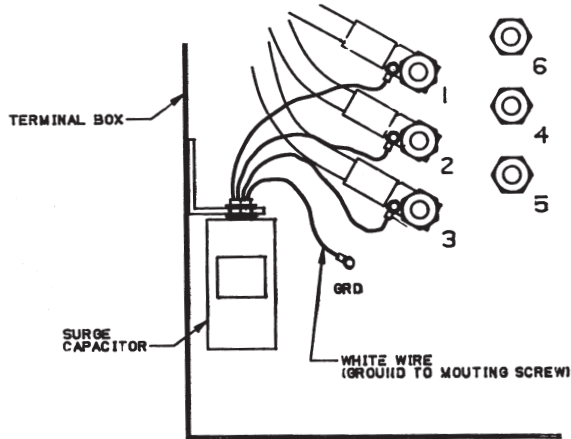
##### Motor RLA= 460

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	1	074867553
<i>24", 26" Evaporators</i>		
428	1	074867563

##### Motor RLA= 696

Ref #	Qty.	Part No.
<i>16", 20", 22" Evaporators</i>		
428	2	074867551
<i>24", 26" Evaporators</i>		
428	2	074867561

## Surge Capacitor



These Surge Capacitors are used in all Voltage applications except:

- 3300/60/3
- 3300/50/3
- 4160/60/3
- 2400/60/3

### Description

### Part No.

Surge Capacitor, 0-480V-----	736017502
Surge Capacitor, 481-600V -----	736017503
Surge Capacitor Label-----	072922701

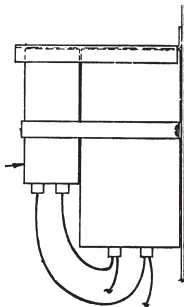
## Power Correction Capacitor

The Surge Capacitor is standard. The Power Correction is optional and can be used on a unit with or without the Surge Capacitor.

### KVAR----- Part Number

17.5 -----	047938526
30-----	047938531
35-----	736012912
40-----	736012914
60-----	736012916

## 50 Hz Capacitor Modification



Entire Assembly (includes wiring, strap, bracket and capacitor): 775111401

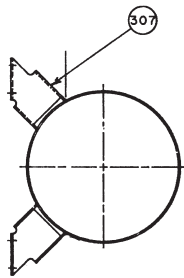
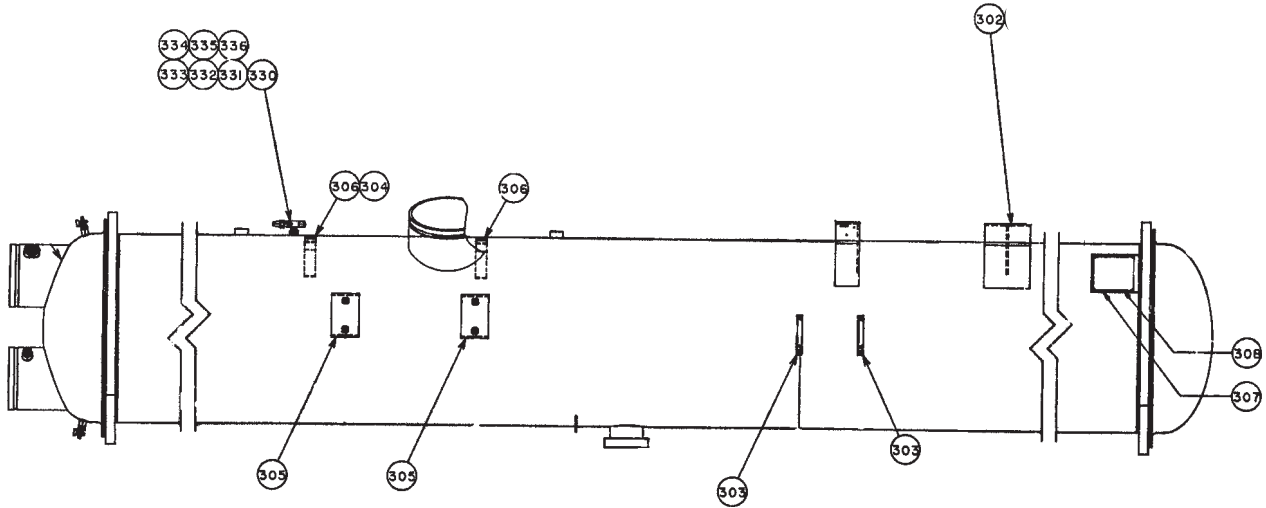
Capacitor Only (25MFD/370V): 735067402

## Flow Switch Option

Standard Pressure (150 PSI), 3"- 8" Pipe, Single Pole:	017503300	2
High Pressure (250-300 PSI), 3"- 8" Pipe, Single Pole:	070180401	2

# Mounting Brackets

## Compressor/Lube Box/Oil Pump/ ControlBox/Starter/Oil Cooler



**end view**

Ref #	Qty.	Description -----	Part No.
<b>Mounting Bracket:</b>			
302	1	Compressor	
		1616 Stack -----	074153502
		2018 Stack -----	074153403
		2218/2222/2622-----	074153302
		2422 Stack -----	074154302
303	2	Lube Box	
		1616 Stack-----	744439004
		2018/2218/2222----	744439002
		2422 Stack-----	073060701
		2622 Stack-----	744439002
305	2	Oil Pump	
		1616 Stack -----	070014453
		2018 Stack -----	070014452
		2218/2222 -----	070014402
		2422 Stack -----	074144901
		2622 Stack -----	070014401
306	2	Control Box	
		1616 Stack -----	070013253
		All other Stacks----	070013251
307	2	Factory Mounted	
		Starter-----	070460101
N/S	2	Oil Cooler Bracket----	070192101
308	1	Dataplate-----	719813601
330	1	Shut Off Valve-----	735039929
331	1	Flare Nut -----	000140300
332	1	Flare Nut -----	000028600
333	1	Bonnet-----	047666702
334	1	Bonnet-----	047666703
335		Sealant -----	735026317
336		Cleaner-----	735026372

# Control Box- Model 180 (1987-94)

## Legend & Software Nomenclature

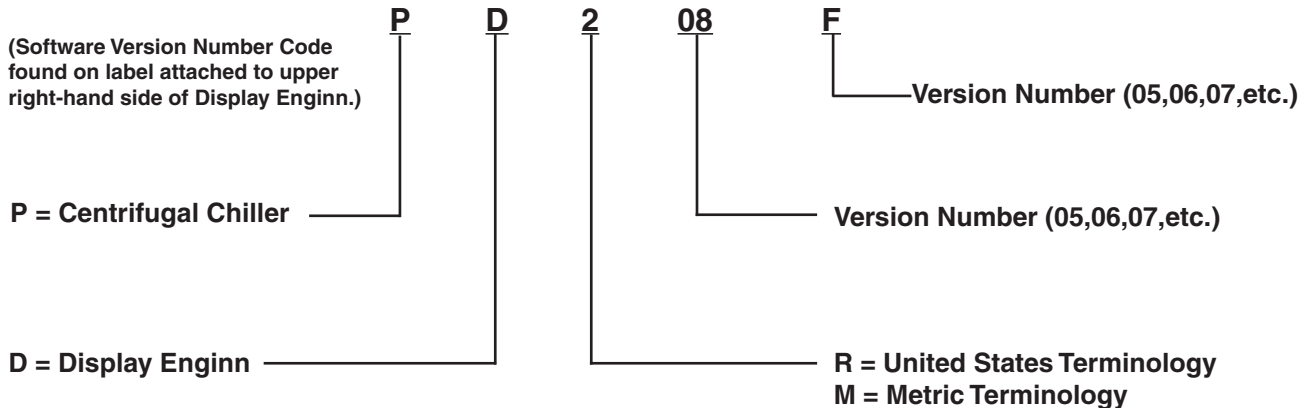
### LEGEND

<p>A ..... Alarm, Relay Coil          CAP ..... Capacitor          CB ..... Circuit Breaker          CHW ..... Evaporator Flow Switch          CHWI ..... Evaporator Water Interlocks          CHWR ..... Evaporator Water Pump Relay          CW ..... Condenser Flow Switch          CWI ..... Condenser Water Interlocks          CWR ..... Condenser Pump Water Relay          C1,C2 ..... Cooling Tower Fan Relay          FT ..... Safety Fault Trip Relay          G ..... Green Light (Micro Status)          GD ..... Guardistor Relay          HG ..... Hot Gas Solenoid          HP ..... High Pressure Relay          L1 ..... Liquid Injection Solenoid          M<sub>A</sub> ..... Contactor Auxiliary          MCR ..... Compressor Motor                    Starter Coil Relay (Starter)          MHP ..... Mechanical/Electrical                    High Pressure Control          MLP ..... Mechanical/Electrical                    Low Pressure Control</p>	<p>MOV ..... Metal Oxide Varistor          OC ..... Oil Cooler Solenoid          OD ..... Oil Pressure Differential Switch          OGT ..... Oil Gauge Pressure                    Transducer          OL ..... Overload          OP ..... Oil Pump Contactor          PT ..... Pneumatic Pressure                    Transducer (Optional)          R ..... Red Light (Unload)          SA, SB ..... Vane Control Solenoids          SG ..... Surgeguard Relay          SW1 ..... Panel Start/Stop Switch          SW2 ..... Remote Start/Stop Switch          TO ..... Timed Open Contacts          TR-1,TR-2,TR-3 ..... Transformer (24 VAC CT)          TS1,TS2,TS3,TS4 ..... Daughter Board                    Terminal Strips          VC ..... Vane Close Switch          VR ..... Voltage Relay          Y ..... Yellow Light (Load)</p>
--	---

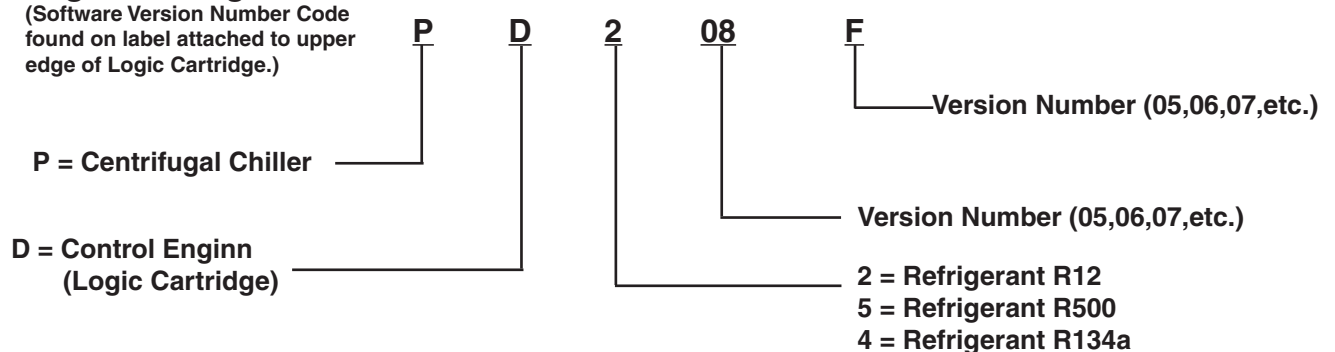
### Software Version Number Code Information

The Software Version Number Code must be supplied when ordering the Display Enginn or the Logic Cartridge.

#### Display Enginn Code:

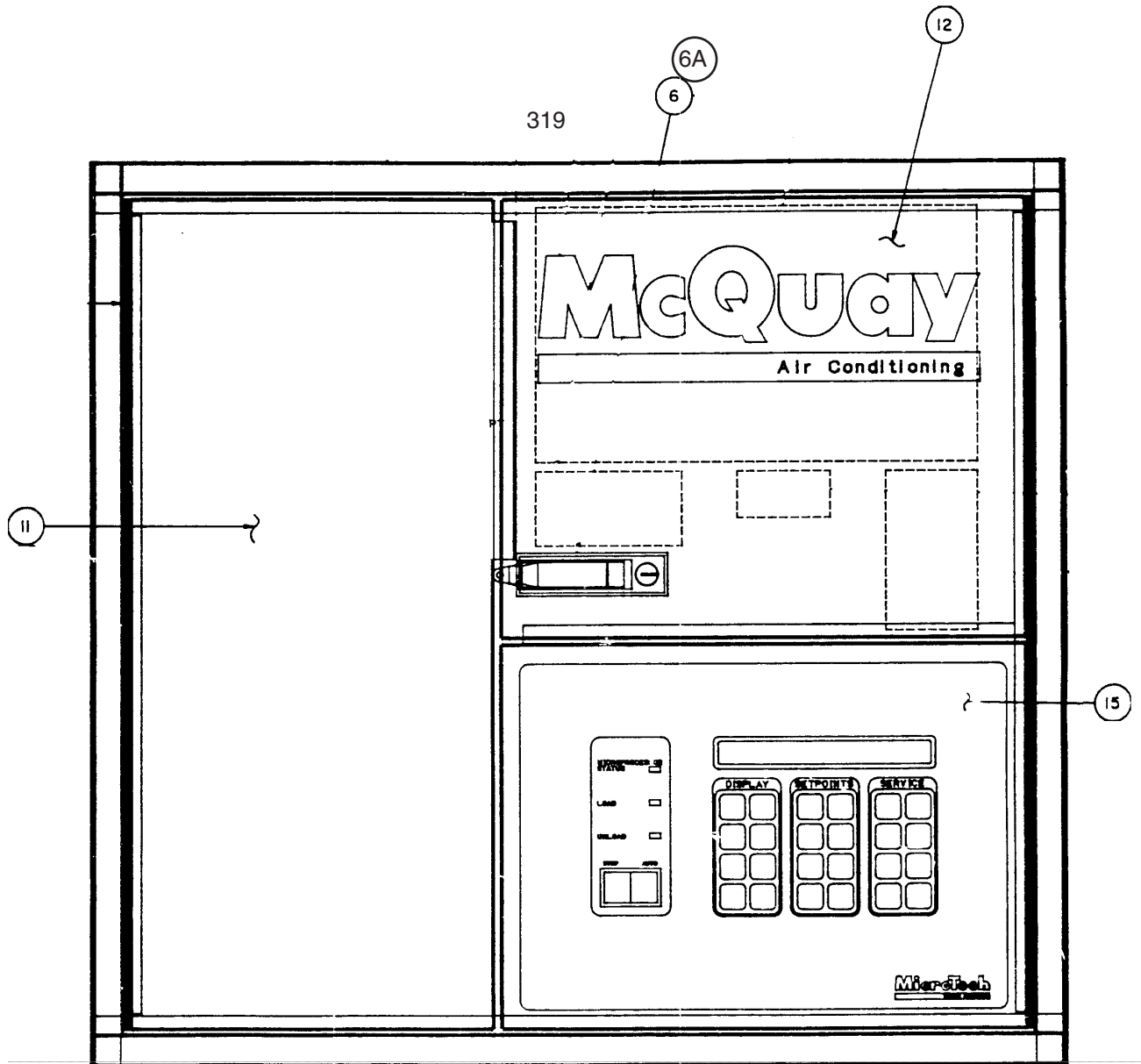


#### Logic Cartridge Code:



# Control Box- Model 180 (1987-94)

## Front Panel



Ref#	Part No.	Qty.	Description
	070812414	1	Complete Assembled Microtech Panel <sup>1a</sup>
6	350065401 *	1	Door Latch and Lock w/Key
6A	070184202	1	Key, Door Latch
11	070494101	1	Door Panel, Field Terminal Connection
12	350108101 *	1	Door Panel, Control
15	070795301	1	Display Panel Door Assembly (See Display Engine)

<sup>a</sup> When ordering panel please specify: 1) U.S. or metric terminology, 2) type of refrigerant, 3) software version. Assembly includes all sensors.

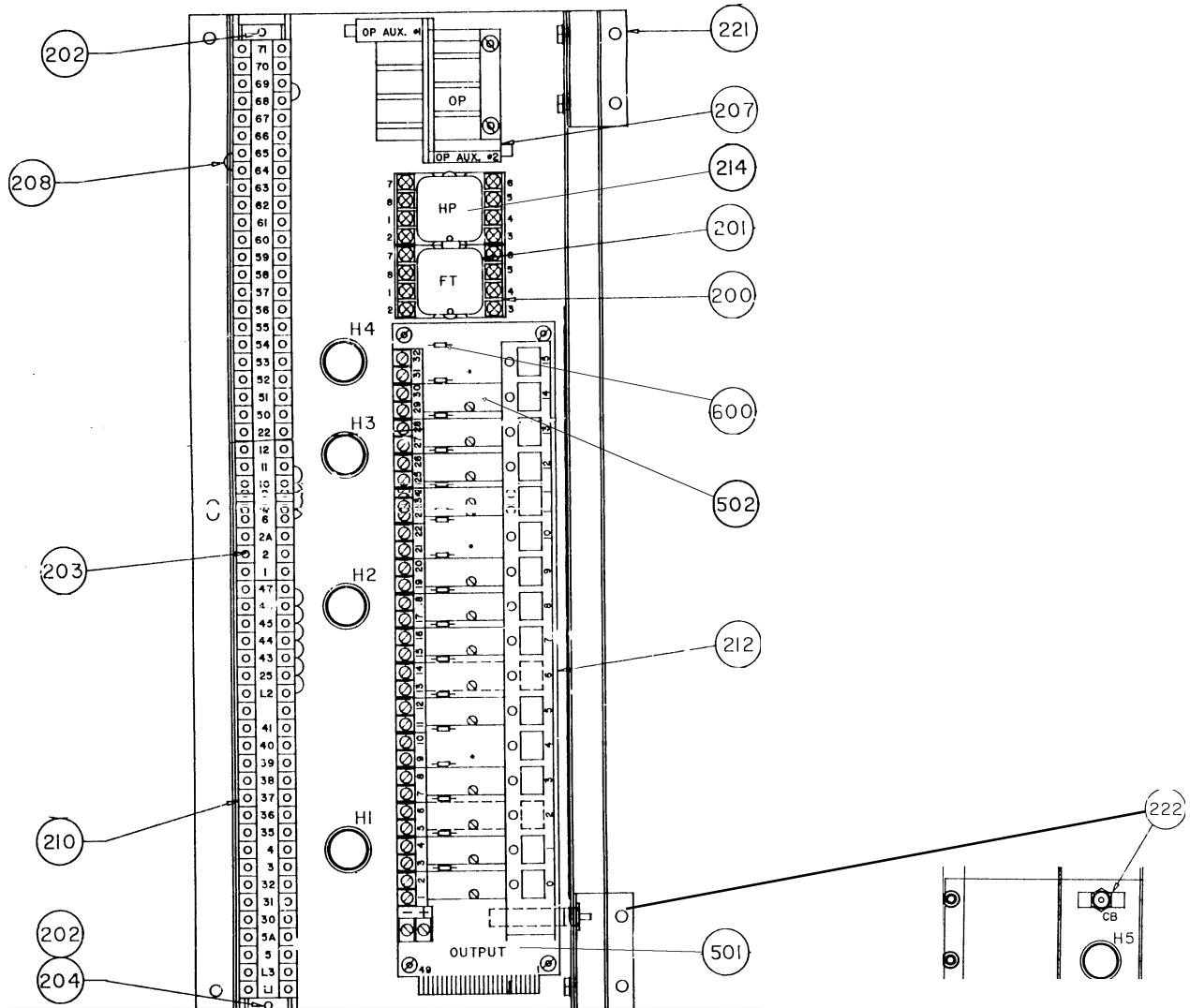
<sup>1</sup> Software Version Code Number must be specified or most current version will be used.

\* The door Latch/Lock has been changed. The new Latch is 1/2" shorter horizontally than the original.

On units built before 3/99, if you need to replace either the Latch or the Control Door, you will need to replace both.

# Control Box- Model 180 (1987-94)

## Field Connection and Output Board Area Diagrams

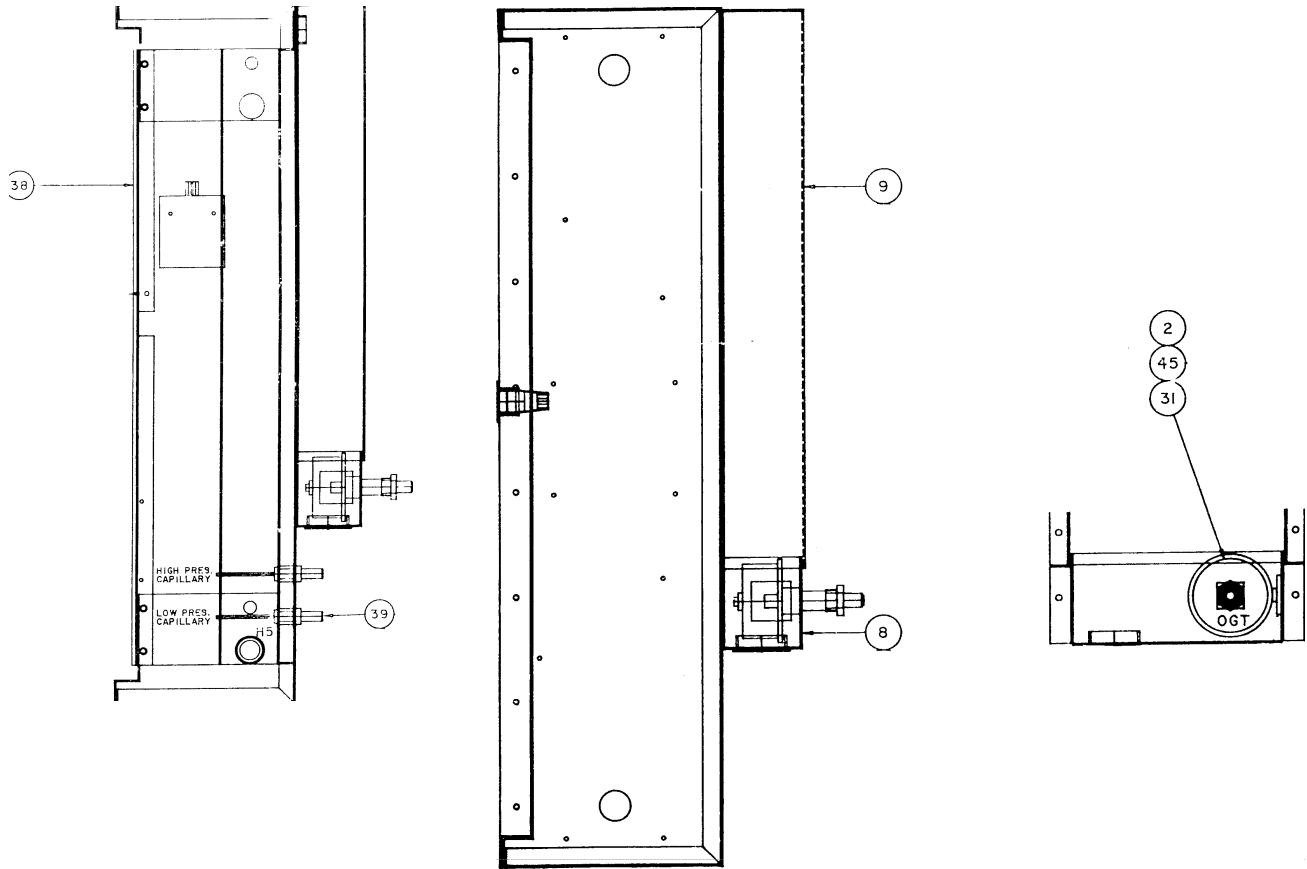


Ref#	Part Number	Qty.	Description
200	735003105	1	Socket, Relay
201	070191201	1	Relay, Fault
202	735073104	2	Clamp, Terminal Block
203	735073101	55	Terminal Block
204	735073102	1	End, Terminal Block
207	735020618	1	Oil Pump Contactor w/Interlocks
208	735073105	11	Jumper, Terminal Block
210	070695030	1	Mount, Terminal Block
212	070795401	1	Output Board Assembly
214	735020820	1	Relay, High Pressure
221	070704001	2	Bracket, Shelf
222	735073301	1	Circuit Breaker, 3 Amp
501	049265501	1	Output Board
502	049265601	**	Relay, Solid State
600	735088508	16	Fuses, Output Board (Little Fuse #275005)

\*\* Quantity as required.

# Control Box- Model 180 (1987-94)

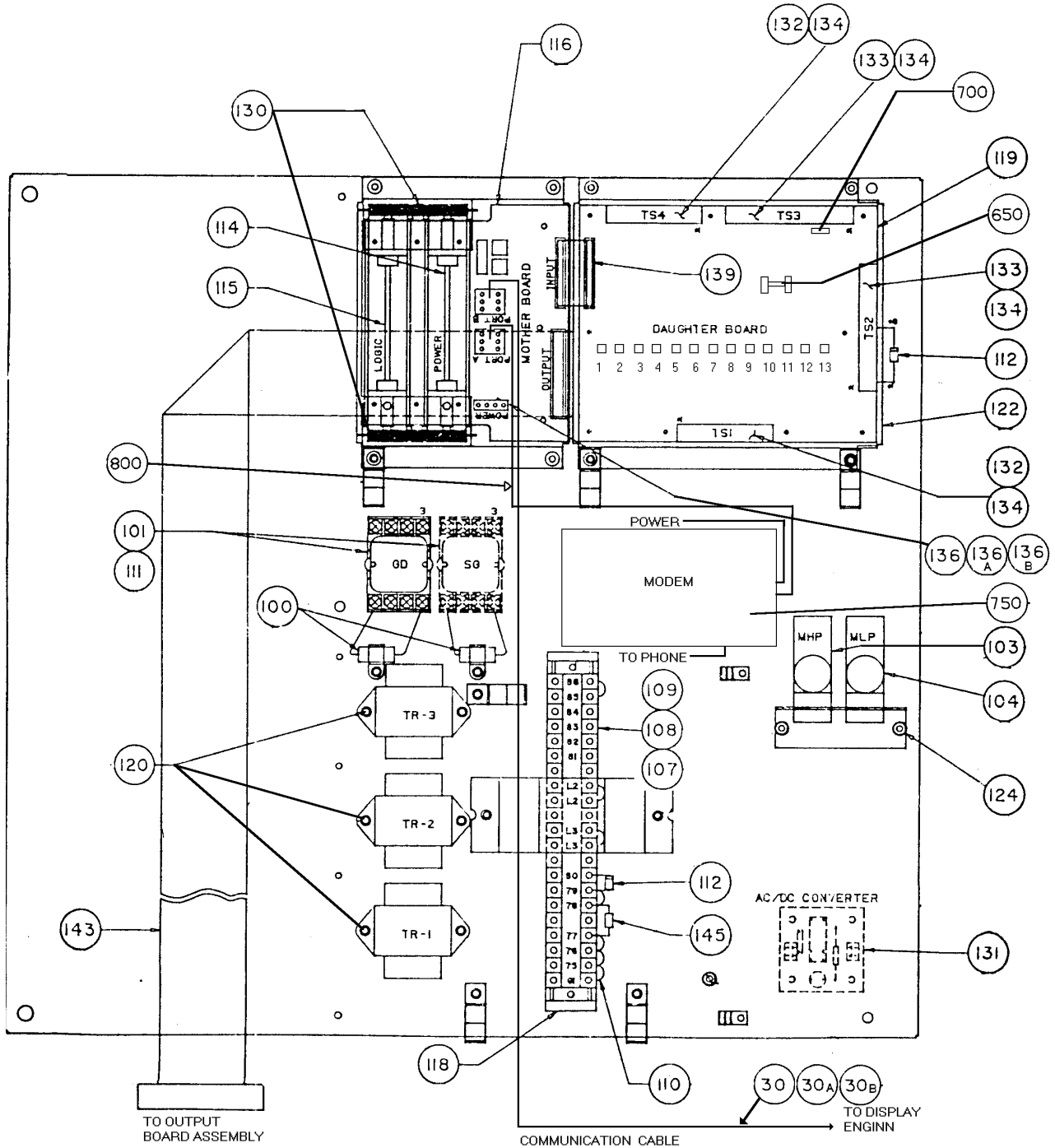
## Misc. Diagrams & Part Numbers



Ref#	Part No.	Qty.	Description
2	735044205	1	Coupling (.25 X .12)
8	070695202	1	Bracket, Sensor
9	070691601	1	Cover, Sensor
31	070183601	1	Oil Gauge Pressure Transducer (OGT)
38	735046240	1.8	Gasket (feet)
39	735044201	2	Union, Brass (.25)
45	735043581	1	Washer, Rubber

# Control Box- Model 180 (1987-94)

## Mother / Daughter Board Area Diagrams



### DAUGHTER BOARD LED LIGHT DESCRIPTION:

- |                                  |                                 |
|----------------------------------|---------------------------------|
| 1..... Surgeguard                | 7..... Starter Fault            |
| 2..... Motor Temperature         | 8..... Condenser Flow and Pump  |
| 3..... Oil Differential Pressure | 9..... Evaporator Flow and Pump |
| 4..... High Discharge Pressure   | 10..... Starter Transition      |
| 5..... Evaporator Low Pressure   | 11..... Remote Start/Stop       |
| 6..... Panel Start/Stop          | 12..... Vane Close Switch       |



## Control Box- Model 180 (1987-94)

### Mother / Daughter Board Area Diagrams, Continued

Ref#	Part No.	Qty	Description
30	070796101	1	Communication Cable w/ Nylon Socket Hsg. and Socket Contacts
30A	049264601	2	Nylon Socket Housing Only, Communication Cable
30B	049264702	6	Socket Contacts Only, Communication Cable
100	072900053	2	Capacitor, Surgeguard and Guardistor
101	735003105	2	Socket, Relay
103	735001626	1	Mechanical High Pressure Switch (MHP)
104	735001628	1	Mechanical Low Pressure Switch (MLP)
107	735073104	2	Clamp, Terminal Block
108	735073101	21	Terminal Block
109	735073102	1	End, Terminal Block
110	735073105	7	Jumper, Terminal Block
111	735020813	2	Relays, Surgeguard and Guardistor (SG, GD)
112	735003404	2	Diode, 3 Amp
114	049263401	1	Power Cartridge
115	049263301	1	Logic Cartridge <sup>2</sup>
116	049263501	1	Mother Board
118	070695013	1	Mount, Terminal Block
119	047812301	1	Daughter Board
120	046738108	3	Transformer, 24V w/Center Tap (TR-1, TR-2, TR-3)
122	070591501	1	Mounting Bracket, Daughter Board
124	735001601	1	Bracket, Pressure Switch
130	049263502	2	Clamps, Cartridge
131	049264901	1	Signal Converter Board (AC to DC)
132	049265301	2	Terminal Block, 12 Terminal (TS1, TS4)
133	049265302	2	Terminal Block, 16 Terminal (TS2, TS3)
134	049265303	**	Polarizing Pin, Terminal Block
136	070795902	1	Power Cable w/ Nylon Socket Housing and Socket Contacts
136A	049264502	1	Nylon Socket Housing Only, Power Cable
136B	049264702	2	Socket Contacts Only, Power Cable
139	049265101	1	Ribbon Cable, 34 Conductor
143	049265201	1	Cable, 50 Pin (Ribbon)
145	735003404	1	Metal Oxide Varistor
650	735088507	1	Fuse, Daughter Board (Little Fuse #22901.5)
700	049754601	1	Jumper, Daughter Board (Watchdog)
750	049123201	1	Modem (Optional)
800	049123001	1	Cord Set, Modem
N/S	070722101	1	Pouch, Modem
N/S	071502008	1	Modem Kit (Modem, Cord Set and Pouch)
N/S	049545003	1	Pneumatic Pressure Transducer (Optional)
N/S	073012002	**	Thermal Sensor w/20 ft. Cable and Thermistor
N/S	735027320	**	Plastic Conduit, Thermal Sensor Cable
N/S	735048014	1	Fitting, Conduit Termination
N/S	072867501		Sensor Well for Water Nozzles

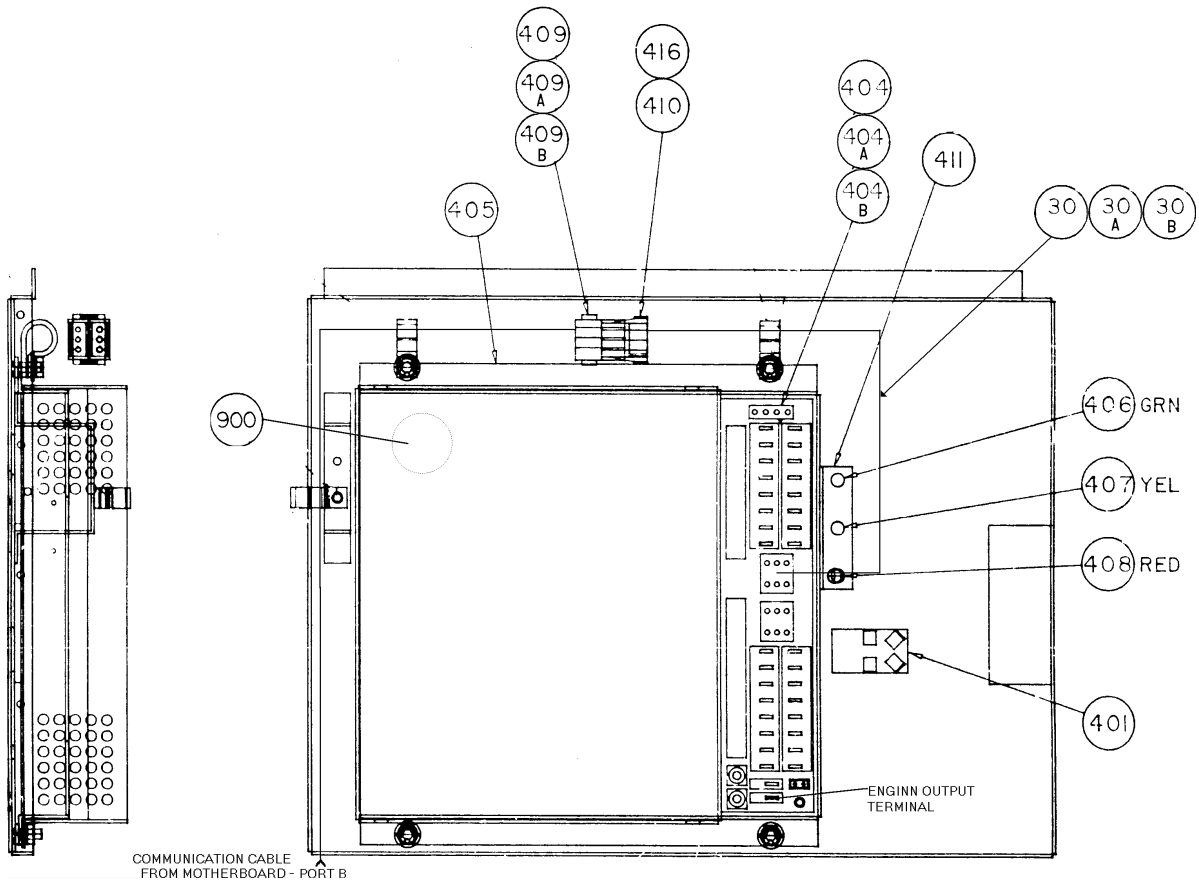
<sup>2</sup> Must supply Software Version Number Code when ordering.

\*\* Quantity as required.

N/S = Not Shown

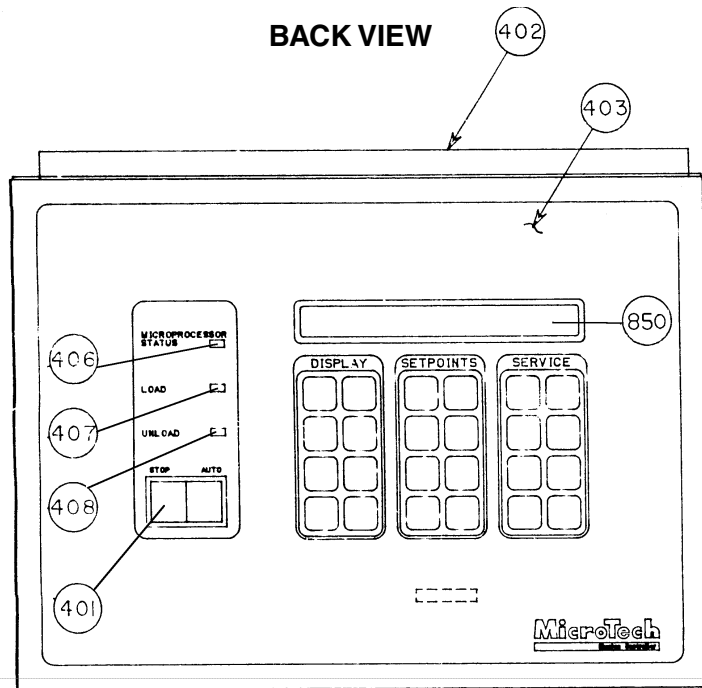
# Control Box- Model 180 (1987-94)

## Display Enginn Diagrams



**SIDE VIEW**

**BACK VIEW**



**FRONT VIEW**

## Control Box- Model 180 (1987-94)

### Display Enginn Components

Ref #	Part No.	Qty.	Description
30	070796101	1	Comm. Cable w/ Nylon Socket Hsg. and Socket Contacts
30A	049264501	2	Nylon Socket Housing Only, Communication Cable
30B	049264702	6	Socket Contacts Only, Communication Cable
401	735004520	1	Toggle Switch (SW1)
402	070795302	1	Door Assembly
403	049262101	1	Control Membrane
404	070795901	1	Power Cable w/ Nylon Socket Hsg. and Socket Contacts
404A	049264502	1	Nylon Socket Housing Only, Power Cable
404B	049264702	3	Socket Contacts Only, Power Cable
405	049263601	1	Display Enginn with 20 Character Display <sup>2</sup>
406	070301301	1	LED Lamp, Green (Micro Status)
407	070301302	1	LED Lamp, Yellow (Load)
408	070301303	1	LED Lamp, Red (Unload)
409	070796105	1	Lamp Power Cable w/ Nylon Socket Hsg and Contacts
409A	049264501	1	Nylon Socket Housing (Plug) Only, Lamp Power Cable
409B	049264702	5	Socket Contacts Only, Lamp Power Cable
410	049264503	1	Nylon Pin Housing
411	070709701	1	Bracket, Light
416	049123802	5	Pin Contacts
850	049754401	1	20 Character Display Only
900	049754501	1	Clock Battery, Lithium

<sup>2</sup> Must supply Software Version Number Code when ordering.

# **Control Box- Series 200**

## **1995- Present**

### **Complete Panels**

Listed below are the part numbers for a complete panel (as described), for use in retrofitting Electromechanical or earlier version MicroTech Panels. Each includes a fully assembled Series 200 control panel, all temperature sensors, all pressure transducers, and all transducer cables.

#### **ENGLISH**

- 074146101 - Includes software and Signal Converter.
- 074146105 - Includes software, Signal Converter and Modem option.
- 074146117 - Includes software, Signal Converter and AOX option.
- 074146121 - Includes software, Signal Converter, Modem and AOX option.

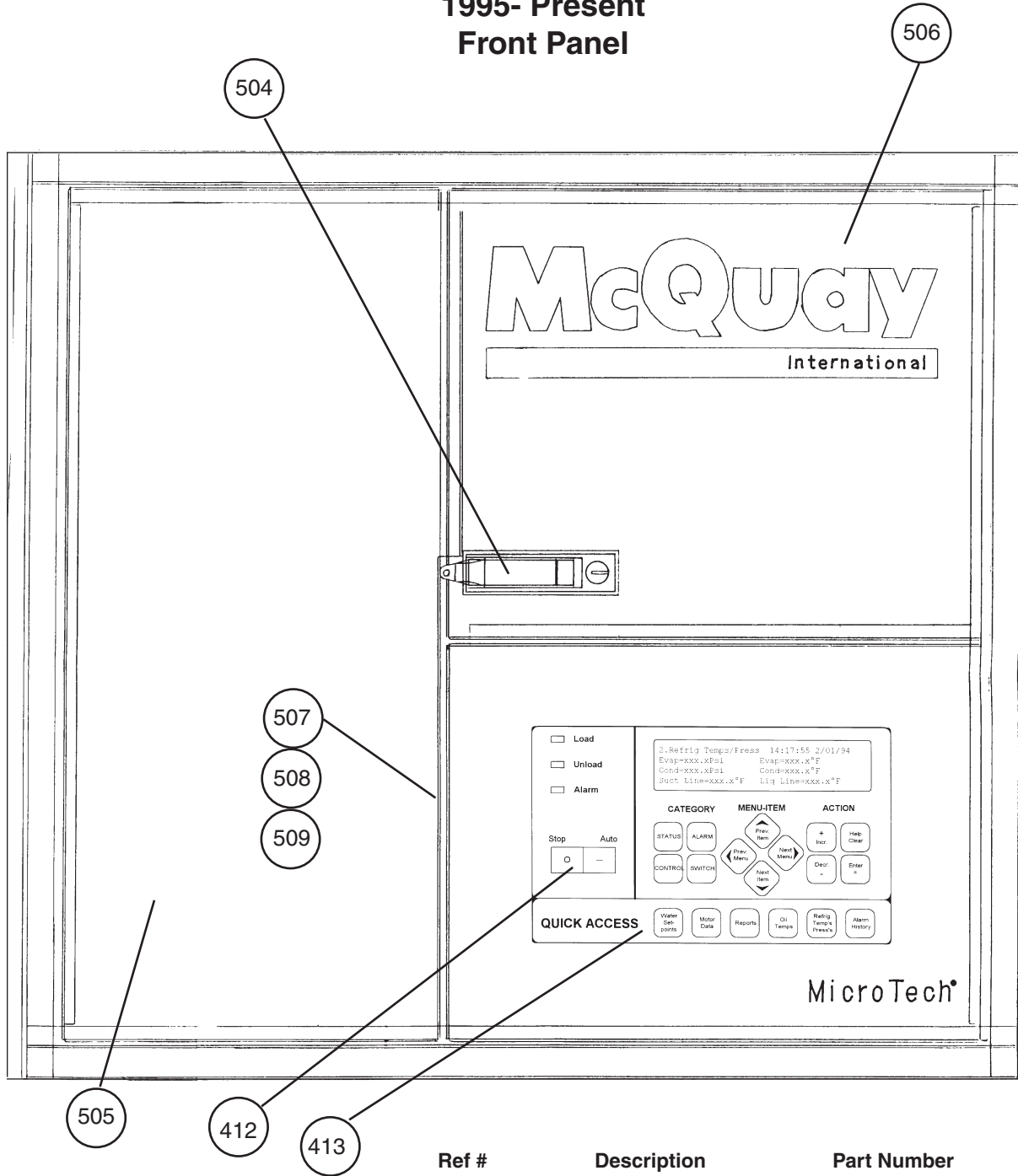
#### **METRIC**

- 074146201 - Includes software and Signal Converter.
- 074146205 - Includes software, Signal Converter and Modem option.
- 074146217 - Includes software, Signal Converter and AOX option.
- 074146221 - Includes software, Signal Converter, Modem and AOX option.

# Control Box- Series 200

## 1995- Present

### Front Panel



Ref #	Description	Part Number	Qty.
412	Toggle Switch	735004521	1
413	Keyboard: English	057900901	1
	Keyboard: Japanese	057900911	1
504	Lock/Latch	350065401 *	1
505	Power Door	073117201	1
506	Control Door	350108101 *	1
507	Magnetic Latch Bracket	073212701	1
508	Magnetic Fastener	034905200	1
509	Magnetic Catch Bracket	034905000	1
N/S	Key	070184202	1

N/S = Not Shown

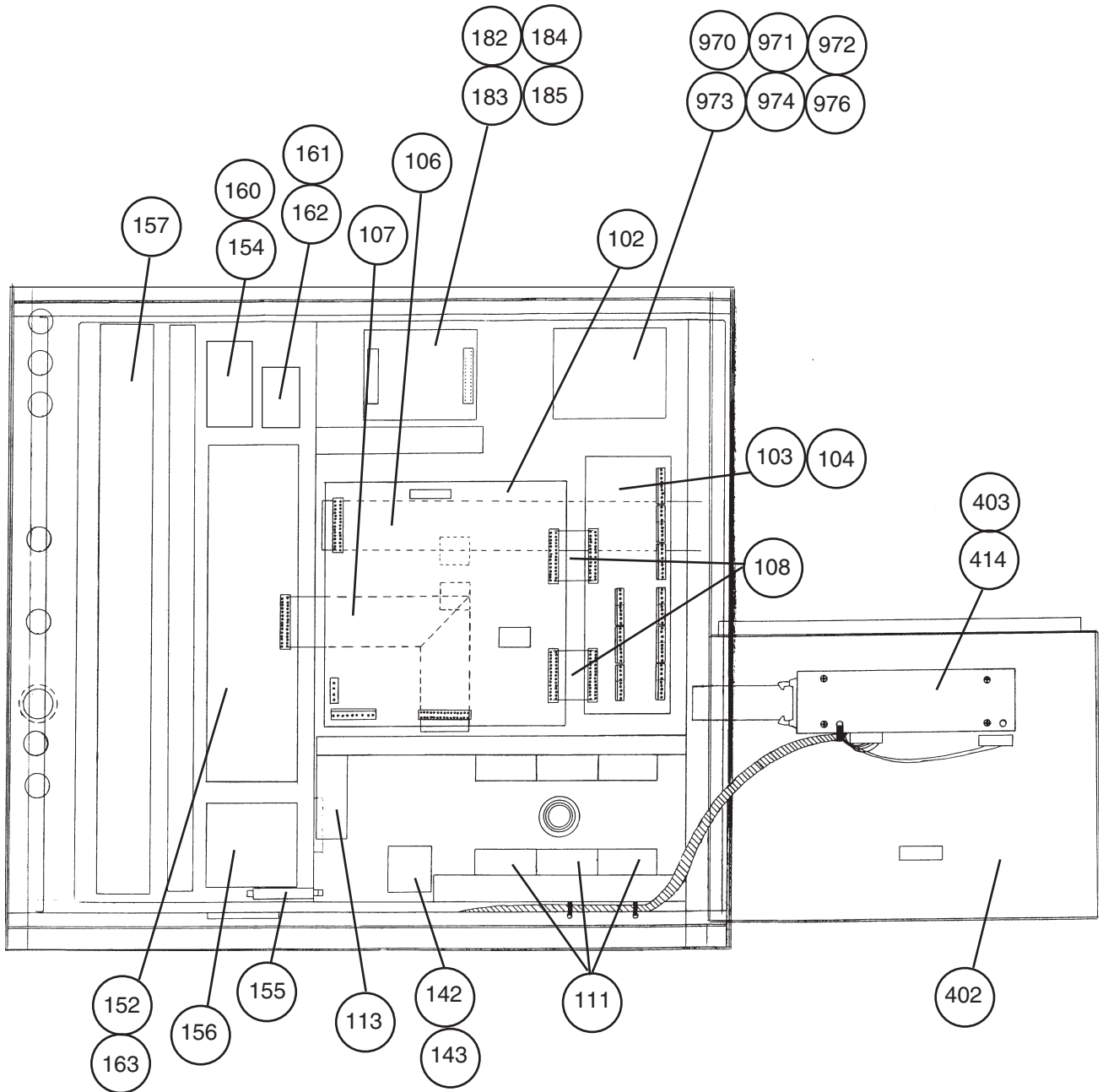
\* The door Latch has been changed. The new Latch is 1/2" shorter horizontally than the original.

On units built before 3/99, if you need to replace either the Latch or the Control Door, you will need to replace both.

# Control Box- Series 200

## 1995- Present

### Control Panel Components



# Control Box- Series 200

## 1995- Present

### Control Panel Components, Continued

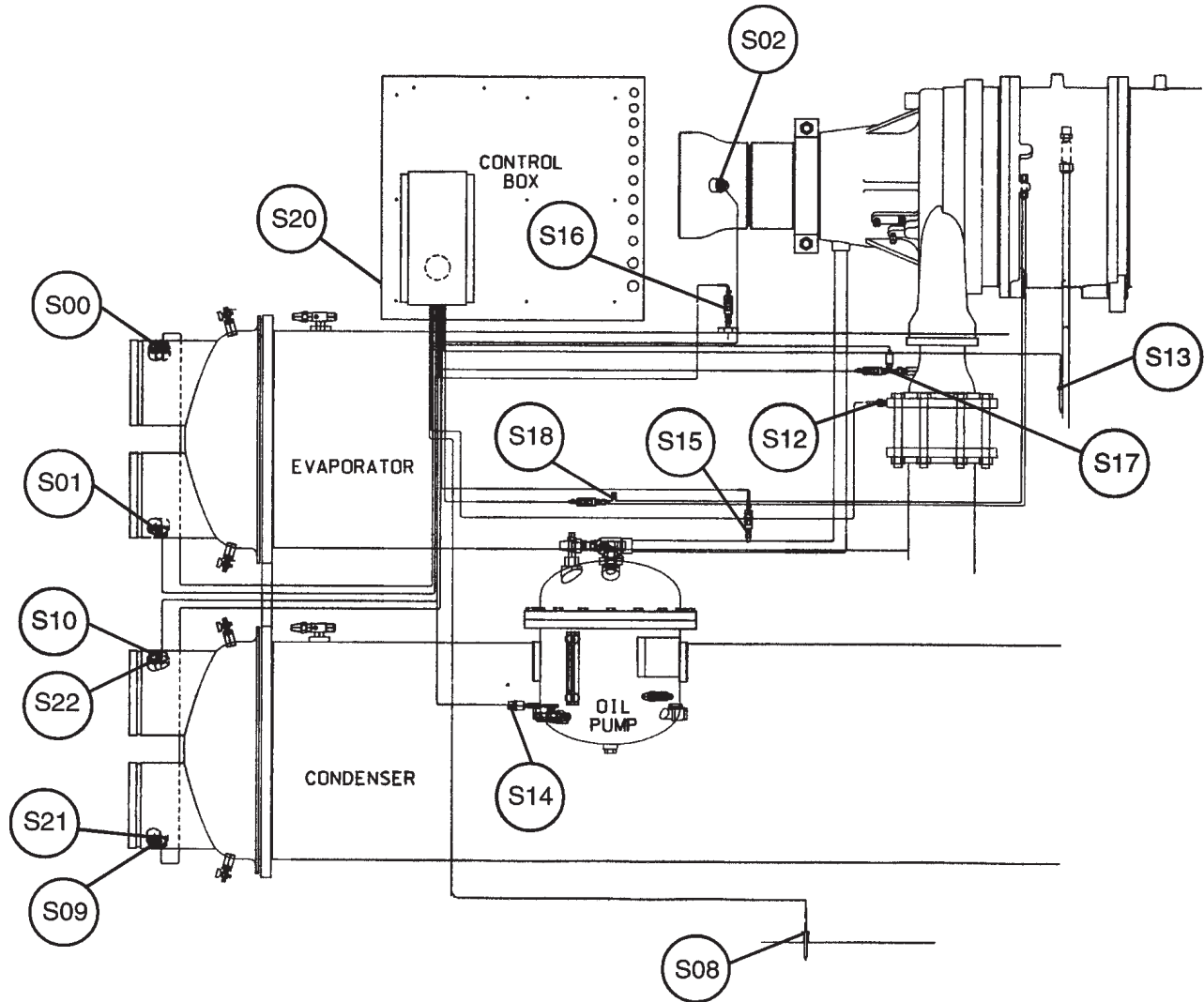
Ref#	Description	Part Number	Qty.
102	MicroTech Controller 280.....	065487350	1
N/S	Controller power fuses, 2A .....	065822001	2
N/S	Contr. Communication fuses, .25A .....	065821901	4
103	ADI Board.....	330325401	1
104	Circuit Board Mount.....	055727206	1
106	Cable Ribbon, 34 Conductor, 39" .....	049265103	1
107	Cable Ribbon, 50 Conductor, 18" .....	049265208	1
108	Cable Ribbon, 50 Conductor, 3" .....	072941801	2
111	Terminal Block, Euro.....	072993901	6
113 (T3)	Transformer, 24-18V .....	046738114	1
152	Output Board .....	072986401	1
N/S	Output board line fuses, 5A .....	735088508	24
N/S	Output board logic supply fuses, 1A.....	735088511	1
154	Guardistor Control Board.....	067113001	1
N/S	Guardistor fuses, .125A.....	073234501	2
155	Circuit Breaker, 3 Amp.....	735073301	1
156 (T2)	Transformer, 120-24V .....	060630801	1
157	Terminal Block .....	073118801	1
160	Circuit Board Mount.....	055727207	1
161	Relay Socket.....	735003105	1
162	Relay, 2PDT 24V .....	735020820	1
163	Relay, Output Board .....	073202501	19
402	Keypad Display Door .....	073104402	1
403	Circuit Board Standoff .....	071588101	4
414	KDI Control.....	073378501	1
N/S	Terminal Block .....	065499909	11
N/S	Terminal Block Cover.....	065500009	11
N/S	Varistor, 30VAC.....	049759701	1
<b>Optional Signal Converter</b>			
142	Signal Converter Board .....	049264901	1
143	Circuit Board Spacer .....	048166702	4
<b>Optional AOX Control Board</b>			
182	Control, AOX Board .....	066794804	1
183	Circuit Board Mount.....	055727203	1
184	Ribbon Cable, 18", 26C .....	065499701	1
185	Screw.....	038990803	2
<b>Optional Modem</b>			
970	Modem, 14.4K Baud, 9-pin.....	072140601	1
971	Cable, Modem Interface .....	073372702	1
972	Gasket, .25 x .7 .....	070199207	1
973	Screw.....	038990701	4
974	Bracket, Modem Mounting.....	073043505	1
976	Bracket, Modem Vert. ....	073014701	1

N/S = Not Shown

# Control Box- Series 200

## 1995- Present

### Sensor Location Diagram





# Control Box- Series 200

## 1995- Present

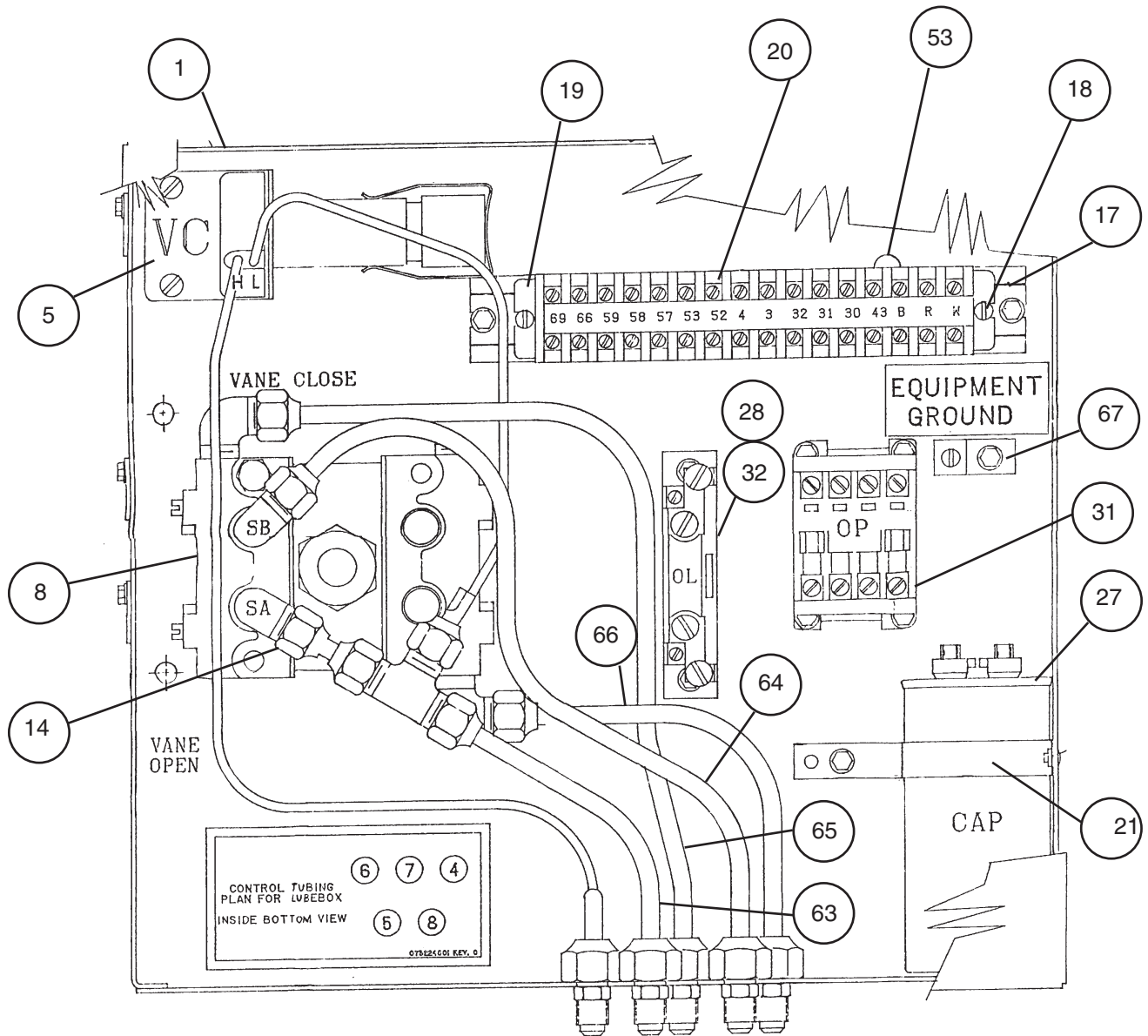
### Sensor Location Diagram, Continued

Ref#	Description	Part No.	Qty.
S00	Evaporator Leaving Water Temperature Sensor .....	073012002	1
S01	Evaporator Entering Water Temperature Sensor.....	073012002	1
S02	Compressor Suction Temperature Sensor .....	073012002	1
S08	Condenser Liquid Line Temperature Sensor.....	073012002	1
S09	Condenser Entering Water Temperature Sensor .....	073012002	1
S10	Condenser Leaving Water Temperature Sensor .....	073012002	1
S12	Compressor Discharge Temperature Sensor .....	073012002	1
S13	Oil Feed Temperature Sensor .....	073012002	1
S14	Oil Sump Temperature Sensor .....	073012002	1
S15	Oil Vent Pressure Transducer, 150# .....	065816801	1
S16	Evaporator Refrigerant Pressure Transducer, 150# .....	065816801	1
S17	Condenser Refrigerant Pressure transducer, 450#.....	065816802	1
S18	Oil Feed Gauge Pressure Transducer, 450# .....	065816802	1
S20	Optional Outdoor Air Temperature Sensor .....	073012002	1
S21	Optional Entering Heat Recovery Temperature Sensor .....	073012002	1
S22	Optional Leaving Heat Recovery Temperature Sensor .....	073012002	1
N/S	Boot, Transducer Protection .....	071583301	4
N/S	Pressure Transducer Cable, 10 ft.....	065821801	3
N/S	Pressure Transducer Cable, 15 ft.....	065821802	1
N/S	High Pressure Switch, 195#.....	072982702	1

N/S = Not Shown

# Lube Box

## Used With MicroTech Series 200 Panels



# Lube Box

## Used With MicroTech Series 200 Panels

### Continued

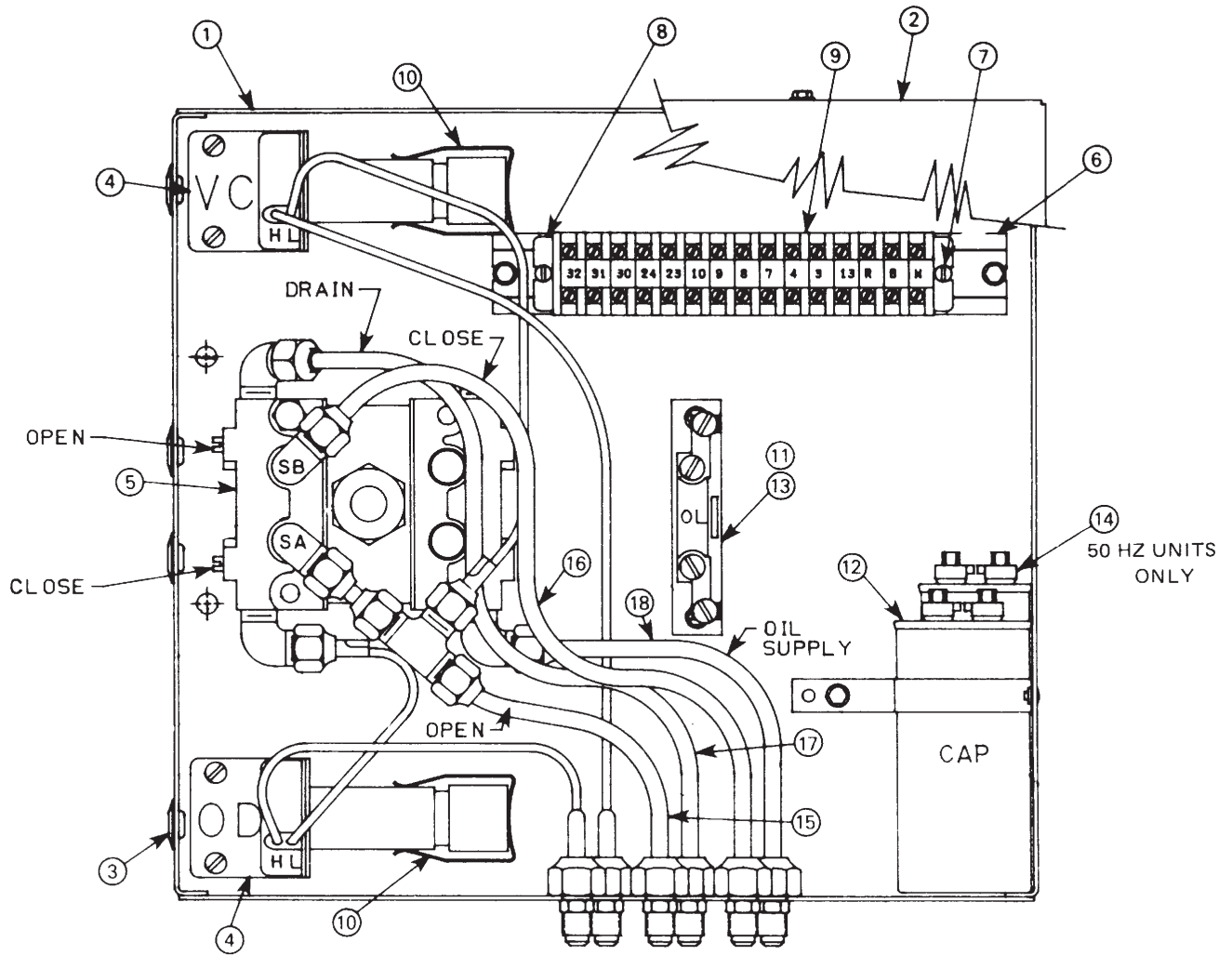
Ref #	Description	Part Number	Qty.
001	Lube Box Weldment.....	074124201	1
005	Pressure Switch.....	070180512	1
008	Solenoid Valve.....	735048449	1
N/S	Solenoid Valve O-Ring Kit.....	735048460	1
014	Tube Coupling.....	047139601	1
017	Channel Mount.....	775115202	1
018	Terminal Block Clamp.....	735073104	2
019	Terminal Block End.....	735073102	1
020	Terminal Block Section.....	735073101	16
021	Capacitor Strap.....	075107001	1
027	Capacitor, 35MFD, 250V.....	735067401	1
028	Overload.....	735021501	1
031	Contactora.....	072997402	1
032	Heater.....	735021577	1
053	Terminal Block Jumper.....	735073105	1
063	Lube Box Line Assembly.....	744445001	1
064	Lube Box Line Assembly.....	744445002	1
065	Lube Box Line Assembly.....	744445003	1
066	Lube Box Line Assembly.....	744445004	1
067	Power Terminal.....	735042914	1
N/S	Lube Box Cover.....	744417501	1

N/S = Not Shown

# Lube Box

## 1982-1994

### Diagrams



# Lube Box

## 1982-1994

### Components

Ref #	Qty.	Description -----	Part Number
1		Complete Lube Box -----	070797802
2	1	Cover- Lube Box -----	744417501
3	4	Button Plug -----	735007603
4	2	Pressure Switch -----	070180512
5	1	SA/SB 4- Way Solenoid Valve -----	735048449
6	1	Mounting Channel -----	775115202
7	2	Channel Clamp -----	735073104
8	1	End Terminal -----	735073102
9	15	Section/Terminal -----	735073101
10	2	Cover Clip -----	735006116
11	1	Overload- Oil Pump Motor -----	735021501
12	1	Capacitor- Oil Pump Motor -----	735067401
13	1	Overload Heater -----	735021577
14	1	50 Hz. Capacitor -----	735067402
15	1	Lube Line -----	744445001
16	1	Lube Line -----	744445002
17	1	Lube Line -----	744445003
18	1	Lube Line -----	744445004
N/S		Service Kit for 9/90 update -----	070851212*
N/S		Service Kit for replacement of old lube box ---	070851202*

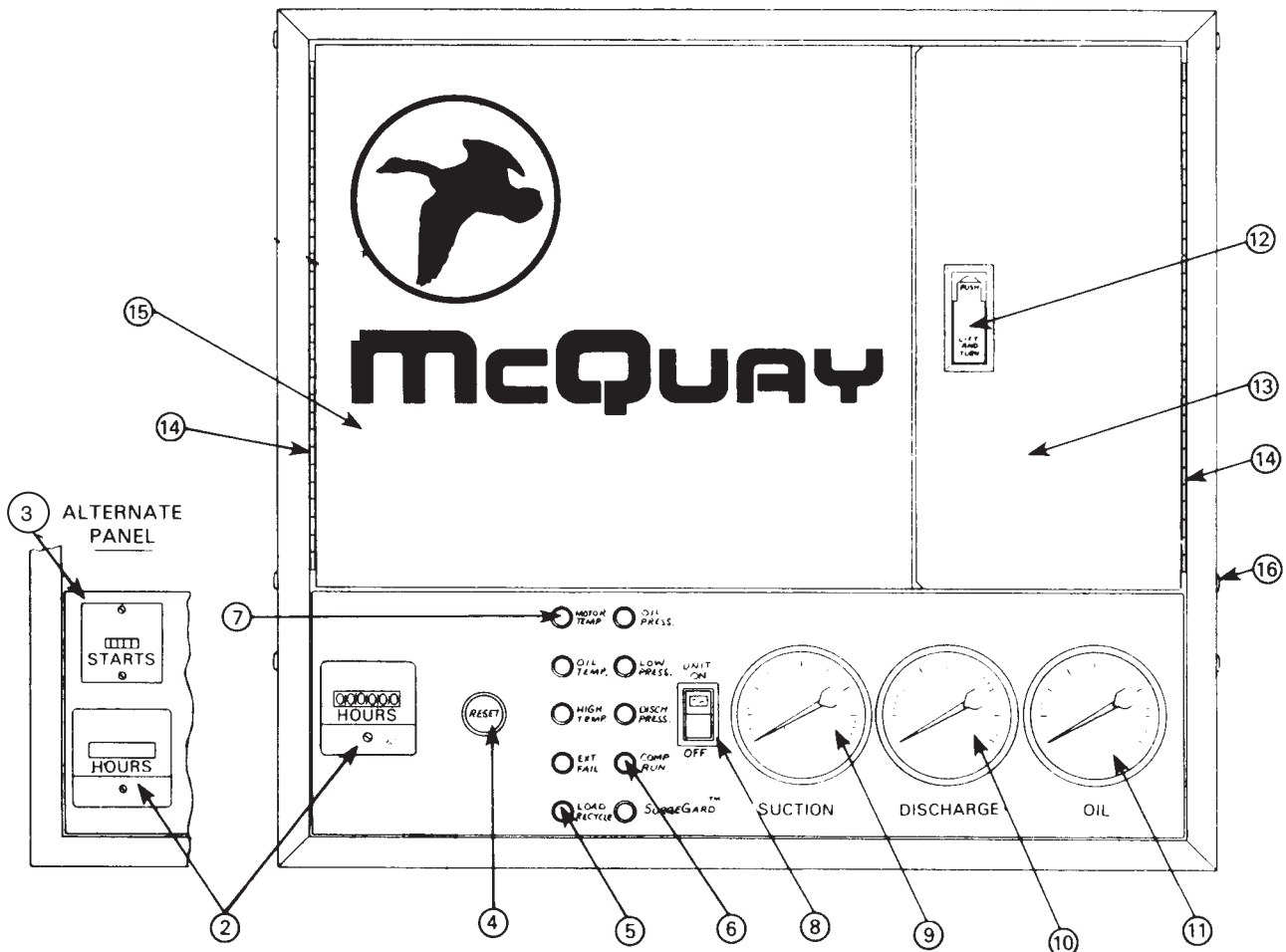
\*Note: The picture illustrates the original lube box designed in 1982. In September of 1990 the box was modified slightly and a seventh control tubing connection was added to the box. Service Bulletin 18-9039-B illustrates this change.

N/S = Not Shown

# Control Box

## Electromechanical Controls 1982-1987

### Front Panel

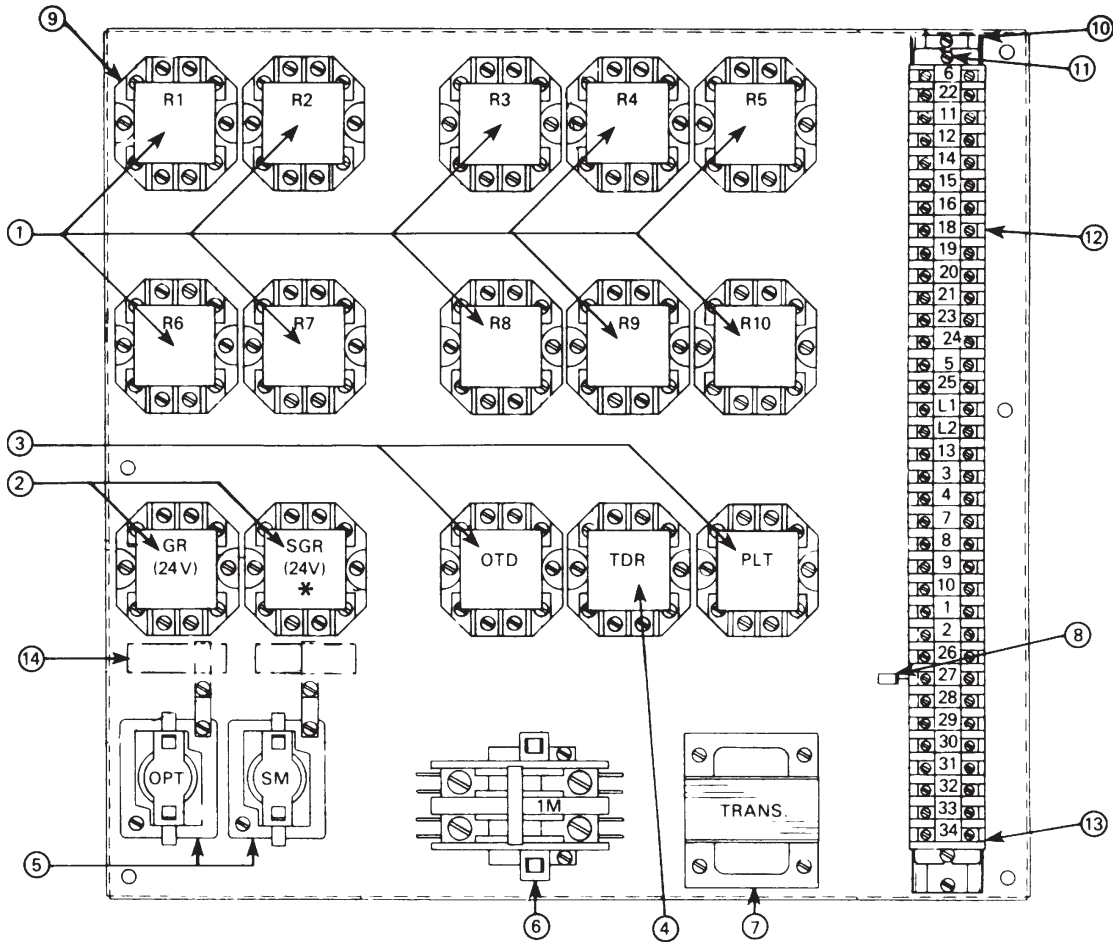


Ref #	Qty.	Description -----	Part Number
2	1	Hour Meter -----	735073202
3	1	Starts Counter -----	735073204
4	1	Reset Button-----	735073801
5	1	Amber Pilot Light -----	735005129
6	1	White Pilot Light -----	735005130
7	8	Red Pilot Light -----	735005128
8	1	Toggle Switch -----	735004518
9	1	Pressure Gauge- Suction ----	735006320
10	1	Pressure Gauge- Discharge-	735006319
11	1	Pressure Gauge- Oil-----	735006318
12	1	Latch-----	735000162
13	1	Door -----	759906801
14	2	Hinge -----	735073532
15	1	Door -----	759906701
16	8	Button Plug -----	735007603

# Control Box

## Electromechanical Controls 1982-1987

### Relay Panel

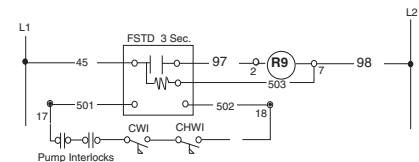


Ref #	Qty.	Description	Part Number
1	10	Relay	735020810
2	2	Relay	735020813
3	2	Time Delay- Non-Adjustable (std.)	735072901
	1	T.D.- Adjustable OTD (optional)	735072907
	1	T.D.- Adjustable PLT (optional)	735074520
4	1	Time Delay (Anti-Recycle)	735072902
5	2	Time Delay (OPT and SM standard)	735005933
	1	Time Delay FSTD (optional):	735005944
	1	FSTD Retrofit Kit	070809501*
6	1	Relay	735020613
7	1	Control Transformer	735003531
8	1	Diode	735003404
9	14	Relay Socket	735003105
10	2	Channel Mount	775115201
11	2	Channel Clamp	775115202
12	35	Terminal Section	735073101
13	2	Terminal End	735073102
14	1	Capacitor Assembly	744408401

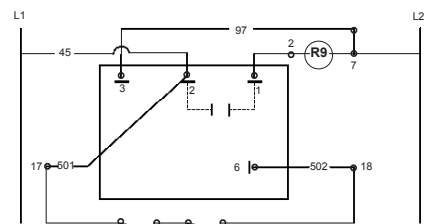
\* To retrofit a panel to include a Flow Switch Time Delay. See Service Bulletin 18-8527-1 for retrofit information.

In 1987 the original Flow Switch Time Delay (FSTD)- 735005944- was replaced by a new TD- 735005945. There is a slight wiring modification required when the new style FSTD is installed. The wiring is as follows:

Old Way 735005944



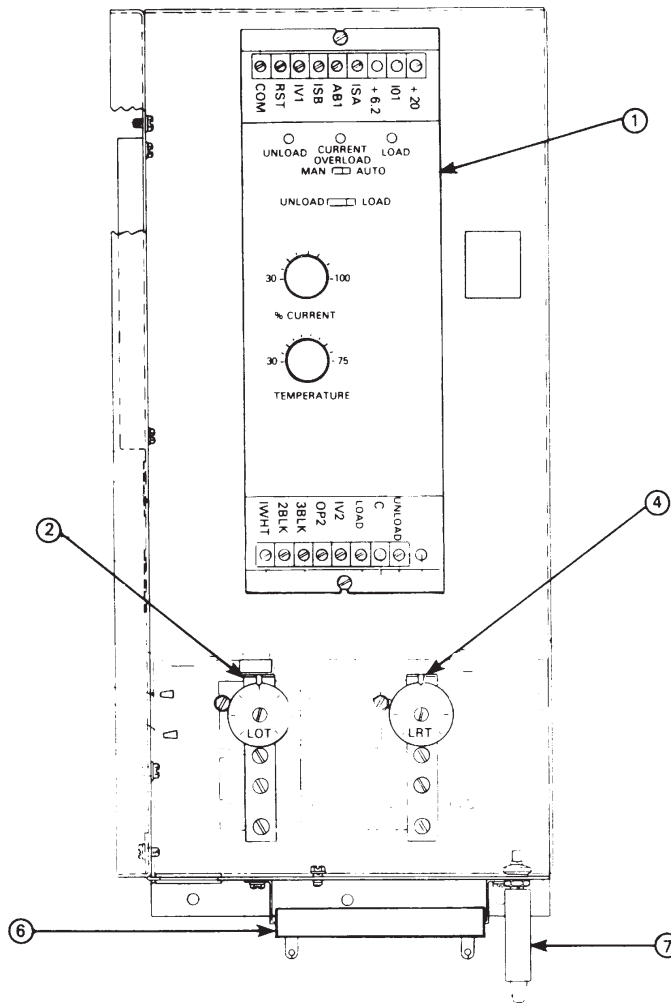
New Way 735005945



# Control Box

## Electromechanical Controls 1982-1987

### Temperature Control Section



Ref #	Qty.	Description -----	Part Number
1	1	Control Module CP-8142 -----	735076404
		Control Module Sensor -----	047441505
		Control Module Sensor Well -----	047441506
2	1	Thermostat LOT -----	735002147
4	1	Thermostat LRT (non adjustable- before 1986) -----	735006629
	1	Thermostat LRT (adjustable- after 1986) -----	735006636
6	1	Resistor 2 OHM -----	735003216
7	1	Circuit Breaker -----	735073301
N/S	1	Thermostat Cover -----	744417301

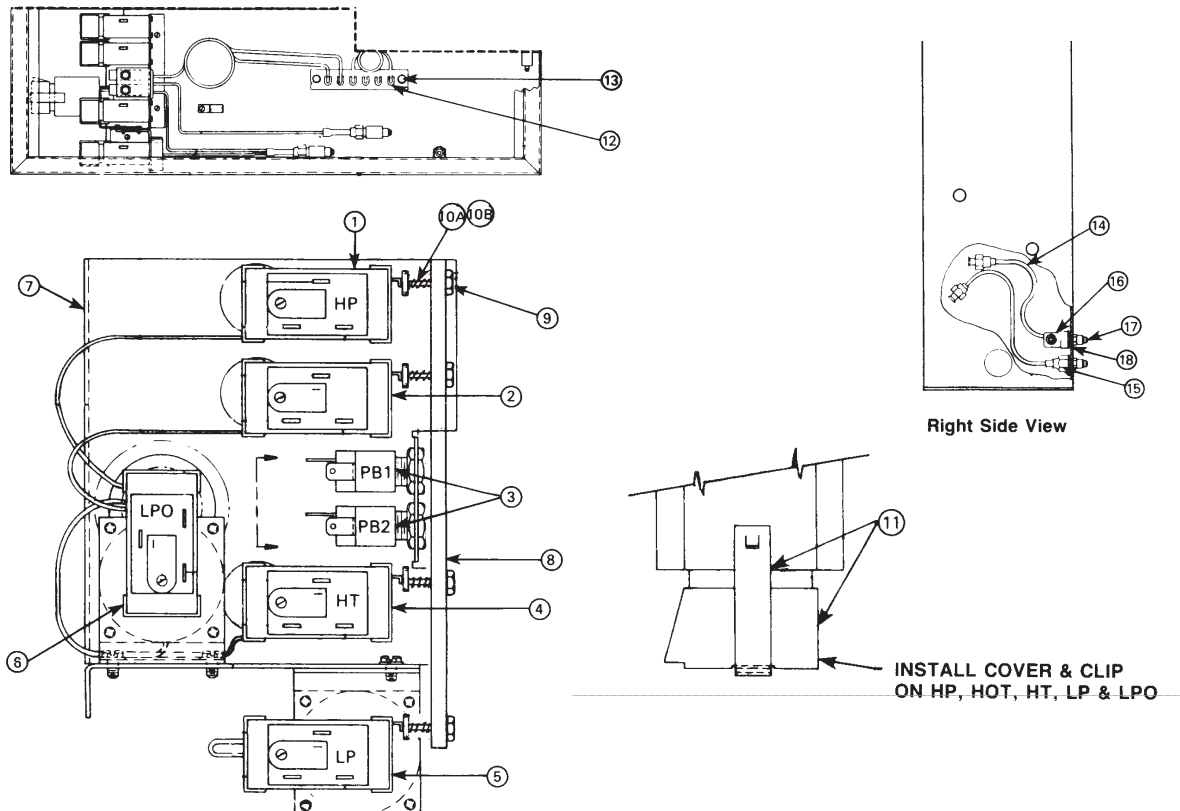
N/S = Not Shown



# Control Box

## Electromechanical Controls 1982-1987

### Lower Switch Section



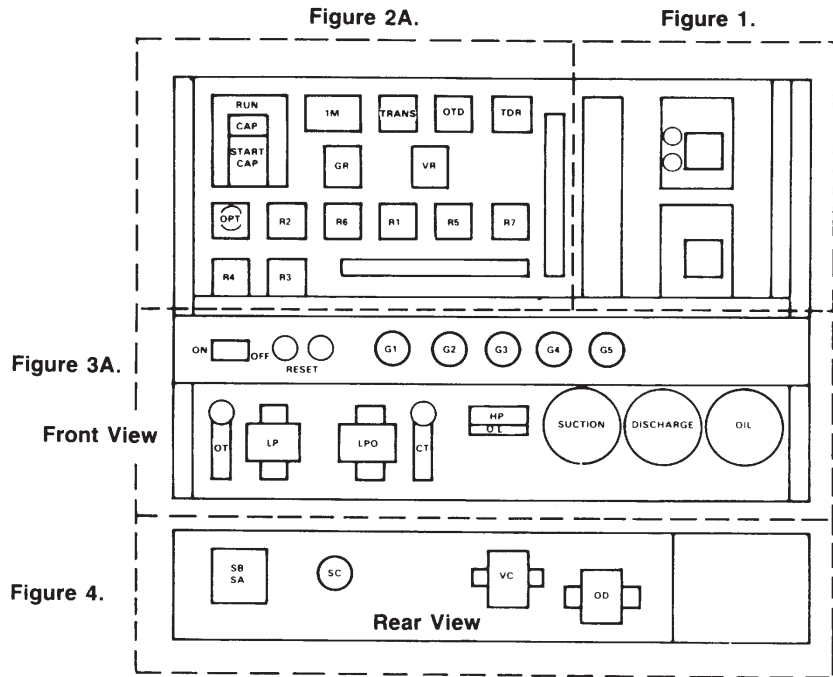
Ref #	Qty.	Description -----	Part Number
1	1	High Pressure Switch -----	735001626
2	1	Thermostat HOT -----	735006619
3	2	Pushbutton Switch -----	735001108
4	1	Thermostat HT -----	735006620
5	1	Low Pressure Switch LP -----	735006120
6	1	Low Oil Pressure Switch -----	735006109
7	1	Switch Bracket -----	759906601
8	1	Reset Plate -----	775188202*
9	4	Bolt -----	735037140*
10a	4	Nut -----	735029739*
10b	4	Spring -----	735036921*
	1	Reset Retrofit Kit (used to retrofit panels built prior to 11/82)-----	070081673*
11	8	Cover -----	735006116
12	6	Nylon Grommet -----	735038139
13	1	Support -----	775168301
14	1	Tube Assembly -----	744444301
15	1	Tube Assembly -----	744444302
16	1	T -----	735034418
17	3	Union -----	735044201
18	3	Washer -----	735043444

\* Used after serial number 5MM (11/82). If panel was built prior to 11/82, entire retrofit kit must be ordered.

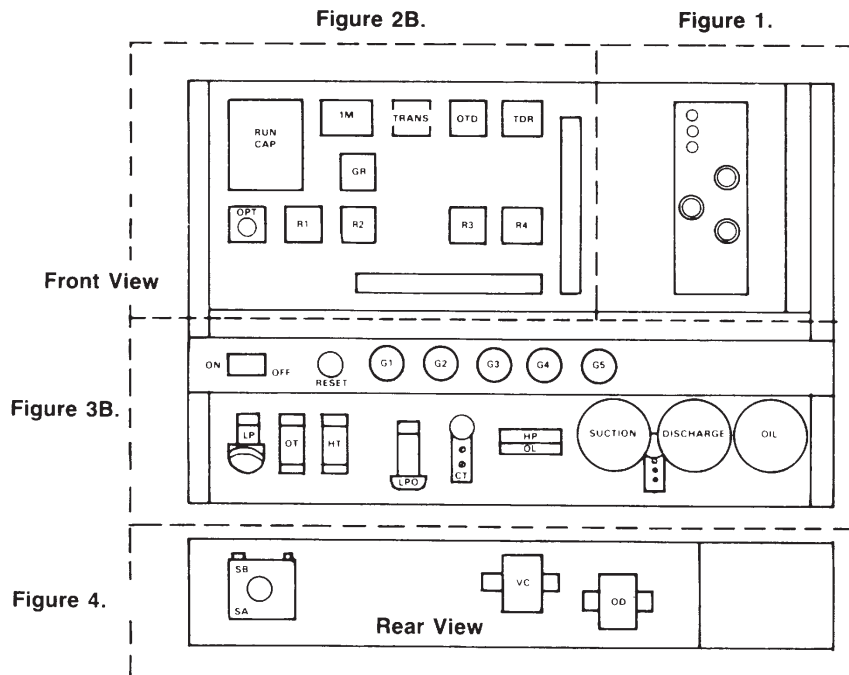
# Control Box

## Electromechanical Controls 1966 - 1981

### CONTROL PANEL PRIOR TO #JM



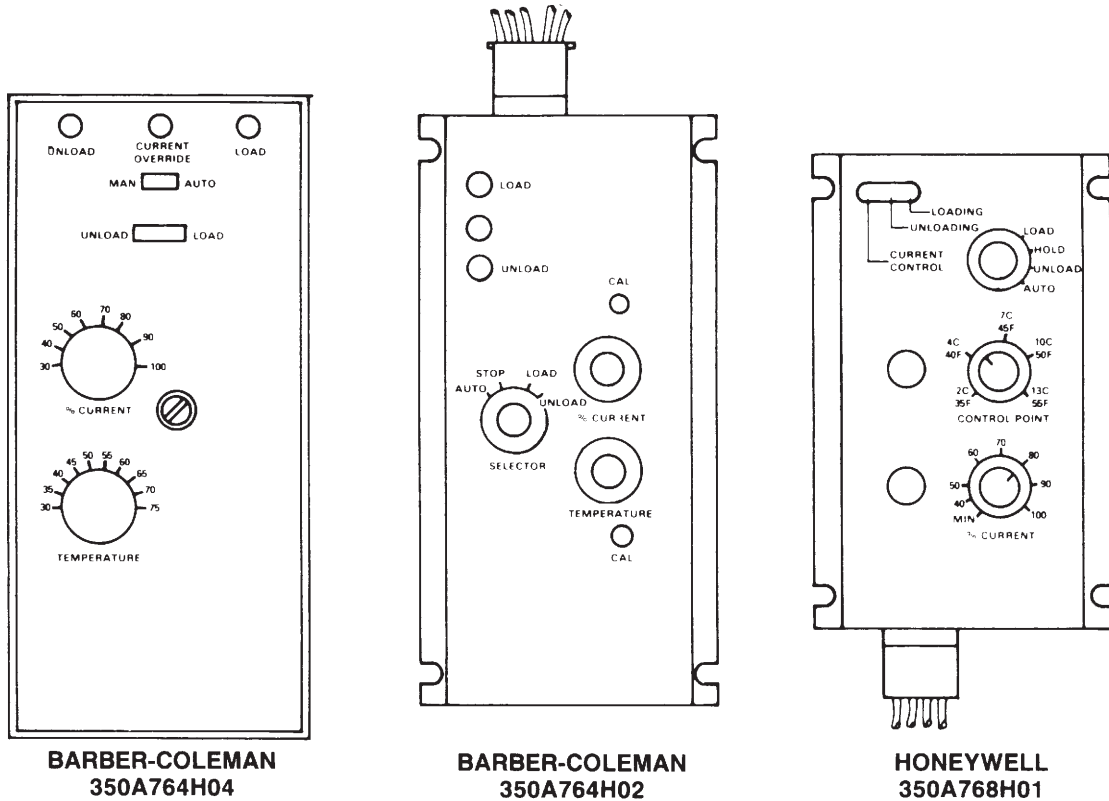
### CONTROL PANEL PRIOR TO NEW STYLE PANEL January 1982



# Control Box

## Electromechanical Controls 1966 - 1981

### Main Controller



Ref #	Qty.	Description -----	Part Number
	1	Barber Coleman Control Module CP-8142 -----	735076404
		Control Module Sensor -----	047441505
		Control Module Sensor Well-----	047441506
	1	Honeywell Control Module -----	735076803
		Control Module Sensor -----	735016007
	1	Westinghouse Control Module-----	No Longer Available

If a Westinghouse module is installed and replacement is required, it must be converted to the Barber Coleman control (735076404). The following parts are required for this conversion:

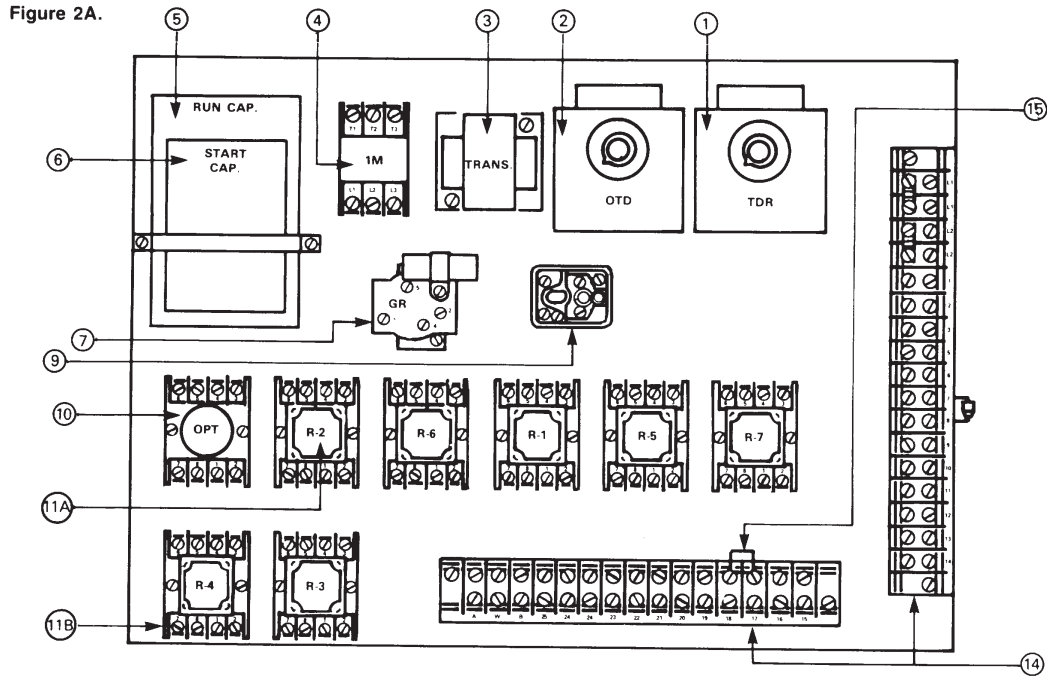
- Module: 735076404
- Sensor: 047441505
- Well: 047441506
- Front Cover Plate: 759617101
- Adapter: 047139601
- Instructions: PE-Z-104

# Control Box

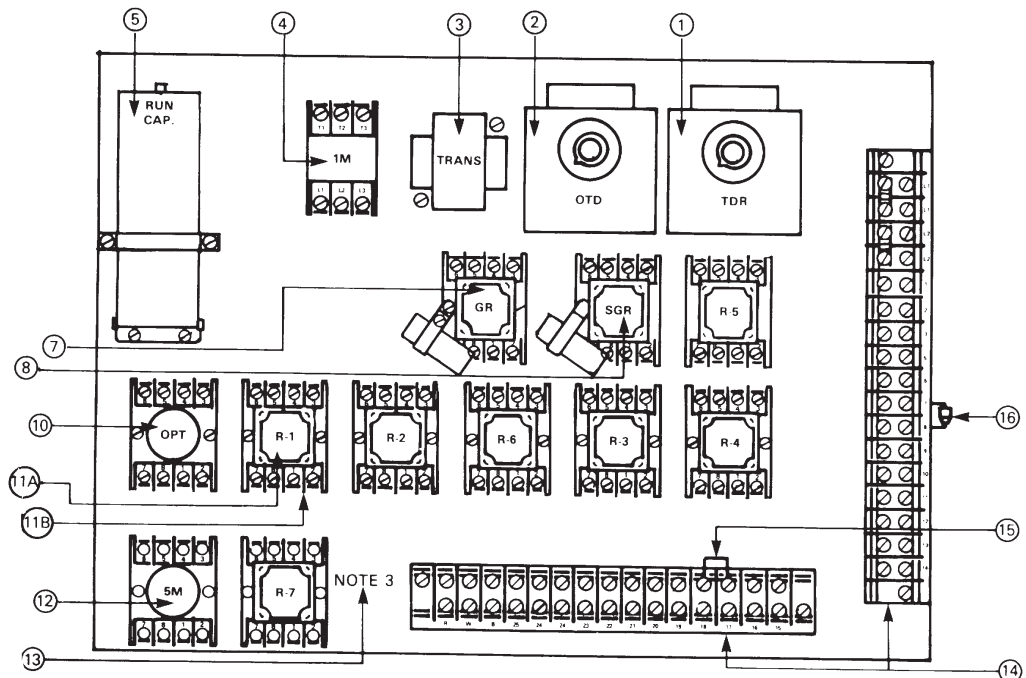
## Electromechanical Controls 1966 - 1981

### Main Panel

Before Serial Number JM \*\*\*\*



After Serial Number JM \*\*\*\*



# Control Box

## Electromechanical Controls 1966 - 1981

### Main Panel, Continued

Ref #	Qty.	Description -----	Part Number
1	1	Time Delay Relay- Compressor TDR-----	735005907*
2	1	Time Delay Relay- Oil Pump OTD -----	735005906*
*Note: Neither of these parts are available. If one fails they must both be replaced by kit 070024202. The kit contains the new solid state timers an R8 relay and the relay bases. If the retrofit has already been performed and replacement is required the following are the part numbers:			
1	1	Time Delay Relay- Compressor TDR-----	070024602
2	1	Time Delay Relay- Oil Pump OTD-----	735072902
3	1	Transformer-----	735003531
4	1	Oil Pump Contactor- Prior to sn: JM**** -----	735022105
	1	Oil Pump Contactor- After to sn: JM**** -----	735085007
5	1	Run Capacitor- 20MFD/440V -----	735083605
	1	Run Capacitor- 25MFD/370V -----	735083607
	1	Run Capacitor- 35MFD/370V -----	037516419
6	1	Start Capacitor- Prior to sn: JM**** only-----	735002706
7	1	Guardistor Relay GR-----	735020813**
	1	Surgeguard Relay SGR -----	735020813**
8	1	Guardistor Capacitor -----	735002805**
	1	Surgeguard Capacitor-----	735002805**
**Note: The Relay & Capacitor may be ordered as a kit. PN- 744408402			
9	1	Voltage Relay- Prior to sn: JM**** only -----	735020114
10	1	Oil Pump Time Delay OPT Non-UL Panels -----	735020708
	1	Oil Pump Time Delay OPT UL Panels-----	735005933
11A	***	Relay R1- R8 -----	735020810
11B	***	Relay Base-----	735003101
12	1	System Monitor Timer SM-----	735020702
13	1	Resistor 50W 20000-----	735003216
14	***	Terminal Block 15 Connections-----	735040815
	***	Terminal Block 17 Connections-----	735040817
15	1	Resistor 18000 2W-----	735003302
16	1	Diode -----	735003404

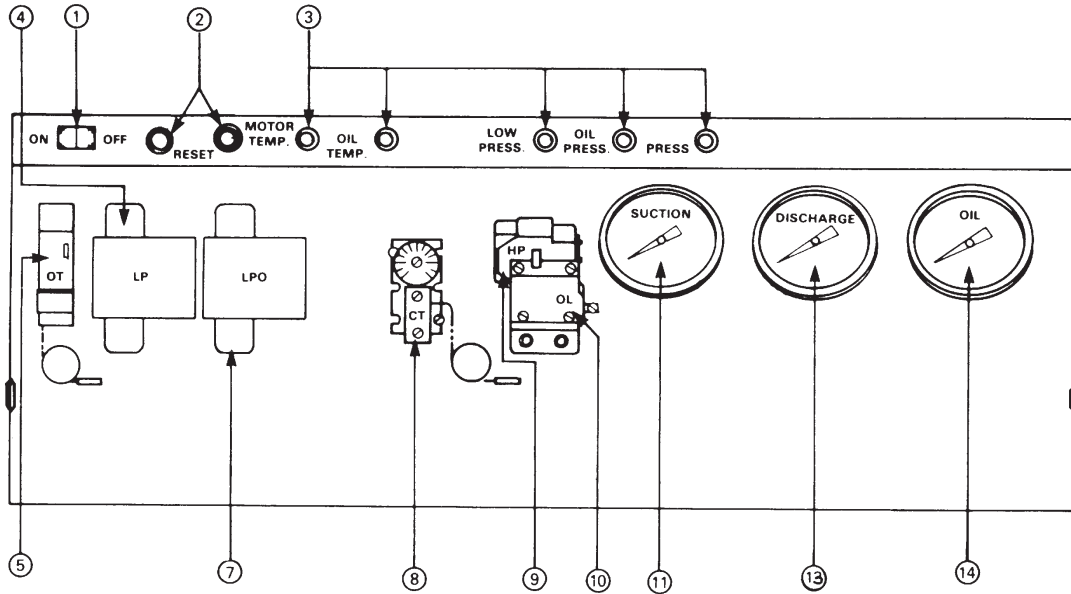
\*\*\*Note: Quantity Varies

# Control Box

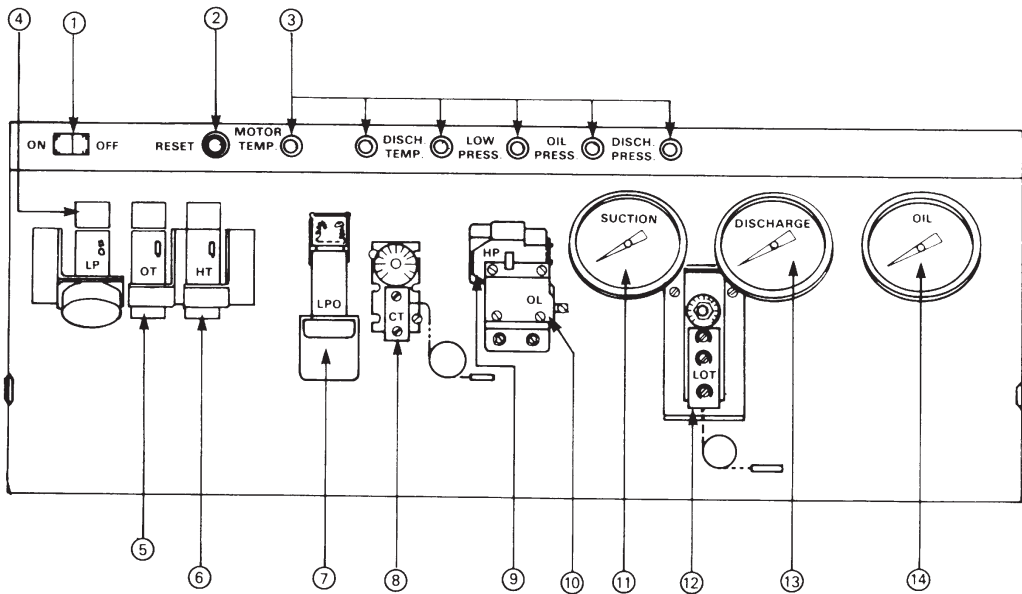
## Electromechanical Controls 1966 - 1981

### Switches and Gauges

Before Serial Number JM \*\*\*\*



After Serial Number JM \*\*\*\*



# Control Box

## Electromechanical Controls 1966 - 1981

### Switches and Gauges, Continued

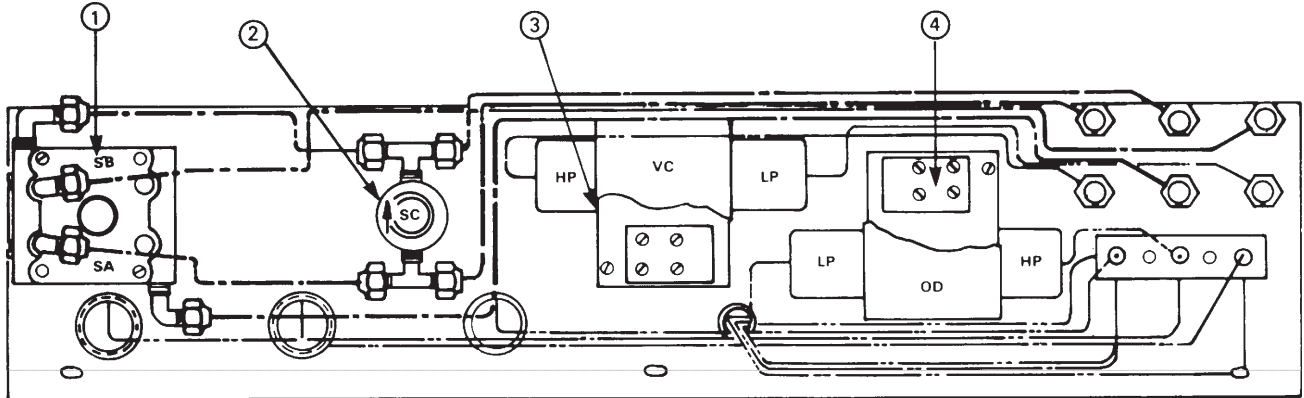
Ref #	Qty.	Description -----	Part Number
N/S	1	Switch- ON/OFF/RESET -----	735004515
1	1	Switch- ON/OFF -----	735004507
2	1*	Reset Switch -----	735001108
*Note: Some panels require 2 of these reset switches			
3	**	Panel Lights-----	735005101
**Note: Check panel for quantity required			
4	1	Low Pressure Switch LP-----	070180520
5	1	Oil Temp. Thermostat OT Prior to SN JM**** -----	A19ADN-1
	1	Oil Temp. Thermostat OT After SN JM**** -----	735006619
6	1	Discharge Temperature Switch HT-----	735006620
7	1	Low Pressure Override LPO Before SN JM**** ---	070180520
8	1	Cycling Thermostat CT Prior to SN JM**** -----	070180509
	1	Cycling Thermostat CT After SN JM**** -----	735006636
9	1	High Pressure Switch HP-----	735001626
10	1	Oil Pump Motor Overload -----	735021501***
***Note: Older panels had a Westinghouse overload pn:46A8100G67. If this overload requires replacement the following parts are also required:			
		Heater 735021555	
		Bracket 735946901	
		Shield 744354401	
		Bracket 744119801	
		Insulator 735948101	
11	1	Suction Gauge -----	735006320
12	1	Low Oil Temperature Thermostat LOT -----	735002142
13	1	Discharge Gauge-----	735006319
14	1	Oil Pressure Gauge-----	735006318

N/S = Not Shown

# Control Box

## Electromechanical Controls 1966 - 1981

### Lube Section



Ref #	Qty.	Description -----	Part Number
1	1	4-Way Solenoid Valve SA/SB -----	735048449
2	1	Solenoid Valve SC -----	735048412
3	1	Vane Control Switch VC -----	735006101
4	1	Oil Pressure Differential Switch OD -----	735006106



# Evaporator-TEMA Heads (1998 to present)

There are five Evaporator Diameters used on the PEH063- 16", 20", 22", 24", 26". The Evaporator is available (as standard choices) in either 1, 2, or 3- pass arrangements, and the heads are different for each. There are two primary head nozzle connection types- Victaulic (standard) or Machined Flanges. There are standard heads or Marine Water Boxes. Also, there are ASME rated heads. See Evaporator nomenclature definitions to identify head types.

## 16" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380101 (2)	N/A	28- 735029625	28- 735033849	N/A

## 16" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380103	074380102	28- 735029625	28- 735033849	N/A
Flanged	No	074381703	074380102	28- 735029625	28- 735033851	N/A
Water Box						
Victaulic	No	074380153	074380102	42- 735029625	28- 735033941 14- 735033851	1- 744358602

## 20" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380501 (2)	N/A	44- 735029625	44- 735033849	N/A

## 20" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380503	074380502	44- 735029625	44- 735033849	N/A
Victaulic	Yes	074380513	074380512	44- 735029629	44- 735033542	N/A
Flanged	No	074382103	074380502	44- 735029625	44- 735033849	N/A
Water Box						
Victaulic	No	074380553	074380502	66- 735029625	44- 735033949 22- 735033851	1- 744358604
Water Box						
Flanged	No	074382153	074380502	66- 735029625	44- 735033942 22- 735033851	1- 744358604

## 20" Diameter/ 2 Pass/350 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	074380533	074380532	88- 735029629	88- 735033544	N/A

## 20" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380504	074380505	44- 735029625	44- 735033851	N/A

## 22" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380701 (2)	N/A	52- 735029625	52- 735033849	N/A

# Evaporator- TEMA Heads (1998 to present)

## 22" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380703	074380702	52- 735029625	52- 735033851	N/A
Victaulic	Yes	074380713	074380712	52- 735029625	52- 735033942	N/A
Flanged	No	074382303	074380702	52- 735029625	52- 735033851	N/A
Flanged	Yes	074382313	074380712	52- 735029625	52- 735033942	N/A
Water Box						
Victaulic	No	074380753	074380702	78- 735029625	26- 735033851 26- 735033942 26- 735033943	1- 744358605
Water Box						
Flanged	No	074382353	074380702	78- 735029625	26- 735033851 26- 735033942 26- 735033943	1- 744358605

## 22" Diameter/2 Pass/250 PSI Water Side (high pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380722	074380723	104- 735029629	104- 735033544	N/A
Water Box						
Victaulic	Yes	074380773	074380722	156- 735029625	156- 735033944	1- 744358619
Water Box						
Flanged	Yes	074382373	074380722	156- 735029625	156- 735033944	1- 744358619

## 22" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380704	074380705	52- 735029625	52- 735033851	N/A
Flanged	No	074382304	074382305	52- 735029625	52- 735033851	N/A
Water Box						
Victaulic	No	070080605	070080604	104- 735029625	52- 735033950 52- 735033941	2- 744358605

## 24" & 26" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380901 (2)	N/A	64- 735029626	64- 735033878	N/A
Flanged	No	074382501 (2)	N/A	64- 735029626	64- 735033878	N/A

## 24" & 26" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	074380913	074380912	64- 735029628	64- 735033569	N/A
Victaulic	No	074380903	074380902	64- 735029626	64- 735033878	N/A
Flanged	No	074382503	074380902	64- 735029626	64- 735033878	N/A
Flanged	Yes	074382513	074380912	64- 735029628	64- 735033569	N/A
Water Box						
Victaulic	No	070080803	074380902	96- 735029626	32- 735033877 64- 735033970	1- 744358606
Water Box						
Flanged	No	074380953	074380902	96- 735029626	32- 735033878 32- 735033969 32- 735033970	1- 744358606

# Evaporator- TEMA Heads (1998 to present)

## 24" & 26" Diameter/ 3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380904	074380905	64- 735029626	64- 735033878	N/A
Victaulic	Yes	074380914	074380915	64- 735029626	64- 735033969	N/A
Flanged	No	074382504	074382505	64- 735029626	64- 735033878	N/A

## 24" & 26" Diameter/ 2 Pass/250 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074380923	074380922	64- 735029628	64- 735033571	N/A
Flanged	No	074382523	074380922	64- 735029628	64- 735033571	N/A
Water Box						
Flanged	No	074380973	074380922	96- 735029626	64- 735033971 32- 735033972	1- 744358620

## 24" & 26" Diameter/2 Pass/350 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	074380933	074380932	64- 735029628	64- 735033872	N/A

# Evaporator Heads 1985- 1998

There are four Evaporator Diameters used on the PEH063- 16", 20", 22", 26". The Evaporator is available (as standard choices) in either 1, 2, or 3- pass arrangements, and the heads are different for each. There are two primary head nozzle connection types- Victaulic (standard) or Machined Flanges. There are standard heads or Marine Water Boxes. Also, there are ASME rated heads. See Evaporator nomenclature definitions to identify head types.

## 16" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070015601 (2)	N/A	28- 735029625	28- 735033849	N/A
Flanged	No	070033001 (2)	N/A	28- 735029625	28- 735033849	N/A
Water Box	No					
Victaulic		070080201 (2)	N/A	56- 735029625	56- 735033941	2- 744358602

## 16" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070015603	074380102	28- 735029625	28- 735033849	N/A
Flanged	No	070033003	074380102	28- 735029625	28- 735033849	N/A
Water Box						
Victaulic	No	070080203	074380102	42- 735029625	28- 735033941 14- 735033849	1- 744358602
Water Box						
Flanged	No	070148603	074380102	42- 735029625	42- 735033852	1- 744358602

## 16" Diameter/ 2 Pass/250 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	070857113	070857112	56- 735029629	56- 735033542	N/A

## 16" Diameter/ 2 Pass/350 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	070857123	070857122	56- 735029629	56- 735033542	N/A

## 16" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070015605	070015604	28- 735029625	28- 735033849	N/A
Flanged	No	070033005	070033004	28- 735029625	28- 735033849	N/A
Water Box						
Victaulic	No	070080205	070080204	56- 735029625	56- 735033852	2- 744358602

## 18" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	071509701 (2)	N/A	36- 735029625	36- 735033849	N/A
Water Box						
Victaulic	No	070839001 (2)	N/A	72- 735029625	72- 735033941	2- 744358603

## 18" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	072821503	072821504	36- 735029625	36- 735033941	N/A
Victaulic	No	071509703	074380302	36- 735029625	80- 735033849	N/A
Flanged	No	070839303	074380302	36- 735029625	80- 735033849	N/A
Water Box						
Victaulic	No	070839003	074380302	54- 735029625	18- 735033849 36- 735033941	1- 744358603
Water Box						
Flanged	No	070871703	074380302	54- 735029625	18- 735033849 36- 735033941	1- 744358603

# Evaporator Heads 1985- 1998

## 18" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	071509705	071509704	36- 735029625	36- 735033849	N/A
Flanged	No	070839305	070839304	36- 735029625	36- 735033849	N/A
Water Box						
Victaulic	No	070839005	070839004	72- 735029625	72- 735033941	2- 744358603

## 20" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070013701 (2)	N/A	44- 735029625	44- 735033849	N/A
Flanged	No	070033201 (2)	N/A	44- 735029625	44- 735033849	N/A
Water Box						
Victaulic	No	070080401 (2)	N/A	88- 735029625	88- 735033941	2- 744358604

## 20" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070013703	074380502	44- 735029625	44- 735033849	N/A
Flanged	No	070033203	074380502	44- 735029625	44- 735033849	N/A
Water Box						
Victaulic	No	070080403	074380502	66- 735029625	44- 735033941 22- 735033849	1- 744358604
Water Box						
Flanged	No	070148803	074380502	66- 735029625	44- 735033941 22- 735033849	1- 744358604

## 20" Diameter/ 2 Pass/250 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	072136302	072136301	88- 735029629	88- 735033543	N/A

## 20" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070013705	070013704	44- 735029625	44- 735033849	N/A
Flanged	No	070033205	070033204	44- 735029625	44- 735033849	N/A
Water Box						
Victaulic	No	070080405	070080404	88- 735029625	88- 735033941	2- 744358604

## 22" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070011101 (2)	N/A	52- 735029625	52- 735033849	N/A
Flanged	No	070035201 (2)	N/A	52- 735029625	52- 735033849	N/A
Water Box						
	No	070080601 (2)	N/A	104- 735029625	52- 735033941 52- 735033942	2- 744358605

# Evaporator Heads 1985- 1998

There are four Evaporator Diameters used on the PEH063- 16", 20", 22", 26". The Evaporator is available (as standard choices) in either 1, 2, or 3- pass arrangements, and the heads are different for each. There are two primary head nozzle connection types- Victaulic (standard) or Machined Flanges. There are standard heads or Marine Water Boxes. Also, there are ASME rated heads. See Evaporator nomenclature definitions to identify head types.

## 22" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070011103	074380702	52- 735029625	52- 735033849	N/A
Victaulic	Yes	072807603	072807602	52- 735029625	52- 735033942	N/A
Flanged	No	070035203	074380702	52- 735029625	52- 735033849	N/A
Flanged	Yes	072167302	070096802	52- 735029625	52- 735033942	N/A
Water Box						
Victaulic	No	070080603	074380702	78- 735029625	26- 735033851 26- 735033942 26- 735033943	1- 744358605
Water Box						
Flanged	No	071501602	074380702	78- 735029625	26- 735033851 26- 735033942 26- 735033943	1- 744358605

## 22" Diameter/2 Pass/250 PSI Water Side (high pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	071554602	071554601	104- 735029629	104- 735033543	N/A

## 22" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070011105	070011104	52- 735029625	52- 735033849	N/A
Flanged	No	070035205	070035204	52- 735029625	52- 735033849	N/A
Water Box						
Victaulic	No	070080605	070080604	104- 735029625	52- 735033940 52- 735033941	2- 744358605

## 26" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070016501 (2)	N/A	64- 735029626	64- 735033878	N/A
Victaulic	Yes	070098101 (2)	N/A	64- 735029626	64- 735033969	N/A
Flanged	No	070033401 (2)	N/A	64- 735029626	64- 735033878	N/A
Water Box	No					
Victaulic		070080801 (2)	N/A	96- 735029626	96- 735033970	2- 744358613
Water Box						
Flanged	No	070094611 (2)	N/A	128- 735029626	128- 735033970	2- 744358613

## 26" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070016505	070016504	64- 735029626	64- 735033878	N/A
Victaulic	Yes	070098105	070098104	64- 735029626	64- 735033969	N/A
Flanged	No	070033405	070033404	64- 735029626	64- 735033878	N/A
Water Box						
Victaulic	No	070080805	070080804	96- 735029626	96- 735033970	2- 744358613

## Evaporator Heads 1985- 1998

### 26" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	070098103	070098102	64- 735029626	64- 735033969	N/A
Victaulic	No	070016503	074380902	64- 735029626	64- 735033878	N/A
Flanged	No	070033403	074380902	64- 735029626	64- 735033878	N/A
Water Box						
Victaulic	No	070080803	074380902	96- 735029626	32- 735033877 64- 735033970	1- 744358613
Water Box						
Victaulic	Yes	070080803	776351254	48- 735029626	48- 735033970	1- 744358613
Water Box						
Flanged	No	070094603	074380902	96- 735029626	32- 735033877 32- 735033969 32-735033970	1- 744358613
Water Box						
Flanged	Yes	070094603	776351254	80- 735029626	80- 735033970	1- 744358613

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### 26" Diameter/ 2 Pass/250 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070098153	070098152	64- 735029628	64- 735033570	N/A

## Evaporator Heads Prior to 1985

For vessels built prior to 1985 consult Daikin McQuay Parts for selection and availability. Generally, the heads currently built may be retrofitted on any vessel built after 1975, but you should verify this before ordering.

# Evaporator Gaskets

## 1985- Present

The Gaskets for Evaporator heads are sold in two parts. The gasket itself is the rim that fits between the head and the Evaporator's tube sheet. 1-pass heads simply use the rim. 2-pass and 3-pass heads use the gasket plus a U-channel that is glued to the rim and fits over the baffles that separate the passes. This is a superior seal to the old gaskets that were used prior to 1990. The chart below lists the gasket part numbers and the amount of linear feet of channel must be ordered for the complete set of heads. Each gasket requires 3' of U-Channel. One-Pass heads use no U-Channel, 2-Pass heads use the U-Channel only on the connection end, 3-Pass heads use U-Channel on both ends. Water Box heads use two gaskets on each end, and the U-Channel requirements are doubled. **The U-Channel adhesive is part number 735026386.**

Dia.	Press.	Head Type-Passes	Gasket	Qty.	Channel	Qty
16"	150	Vict/Flange 1	070304601	2	N/A	0
16"	150	Water Box 1	070304601	4	N/A	0
16"	150	Vict/Flange 2	070304601	2	070189802	2'
16"	150	Water Box 2	070304601	3	070189802 *	4'
16"	250	Victaulic 2	070304611	2	070189801	2'
16"	150	Vict/Flange 3	070304601	2	070189802	4'
16"	150	Water Box 3	070304601	4	070189802 *	8'
20"	150	Vict/Flange 1	070304603	2	N/A	0
20"	150	Water Box 1	070304603	4	N/A	0
20"	150	Vict/Flange 2	070304603	2	070189802	2'
20"	150	Water Box 2	070304603	3	070189802 *	4'
20"	250	Victaulic 2	070304613	2	070189801	2'
20"	150	Vict/Flange 3	070304603	2	070189802	4'
20"	150	Water Box 3	070304603	4	070189802 *	
22"	150	Vict/Flange 1	070304604	2	N/A	0
22"	150	Water Box 1	070304604	4	N/A	0
22"	150	Vict/Flange 2	070304604	2	070189802	3'
22"	150	Water Box 2	070304604	3	070189802 *	6'
22"	250	Victaulic 2	070304614	2	070189801	3'
22"	150	Vict/Flange 3	070304604	2	070189802	6'
22"	150	Water Box 3	070304604	4	070189802 *	12'
26"	150	Vict/Flange 1	070304605	2	N/A	0
26"	150	Water Box 1	070304605	4	N/A	0
26"	150	Vict/Flange 2	070304605	2	070189802	3'
26"	150	Water Box 2	070304605	3	070189802 *	6'
26"	250	Victaulic 2	070304615	2	070189801	3'
26"	150	Vict/Flange 3	070304605	2	070189802	6'
26"	150	Water Box 3	070304605	4	070189802 *	12'

N/A = Not Applicable

\* On units built after 4/98, the Channel for Water Box Gaskets is 073258601.

**Note- Water Box Heads have an additional gasket for the Water Box Cover. The part numbers for this are: 16"- 074521601; 20"- 074521603; 22"- 074521604; 24"/26"- 074521605.**

# Evaporator Gaskets

## Prior to 1985

The evaporator nameplate has a "style number" on the dataplate. You can use this style number to identify the gaskets on older units.

Dia.	Style Number	Model	Passes	Gasket	Qty.
20"	761D989	All	2	744058006	2
20"	761D989	All	3	744058007	2
22"	761D989	All	2	744058005	2
22"	761D989	All	3	744058004	2
26"	762D247	All	2	759615001	2
26"	762D247	All	3	759615002	2
20"	763D499	All	All	735082956	2
22"	763D499	All	All	735082952	2
26"	763D499	All	All	735082965	2



# Evaporator Tubes

## Mid 70's- Present

The Evaporator Model Number located on the Evaporator Data Plate defines the tubes used. A Sample current model number is as follows: E2212-1B-2RA. The 7th digit defines the tube type. For older type model numbers contact Daikin McQuay Parts. See Evaporator nomenclature.

Length	Code	Tube Type	TubeMaterial	Wall	Part Number
*12'	A	19 Fins/Inch: Plain	Copper	.028	735028334
*12'	B	26 Fins/Inch: Turbo Chill	Copper	.028	735028336
*12'	C	19 Fins/Inch: Plain	Copper	.035	735028339
*12'	D	26 Fins/Inch: Turbo Chill	Copper	.035	735028342
*12'	J	19 Fins/Inch: Plain	CU/NI 90/10	.028	735028394
*12'	K	26 Fins/Inch: Turbo Chill	CU/NI 90/10	.028	735028338
*12'	R	19 Fins/Inch: Plain	CU/NI 70/30	.049	735028347
*12'	S	28 Fins/Inch: Plain	Stainless	.028	735028348
*12'	T	28 Fins/Inch: Turbo Chill	Stainless	.028	735028357
*12'	U	32 Fins/Inch: Plain	Titanium	.028	735028345
*12'	2	Turbo B	Copper	.028	735028370
*12'	3	Turbo B	Copper	.035	735028389
*12'	7	Turbo BII	Copper	.028	070181130
*12'	8	Turbo BII	Copper	.025	070181121
*12'	9	Turbo BII	Copper	.035	070181131
*12'	E	Turbo BIII	Copper	.028	070181194
*12'	F	Turbo BIII	Copper	.025	070181195
*12'	Q	Turbo BIII	Copper	.035	073238512
16'	A	19 Fins/inch: Plain	Copper	.028	735028319
16'	B	26 Fins/Inch: Turbo Chill	Copper	.028	735028361
16'	C	19 Fins/inch: Plain	Copper	.035	735028312
16'	T	28 Fins/Inch: Turbo Chill	Stainless	.028	735028360
16'	Z	32 Fins/inch: Turbo Chill	Titanium	.028	070181154
16'	2	Turbo B	Copper	.028	735028372
16'	3	Turbo B	Copper	.035	735028393
16'	7	Turbo BII	Copper	.028	070181135
16'	8	Turbo BII	Copper	.025	070181125
16'	9	Turbo BII	Copper	.035	070181136
16'	E	Turbo BIII	Copper	.025	070181198
16'	F	Turbo BIII	Copper	.028	070181199
16'	Q	Turbo BIII	Copper	.035	073238514

**\*NOTE:** The units built prior to the mid 1970's had a different style vessel shell stack that affects the tubes used in the 12' vessels. There have been three shell vessel stacks employed through the years:

1. The original stack had the evaporator stacked directly on top of the condenser, and there was a collar around the condenser tube sheet. For units employing this stack the evaporator tubes are 144".
2. In the mid 70's the units were redesigned and the Evaporator and Condenser were still stacked one atop the other, but the support collar was removed and the two vessel's tube sheets were welded directly together. These units tubes were 142 7/8" (the length currently used)
3. In the late 80's the units were redesigned to employ a staggered shell stack. The tube lengths did not change with this redesign.

Generally speaking, if a unit was built in 1972 or earlier the tubes in 12' vessels are 144". If the unit was built in 1976 or later, the tubes in 12 vessels are 142 7/8". If the unit was built between 1973-1975 it is best to look at the unit to verify.

Also note, the 16' tubes have never been affected by these redesigns.

## Evaporator Tubes- 12'

### 1966 to Mid 70's

The units built with the "collared shell stack" were built before the Turbo B tubes were invented. The original Evaporator used the same 12' tubes for years. However, for retrofit purposes the 144" tubes are available in the following styles:

PL19- 735028316  
 Turbo B Copper- 070181109

# Evaporator Tube Counts

The Evaporator Model Number located on the Evaporator Data Plate defines the tube count. There have been essentially three generations of Evaporator Model Number Types. A Sample model number of each of these three types follows:

**Original: TC075.** This is the model number and the entire number is required to define the tube count.

**2nd Generation: E2212-1B-2RA.** The first 6 digits define the tube count. **TEMA vessels, currently in use: E1612-QB-2RA.**

See nomenclature page for complete Evaporator nomenclature.

Original		2nd, cont.		TEMA (current)			
Evap Model	Count	Evap Model	Count	Evap Model	Count	Evap Model	Count
TC135	138	E2016-1	155	E1612-Q	95	E2016-Q	137
TC174	180	E2016-2	195	E1612-R	123	E2016-R	150
TC191	198	E2016-3	209	E1612-S	131	E2016-S	175
TC235	244	E2016-4	229	E2012-Q	137	E2016-T	188
TC260	270	E2216-1	236	E2012-R	150	E2216-Q	174
TC289	300	E2216-2	253	E2012-S	175	E2216-R	188
TC330	342	E2216-3	274	E2012-T	188	E2216-S	216
2nd		E2616-1	301	E2212-Q	174	E2216-T	230
Evap Model	Count	E2616-2	353	E2212-R	188	E2416-Q	246
E1612-1	91	E2616-3	373	E2212-S	216	E2416-R	262
E1612-2	122	E2616-4	398	E2212-T	230	E2416-S	291
E1612-3	134			E2412-Q	246	E2416-T	301
E1612-4	149			E2412-R	262	E2616-Q	298
E2012-1	155			E2412-S	291	E2616-R	320
E2012-2	195			E2412-T	301	E2616-S	346
E2012-3	209			E2612-Q	298	E2616-T	368
E2012-4	229			E2612-R	320		
E2212-1	236			E2612-S	346		
E2212-2	253			E2612-T	368		
E2212-3	274						
E2612-1	301						
E2612-2	353						
E2612-3	373						
E2612-4	398						

# Condenser Tube Counts

The Condenser Model Number located on the Condenser Data Plate defines the tube count. There have been essentially four generations of Condenser Model Number Types. A Sample model number of each of these three types follows:

**Original: KB242.** This is the model number and the entire number is required to define the tube count.

**2nd- early 80's: C2212-BBYY-2RA.** The first 6 digits define the tube count.

**3rd- early 80's until 1998: C2212-1BYY-2RA.** The first 6 digits define the tube count.

**TEMA-current: C2212-RBYY-2RA.** The first 6 digits define the tube count. See Nomenclature Condenser nomenclature.

Original		Third				TEMA- Current			
Evap Model	Count	Cond Model	Count	Cond Model	Count	Cond Model	Count	Cond Model	Count
KB124	128	C1612-1	131	C1816-1	195	C1612-Q	129	C1816-Q	167
KB155	160	C1612-2	157	C1816-2	212	C1612-R	132	C1816-R	180
KB198	204	C1612-3	172	C1816-3	229	C1612-S	158	C1816-S	201
KB208	212	C1612-4	187	C1816-4	238	C1612-T	166	C1816-T	211
KB235	240	C1612-5	196	C2216-1	279	C1812-Q	167	C2216-Q	244
KB269	276	C1812-1	195	C2216-2	343	C1812-R	180	C2216-R	304
KB272	276	C1812-2	212	C2216-3	365	C1812-S	201	C2216-S	305
KB305	316	C1812-3	229	C2216-4	386	C1812-T	211	C2216-T	347
Second		C1812-4	238	C2216-5	398	C2212-Q	244	C2216-U	363
Cond Model	Count	C2212-1	279			C2212-R	304		
C1812-F	128	C2212-2	343			C2212-S	305		
C1812-G	155	C2212-3	365			C2212-T	347		
C1812-H	204	C2212-4	386			C2212-U	363		
C2212-J	212	C2212-5	398						
C2212-K	240								
C2212-L	276								
C2212-M	316								

# Condenser- TEMA Heads (1998 to Present)

There are three Condenser Diameters used on the PEH063- 16", 18", 22". The Condenser is available (as standard choices) in either 1, 2, or 3- pass arrangements, and the heads are different for each. There are two primary head nozzle connection types- Victaulic (standard), or Machined Flanges, and two head types- Standard or Marine Water Boxes. Also, there are ASME rated heads. See nomenclature pages for Condenser nomenclature definitions to identify head types.

## 16" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074383301 (2)	N/A	28- 735029625	28- 735033851	N/A

## 16" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074383303	074380102	28- 735029625	28- 735033851	N/A
Flanged	No	074384703	074380102	28- 735029625	28- 735033851	N/A
Water Box						
Victaulic	No	074383353	074380102	42- 735029625	14- 735033851 28- 735033941	1- 744358602

## 18" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074383501 (2)	N/A	36- 735029625	36- 735033851	N/A

## 18" Diameter/ 2 Pass/250 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	074383523	074380322	72- 735029629	72- 735033543	N/A
Flanged	Yes	074384923	074380322	72- 735029629	72- 735033543	N/A

## 18" Diameter/ 2 Pass/350 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	074383533	074380332	72- 735029629	72- 735033543	N/A

## 18" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074383503	074380302	36- 735029625	36- 735033851	N/A
Victaulic	Yes	074383513	074380312	36- 735029625	36- 735033842	N/A
Flanged	No	074384903	776431529	36- 735029625	36- 735033851	N/A
Flanged	Yes	074384913	074380312	36- 735029625	36- 735033842	N/A
Water Box						
Victaulic	No	074383553	074380302	54- 735029625	18- 735033851 18- 735033941 18- 735033942	1- 744358603
Flanged	No	074384953	074380302	54- 735029625	18- 735033851 18- 735033941 18- 735033942	1- 744358603

## 18" Diameter/ 3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074383504	074380505	36- 735029625	36- 735033851	N/A
Victaulic	Yes	074383514	074380515	36- 735029625	36- 735033841	N/A

## Condenser- TEMA Heads (1998 to Present)

### 22" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074383703	074380702	52- 735029625	52- 735033851	N/A
Victaulic	Yes	074383713	070096812	52- 735029625	52- 735033942	N/A
Flanged	No	074385103	776431526	52- 735029625	52- 735033851	N/A
Flanged	Yes	074385113	074380712	52- 735029625	52- 735033942	N/A
Water Box						
Victaulic	No	074383753	074380702	78- 735029625	26- 735033943 26- 735033851 26- 735033942	1- 744358605
Water Box						
Flanged	No	074385153	074380702	78- 735029625	26- 735033943 26- 735033851 26- 735033942	1- 744358605

### 22" Diameter/2 Pass/250 PSI Water Side (high pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	074383723	074380722	104- 735029629	104- 735033542	N/A
Flanged	Yes	074385173	074380722	104- 735029625	104- 735033944	N/A

### 22" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074383704	074383705	52- 735029625	52- 735033851	N/A
Flanged	No	074385104	074385105	52- 735029625	52- 735033851	N/A
Water Box						
Victaulic	No	070081405	070081404	104- 735029625	52- 735033940 52- 735033941	2- 744358605

### 22" Diameter/2 Pass/350 PSI Water Side (high pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	074383733	074380732	104- 735029629	104- 735033545	N/A

### 26" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	074383901 (2)	N/A	64- 735029626	64- 735033878	N/A

# Condenser Heads 1985- 1998

There are three Condenser Diameters used on the PEH063- 16", 18", 22". The Condenser is available (as standard choices) in either 1, 2, or 3- pass arrangements, and the heads are different for each. There are two primary head nozzle connection types- Victaulic (standard), or Machined Flanges, and two head types- Standard or Marine Water Boxes. Also, there are ASME rated heads. See nomenclature pages for Condenser nomenclature definitions to identify head types.

## 16" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070014301 (2)	N/A	28- 735029625	28- 735033849	N/A
Flanged	No	070033601 (2)	N/A	28- 735029625	28- 735033849	N/A
Water Box						
Victaulic	No	070081001	N/A	56- 735029625	56- 735033852	2- 744358602

## 16" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	070014313	070014312	28- 735029625	28- 735033941	N/A
Victaulic	No	070014303	074380102	28- 735029625	28- 735033849	N/A
Flanged	No	070033603	074380102	28- 735029625	28- 735033849	N/A
Water Box						
Victaulic	No	070081003	074380102	42- 735029625	14- 735033849 28- 735033941	1- 744358602
Water Box						
Flanged	No	070149403	074380102	42- 735029625	42- 735033941	1- 744358602

## 16" Diameter/ 2 Pass/350 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070014344	070014342	28- 735029629	28- 735033542	N/A

## 16" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070014305	070014304	28- 735029625	28- 735033849	N/A
Flanged	No	070033605	070033604	28- 735029625	28- 735033849	N/A
Water Box						
Victaulic	No	070810005	070810004	56- 735029625	56- 735033852	2- 744358602

## 18" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070012901 (2)	N/A	36- 735029625	36- 735033849	N/A
Flanged	No	070035401 (2)	N/A	36- 735029625	36- 735033849	N/A
Water Box						
Victaulic	No	070081201 (2)	N/A	72- 735029625	72- 735033941	2- 744358603

## 18" Diameter/ 2 Pass/250 PSI Water Side (High Pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	072142202	072142203	72- 735029629	72- 735033542	N/A

# Condenser Heads 1985- 1998

## 18" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070012903	074380302	36- 735029625	36- 735033849	N/A
Victaulic	Yes	072821603	072821604	36- 735029625	36- 735033941	N/A
Flanged	No	070035403	074380302	36- 735029625	36- 735033849	N/A
Water Box						
Victaulic	No	070081203	074380302	54- 735029625	18- 735033849 36- 735033941	2- 744358603
Water Box						
Flanged	No	070149603	074380302	54- 735029625	18- 735033849 36- 735033941	2- 744358603

## 18" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070012905	070012904	36- 735029625	36- 735033849	N/A
Flanged	No	070035405	070035404	36- 735029625	36- 735033849	N/A
Water Box						
Victaulic	No	070081205	070081204	72- 735029625	72- 735033941	2- 744358603

## 22" Diameter/ 1 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	070096801 (2)	N/A	52- 735029625	52- 735033942	N/A
Victaulic	No	070011901 (2)	N/A	52- 735029625	52- 735033849	N/A
Flanged	No	070033801 (2)	N/A	52- 735029625	52- 735033849	N/A
Water Box	No	070081401 (2)	N/A	104- 735029625	52- 735033940	2- 744358605
Victaulic					52- 735033941	

## 22" Diameter/ 2 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	No	070011903	074380702	52- 735029625	52- 735033849	N/A
Victaulic	Yes	070096803	070096802	52- 735029625	52- 735033942	N/A
Flanged	No	070033803	074380702	52- 735029625	52- 735033849	N/A
Water Box						
Victaulic	No	070081403	074380702	78- 735029625	26- 735033849 26- 735033941 26- 735033940	1- 744358605
Water Box						
Flanged	No	071501702	074380702	78- 735029625	26- 735033849 26- 735033941 26- 735033940	1- 744358605

## 22" Diameter/2 Pass/250 PSI Water Side (high pressure)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	071507302	071507301	104- 735029629	104- 735033543	N/A

## Condenser Heads 1985- 1998

### 22" Diameter/3 Pass/150 PSI Water Side (standard)

Nozzle	ASME	Connection Head	Return Head	Nut	Bolt	W.B. Cover
Victaulic	Yes	070096805	070096804	52- 735029625	52- 735033942	N/A
Victaulic	No	070011905	070011904	52- 735029625	52- 735033849	N/A
Flanged	No	070033805	070033804	52- 735029625	52- 735033849	N/A
Water Box						
Victaulic	No	070081405	070081404	104- 735029625	52- 735033940 52- 735033941	2- 744358605

## Condenser Heads Prior to 1985

For vessels built prior to 1985 consult Daikin McQuay Parts for selection and availability. Generally, the heads currently built may be retrofitted on any vessel built after 1975, but you should verify this before ordering.



# Condenser Gaskets

## 1985- Present

The Gaskets for Condenser heads are sold in two parts. The gasket itself is the rim that fits between the head and the Condenser's tube sheet. 1-pass heads simply use the rim. 2-pass and 3-pass heads use the gasket plus a U-channel that is glued to the rim and fits over the baffles that separate the passes. This is a superior seal to the old gaskets that were used prior to 1990. The chart below lists the gasket part numbers and the amount of linear feet of channel must be ordered for the complete set of heads. Each gasket requires 3' of U-Channel. One-Pass heads use no U-Channel, 2-Pass heads use the U-Channel only on the connection end, 3-Pass heads use U-Channel on both ends. Water Box heads use two gaskets on each end, and the U-Channel requirements are doubled. **The U-Channel adhesive is part number 735026386.**

Dia.	Press.	Head Type-Passes	Gasket	Qty.	Channel	Qty
16"	150	Vict/Flange 1	070304601	2	N/A	0
16"	150	Water Box 1	070304601	4	N/A	0
16"	150	Vict/Flange 2	070304601	2	070189802	2'
16"	150	Water Box 2	070304601	3	070189802 *	4'
16"	250	Victaulic 2	070304611	2	070189801	2'
16"	150	Vict/Flange 3	070304601	2	070189802	4'
16"	150	Water Box 3	070304601	4	070189802 *	8'
18"	150	Vict/Flange 1	070304602	2	N/A	0
18"	150	Water Box 1	070304602	4	N/A	0
18"	150	Vict/Flange 2	070304602	2	070189802	2'
18"	150	Water Box 2	070304602	3	070189802 *	4'
18"	250	Victaulic 2	070304612	2	070189801	2'
18"	150	Vict/Flange 3	070304602	2	070189802	4'
18"	150	Water Box 3	070304602	4	070189802 *	8'
22"	150	Vict/Flange 1	070304604	2	N/A	0
22"	150	Water Box 1	070304604	4	N/A	0
22"	150	Vict/Flange 2	070304604	2	070189802	3'
22"	150	Water Box 2	070304604	3	070189802 *	6'
22"	250	Victaulic 2	070304614	2	070189801	3'
22"	150	Vict/Flange 3	070304604	2	070189802	6'
22"	150	Water Box 3	070304604	4	070189802 *	12'

N/A = Not Applicable

\* On units built after 4/98, the Channel for Water Box Gaskets is 073258601.

**Note- Water Box Heads have an additional gasket for the Water Box Cover. The part numbers for this are: 16"- 074521601; 18"- 074521602; 22"- 074521604.**

# Condenser Gaskets

## Prior to 1985

The condenser nameplate has a "style number" on the dataplate. You can use this style number to identify the gaskets on older units.

Dia.	Length	Style No.	Passes	Gasket	Qty.
18"	12'	761D981	All	735313409	2
18"	12'	763D484	All	735082904	2
18"	12'	763D496	All	735082904	2
18"	12'	763D555	All	735082904	2
18"	12'	763D938	All	735082904	2
22"	12'	762D255	1, 2	759615006	2
22"	12'	762D255	3	759615005	2
22"	12'	763D484	3	735082948	2
22"	12'	763D496	3	735082948	2
22"	12'	763D555	3	735082948	2
22"	12'	763D938	3	735082948	2



# Condenser Tubes

## Mid 70's- Present

The Condenser Model Number located on the Condenser Data Plate defines the tubes used. A Sample current model number is as follows:C2212-1CYY-2RA. The 7th digit defines the tube type. For older type model numbers contact Daikin McQuay Partst. See Condenser nomenclature.

Length	Code	Tube Type	TubeMaterial	Wall	Part Number
12'	A	19 Fins/inch: Plain	Copper	.028	735028334
12'	B	26 Fins/Inch: Turbo Chill	Copper	.028	735028336
12'	C	19 Fins/inch: Plain	Copper	.035	735028339
12'	D	26 Fins/Inch: Turbo Chill	Copper	.035	735028342
12'	J	19 Fins/inch: Plain	CU/NI 90/10	.028	735028394
12'	K	26 Fins/Inch: Turbo Chill	CU/NI 90/10	.028	735028338
12'	R	19 Fins/inch: Plain	CU/NI 70/30	.049	735028347
12'	S	28 Fins/Inch: Plain	Stainless	.028	735028348
12'	T	28 Fins/Inch: Turbo Chill	Stainless	.028	735028357
12'	U	32 Fins/inch: Plain	Titanium	.028	735028345
12'	1	Turbo C	CU/NI 90/10	.028	070181147
12'	4	Turbo CII	CU/NI 90/10	.035	070181148
12'	5	Turbo CII	Copper	.028	070181164
12'	6	Turbo CII	Copper	.035	070181165
12'	N	Turbo CIII	Copper	.028	073238526
12'	P	Turbo CIII	Copper	.035	073238533
16'	A	19 Fins/inch: Plain	Copper	.028	735028319
16'	B	26 Fins/Inch: Turbo Chill	Copper	.028	735028361
16'	C	19 Fins/inch: Plain	Copper	.035	735028312
16'	H	Turbo CII: Plain	Copper	.035	070181190
16'	1	Turbo C	CU/NI 90/10	.028	735028396
16'	2	Turbo C	Copper	.028	735028384
16'	3	Turbo C	Copper	.035	735028382
16'	4	Turbo CII	Copper	.028	070181151
16'	5	Turbo CII	Copper	.028	070181168
16'	6	Turbo CII	Copper	.035	070181169
16'	N	Turbo CIII	Copper	.028	073238527
16'	P	Turbo CIII	Copper	.035	073238534

**\*NOTE:** The units built prior to the mid 1970's had a different style vessel shell stack that affects the tubes used in the 12' vessels. There have been three shell vessel stacks employed through the years:

1. The original stack had the evaporator stacked directly on top of the condenser, and there was a collar around the condenser tube sheet. For units employing this stack the Condenser tubes are 144".
2. In the mid 70's the units were redesigned and the Evaporator and Condenser were still stacked one atop the other, but the support collar was removed and the two vessel's tube sheets were welded directly together. These units tubes were 142 7/8" (the length currently used)
3. In the late 80's the units were redesigned to employ a staggered shell stack. The tube lengths did not change with this redesign.

Generally speaking, if a unit was built in 1972 or earlier the tubes in 12' vessels are 144". If the unit was built in 1976 or later, the tubes in 12' vessels are 142 7/8". If the unit was built between 1973-1975 it is best to look at the unit to verify. Also note, the 16' tubes have never been affected by these redesigns.

## Condenser Tubes- 12'

### 1966 to Mid 70's

The units built with the "collared shell stack" were built before the Turbo B tubes were invented. The original Condenser used the same 12' tubes for years. However, for retrofit purposes the 144" tubes are available in the following styles:

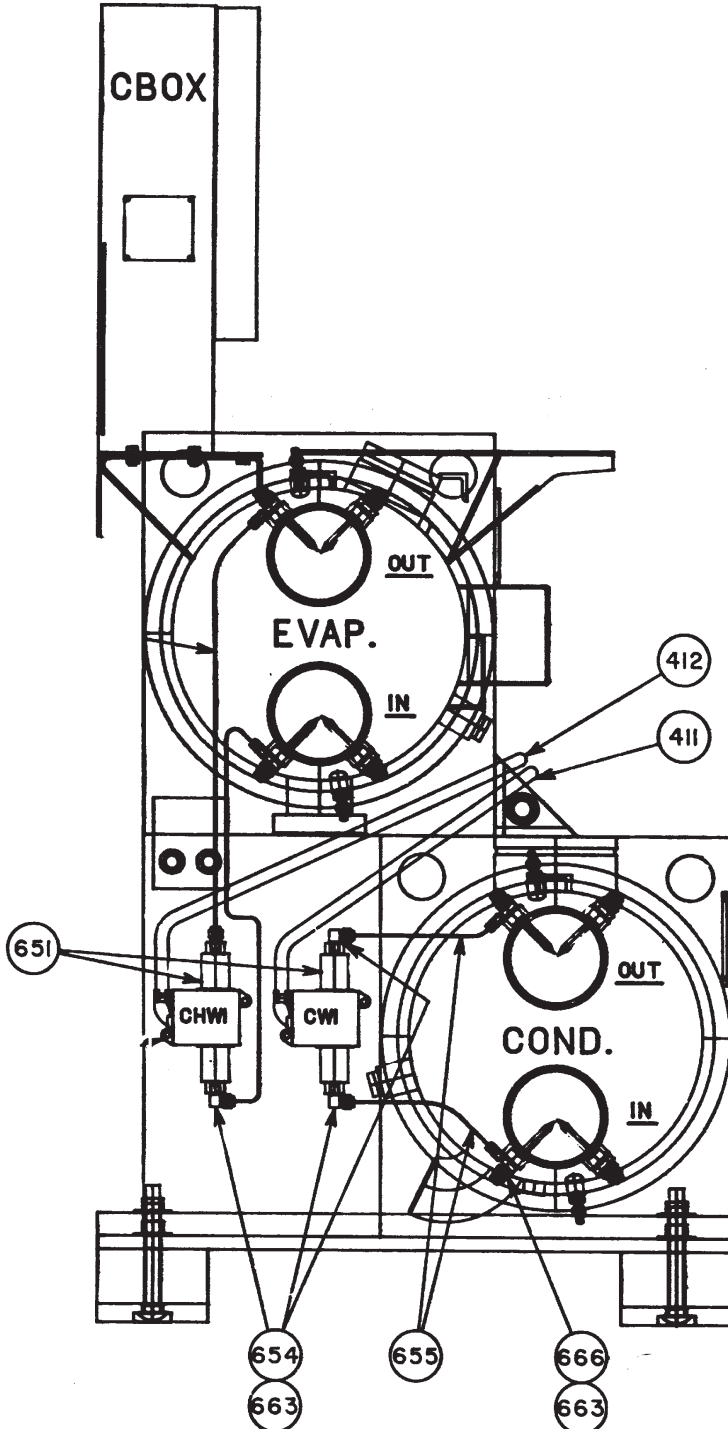
PL19-                   735028316  
 Turbo C Copper-   070181110

# Differential Water Pressure Switch

There are several possible arrangements for the placement of the DWPS. The primary factors are:

1. Is the switch installed for the Condenser, Evaporator, or Both?
2. The Vessels' length
3. The number of head passes and the nozzle location of the Evaporator and the number of head passes and the nozzle location of the Condenser.

(use the chart below right to select the correct Group of parts on the next page)



1.	2.	3. -----	Group #
Both	12'	2L2R-----	4
Both	12'	2L2L-----	2
Both	12'	2L3R-----	2
Both	12'	2R2L-----	3
Both	12'	2R2R-----	1
Both	12'	2L3L-----	2
Both	12'	2R3L-----	1
Both	12'	2R3R-----	1
Both	12'	3L2L-----	2
Both	12'	3L2R-----	1
Both	12'	3L3L-----	1
Both	12'	3L3R-----	1
Both	12'	3R2L-----	2
Both	12'	3R2R-----	1
Both	12'	3R3L-----	1
Both	12'	3R3R-----	1
Both	16'	2L2R-----	7
Both	16'	2L2L-----	6
Both	16'	2L3R-----	6
Both	16'	2R2L-----	6
Both	16'	2R2R-----	5
Both	16'	2L3L-----	6
Both	16'	2R3L-----	5
Both	16'	2R3R-----	5
Both	16'	3L2L-----	6
Both	16'	3L2R-----	5
Both	16'	3L3L-----	5
Both	16'	3L3R-----	5
Both	16'	3R2L-----	6
Both	16'	3R2R-----	5
Both	16'	3R3L-----	5
Both	16'	3R3R-----	5
Evap	12'	2R-----	8
Evap	12'	2L-----	9
Evap	12'	3R-----	8
Evap	12'	3L-----	8
Evap	16'	2L-----	11
Evap	16'	2R-----	10
Evap	16'	3L-----	10
Evap	16'	3R-----	10
Cond	12'	2L-----	13
Cond	12'	2R-----	12
Cond	12'	3L-----	12
Cond	12'	3R-----	12
Cond	16'	2L-----	15
Cond	16'	2R-----	14
Cond	16'	3L-----	14
Cond	16'	3R-----	14

# Differential Water Pressure Switch, Continued

## Group 1

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543662
412	1	Cable Ass'y	071543661
651	2	Pressure Switch	See Note
654	4	Elbow	001124300
655	2	T- Ass'y	735061406
663		Sealant	735026317
666	4	Well- Water Nozzle	072867501

## Group 2

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543664
412	1	Cable Ass'y	071543663
651	2	Pressure Switch	See Note
654	4	Elbow	001124300
655	2	T- Ass'y	735061406
663		Sealant	735026317
666	4	Well- Water Nozzle	072867501

## Group 3

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543664
412	1	Cable Ass'y	071543661
651	2	Pressure Switch	See Note
654	4	Elbow	001124300
655	2	T- Ass'y	735061406
663		Sealant	735026317
666	4	Well- Water Nozzle	072867501

## Group 4

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543662
412	1	Cable Ass'y	071543663
651	2	Pressure Switch	See Note
654	4	Elbow	001124300
655	2	T- Ass'y	735061406
663		Sealant	735026317
666	4	Well- Water Nozzle	072867501

## Group 5

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543672
412	1	Cable Ass'y	071543671
651	2	Pressure Switch	See Note
654	4	Elbow	001124300
655	2	T- Ass'y	735061406
663		Sealant	735026317
666	4	Well- Water Nozzle	072867501

## Group 6

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543674
412	1	Cable Ass'y	071543673
651	2	Pressure Switch	See Note
654	4	Elbow	001124300
655	2	T- Ass'y	735061406
663		Sealant	735026317
666	4	Well- Water Nozzle	072867501

## Group 7

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543672
412	1	Cable Ass'y	071543673
651	2	Pressure Switch	See Note
654	4	Elbow	001124300
655	2	T- Ass'y	735061406
663		Sealant	735026317
666	4	Well- Water Nozzle	072867501

## Group 8

Ref #	Qty.	Description	Part No.
412	1	Cable Ass'y	071543661
651	1	Pressure Switch	See Note
654	2	Elbow	001124300
663		Sealant	735026317
666	2	Well- Water Nozzle	072867501

## Group 9

Ref #	Qty.	Description	Part No.
412	1	Cable Ass'y	071543663
651	1	Pressure Switch	See Note
654	2	Elbow	001124300
663		Sealant	735026317
666	2	Well- Water Nozzle	072867501

## Group 10

Ref #	Qty.	Description	Part No.
412	1	Cable Ass'y	071543671
651	1	Pressure Switch	See Note
654	2	Elbow	001124300
663		Sealant	735026317
666	2	Well- Water Nozzle	072867501

## Group 11

Ref #	Qty.	Description	Part No.
412	1	Cable Ass'y	071543673
651	1	Pressure Switch	See Note
654	2	Elbow	001124300
663		Sealant	735026317
666	2	Well- Water Nozzle	072867501

## Group 12

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543662
651	1	Pressure Switch	See Note
654	2	Elbow	001124300
663		Sealant	735026317
666	2	Well- Water Nozzle	072867501

## Group 13

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543664
651	1	Pressure Switch	See Note
654	2	Elbow	001124300
663		Sealant	735026317
666	2	Well- Water Nozzle	072867501

## Group 14

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543672
651	1	Pressure Switch	See Note
654	2	Elbow	001124300
663		Sealant	735026317
666	2	Well- Water Nozzle	072867501

## Group 15

Ref #	Qty.	Description	Part No.
411	1	Cable Ass'y	071543674
651	1	Pressure Switch	See Note
654	2	Elbow	001124300
663		Sealant	735026317
666	2	Well- Water Nozzle	072867501

Note: Pressure switch part #070180519 - used for units where the water side = 150 PSIG.

Pressure switch part #070180523 - used for units where the water side = 151 PSIG or greater, also used on ALL Dual Units.

# Compressor 1966-1984 (Engineering Revisions 0 & A) Notes

The original CE063 compressor was used on units built between 1966 and 1984. The compressor underwent a few major changes in that period.

1. In the mid 1970's the compressor motors were changed. See "Compressor 1966-1984 (Eng Rev 0 & A) Motor Replacement & Retrofit" page for more information.

2. In the mid 1970's the motor terminals (Low Voltage) changed from a porcelain-housed terminal to the spark plug that is still in use today. If the old porcelain terminals are still installed and one requires replacement, all six need to be replaced, by retrofitting with the current spark plugs. No other parts are required to complete the retrofit (aside from the motor end cover O'Ring), but the housing will have to be drilled and tapped. Please contact Daikin McQuay Parts to procure Service Bulletin 14-8626-B which describes the procedure.

3. In the late 1970's the motor end cover was changed from a rounded style to a flush, or flat style.

4. In 1982 the impeller and high speed shaft were changed from a spiral style mount to a tapered mount. See the High Speed Assembly detail for retrofit information.

5. In 1985 a new design compressor was introduced and the original design was discontinued.

# Compressor 1966-1984 (Engineering Revisions 0 & A) Gears

## Pinions

Qty.	Gear Code -----Part No.
1	AG -----759526365
	AH -----759526351
	AJ -----759526352
	AK -----759526353
	AL -----759526354
	AM -----759526355
	AN -----759526356
	AP -----759526357
	AQ -----759526358
	AR -----759526359
	AS -----759526360
	AT -----759526361
	AU -----759526362
	AV -----759526363
	AW -----759526364

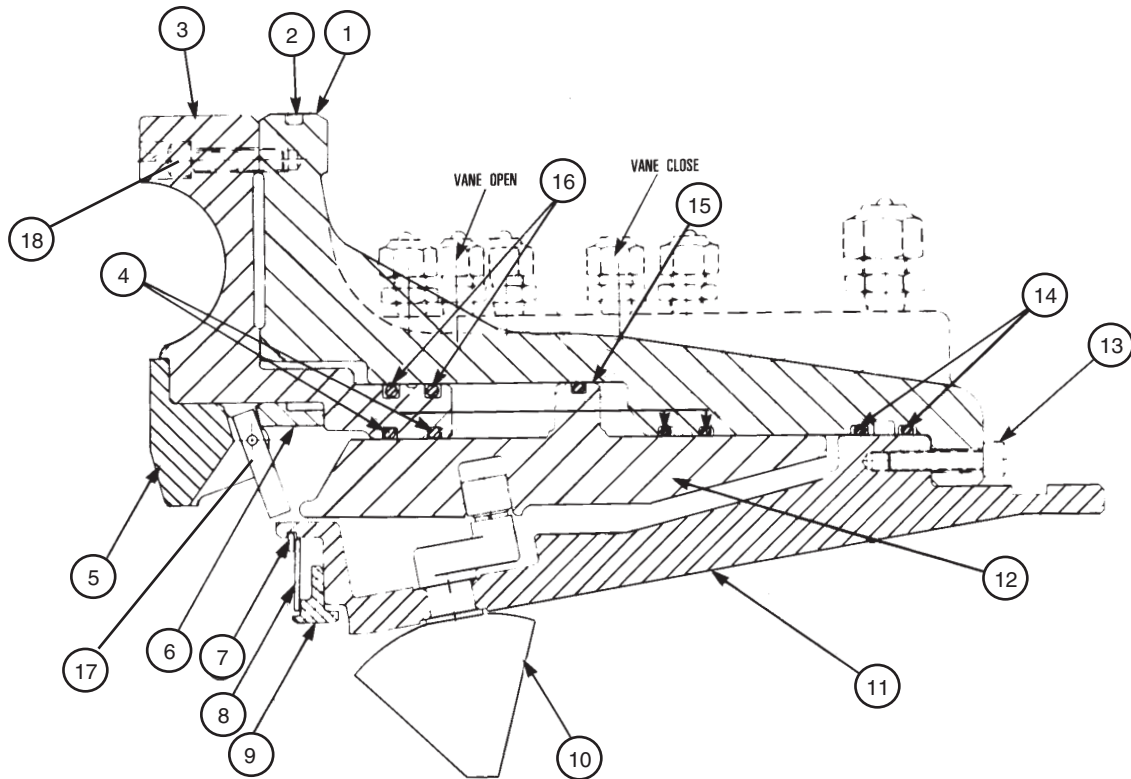
## Low Speed (Includes L.S. Shaft)

Qty.	Gear Code -----Part No.
1	AG -----071640365 + 071556324
	AH -----071640351 + 071556324
	AJ -----071640352 + 071556324
	AK -----071640353 + 071556324
	AL -----071640354 + 071556324
	AM -----071640355 + 071556324
	AN -----071640356 + 071556324
	AP -----071640357 + 071556324
	AQ -----071640358 + 071556324
	AR -----071640359 + 071556324
	AS -----071640360 + 071556324
	AT -----071640361 + 071556324
	AU -----071640362 + 071556324
	AV -----071640363 + 071556324
	AW -----071640364 + 071556324

Note- 071556324 is a spacer kit that should always be ordered when a Low Speed Gear/Shaft is ordered. This kit includes spacers that may be required to insure that the new low speed shaft fits properly with the old rotor.

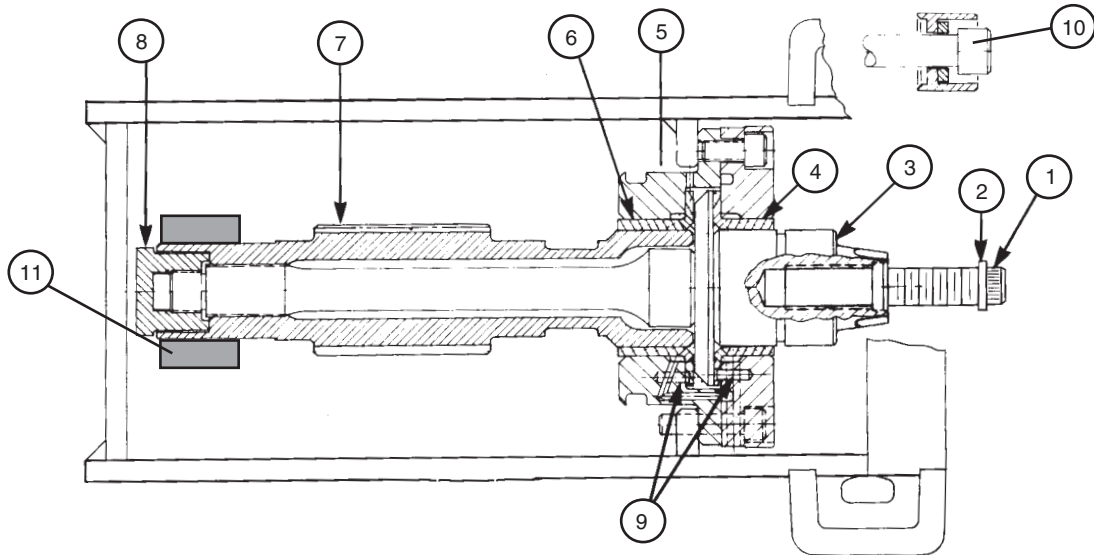
# Compressor 1966-1984 (Engineering Revisions 0 & A)

## Inlet Guide Vane Ass'y



Ref #	Qty.	Description -----	Part Number
1	1	Compressor Cover -----	753533802
2	1	O'Ring- Cover-----	735043682
3	1	Front Scroll -----	776124302
4	4	O'Ring -----	735043666
5	1	Diffuser Block Assembly- J Impeller -----	776124402
		Diffuser Block Assembly- K Impeller-----	776124401
6	1	Compensating Ring -----	735235501
7	1	Snap Seal (Sprolox)-----	735049812
8	1	Seal Retaining Ring-----	735235701
9	1	Impeller Seal-----	735235601
10	7	Inlet Guide Vane Assembly-----	735430801
11	1	Inlet Cone Ass'y- J Impeller-----	776124002
		Inlet Cone Ass'y- K Impeller-----	776124001
12	1	Piston -----	759526402
13	3	Cap Screws -----	735036475
14	2	O'Ring -----	735043621
15	1	O'Ring -----	735043667
16	1	O'Ring -----	735043632
17	4	Diffuser Block Levers -----	735235401
		Pins for levers-----	735038041
18	6	Screw -----	735036475
		Complete IGV Ass'y- J Impeller-----	759526704
		Complete IGV Ass'y- K Impeller -----	759526704
		Complete O'Ring Kit- IGV Ass'y -----	735099010

# Compressor 1966-1984 (Engineering Revisions 0 & A) High Speed Assy



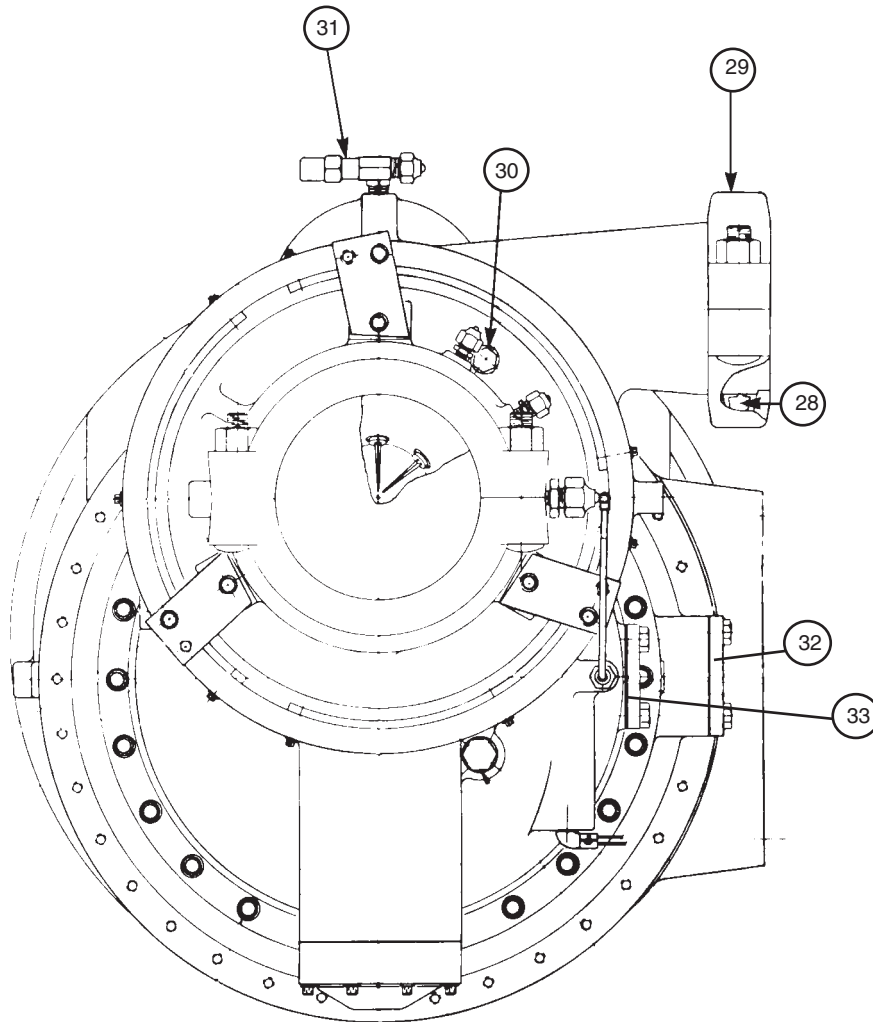
Ref #	Qty.	Description -----	Part Number
1	1	Impeller Bolt until 5/82 Original Spiral Shaft/Impeller-----	735036509*
		after 5/82 Tapered Shaft/Impeller -----	735036518*
2	1	Impeller Washer until 5/82 Original Spiral Shaft/Impeller-----	735036101*
		after 5/82 Tapered Shaft/Impeller -----	735236103*
	1	Impeller Sleeve until 5/82 Original Spiral Shaft/Impeller-----	735036201*
		after 5/82 Tapered Shaft/Impeller -----	Not Used
3	1	High Speed Shaft until 5/82 Original Spiral Shaft/Impeller-----	759525902*
		after 5/82 Tapered Shaft/Impeller -----	759908601*
4	1	Impeller Bearing -----	744022801
5	1	High Speed Bearing Housing -----	744142003
6	1	Front Pinion Bearing-----	735653501
7	1	Pinion Gear -----	see Gear Table
8	1	Nut -----	735236301
9	2	Pin-----	735038023
10	6	Screw-----	735036471
11	1	Rear Pinion Bearing-----	735235301

\*In May, 1982 the H.S. shaft and Impeller mounting were changed from a spiral mount to a conical mount. If a spiral impeller and/or high speed shaft are in need of replacement, the entire retrofit must be performed. See Gear Train Assy. for impeller part numbers.



# Compressor 1966-1984 (Engineering Revisions 0 & A)

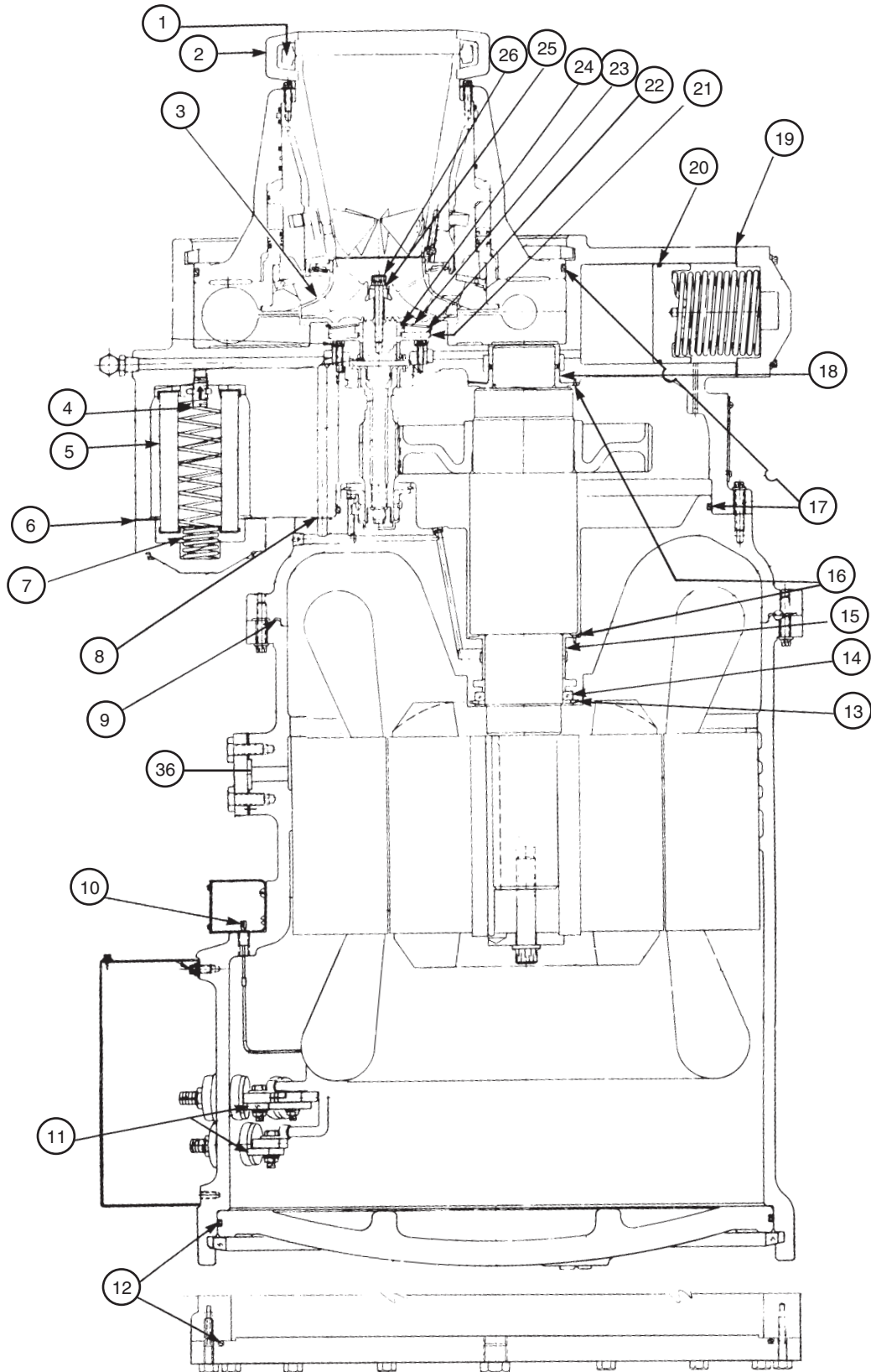
## End View/ Discharge Components



Ref #	Qty.	Description -----	Part Number
28	1	Discharge Victaulic Coupling Gasket- 5"-----	735013045
29	1	Discharge Victaulic Coupling - 5" -----	735049324
30	1	Dowel Pin -----	735068006
31	1	Valve- Oil Service -----	735039947
32	1	Gasket -----	070199002
33	1	Gasket -----	070199007



# Compressor 1966-1984 (Engineering Revisions 0 & A) Gear Train Assembly



# Compressor 1966-1984 (Engineering Revisions 0 & A)

## Gear Train Assembly, Continued

Ref #	Qty.	Description -----	Part No.
1	1	Victaulic Coupling- Suction 6" -----	070193905
2	1	Victaulic Gasket- Suction 6" -----	070194005
3	1	Impeller	
		063J -----	744411103*
		063K -----	744411101*
4	1	Check Valve- Oil Filter -----	735040308
5	1	Oil Filter -----	735006904
6	1	Gasket- Oil Filter -----	070199009
7	1	Spring- Oil Filter -----	735036918
8	1	O'Ring -----	735043619
9	1	O'Ring -----	735043626
10	2	Guardistor Terminal -----	735234401
11	6	Motor Terminal: Low Voltage -----	074608101
12	1	O'Ring- Motor End Cover -----	735043633
13	1	Retainer Ring -----	735049814
14	1	L.S. Seal- (Smooth Shafts) -----	735234312
		L.S. Seal (Threaded Shafts) -----	735236601
15	1	Bearing- L.S. Motor End -----	744024202
16	2	Screw -----	735034928
17	2	O'Ring -----	735043682
18	1	Bearing- L.S. Compressor End -----	744024102
19	1	Gasket- Piston -----	070199009
20	1	O'Ring -----	735043635
21	1	Seal Stop -----	735235001
22	1	Retaining Ring- Seal -----	735049811
23	1	Retainer- Seal -----	735234901
24	2	Seal- High Speed -----	735234802
25	1	Impeller Washer	
		until 5/82 Original Spiral Shaft/Impeller --	735036101*
		after 5/82 Taper Shaft/Impeller -----	735236103*
26	1	Impeller Bolt	
		until 5/82 Original Spiral Shaft/Impeller -	735036509*
		after 5/82 Taper Shaft/Impeller -----	735036518*
36	1	Gasket -----	070199011
NS	1	Heater- Gear Case -----	735041248
NS	1	Motor End Cover Sight Glass	
		Flat End Covers -----	070943401
		Round End Covers -----	735099013
NS	1	Surgeguard Probe -----	072900027
		Complete O'Ring Kit	
		Motor & Gear Housing -----	735099015

\*Note: The Impeller was changed in May, 1982 from a spiral mount to a taper mount. If a unit was built prior to this date, and the impeller is required, then the taper mount retrofit must be performed, and the high speed shaft, impeller bolt, and impeller washer must be changed as well. (See High Speed Assy. for bolt, washer and shaft part numbers).

# Compressor 1966-1984 (Engineering Revisions 0 & A)

## Motor Replacement and Retrofit

There are a few key points to remember when motor replacement is required:

1. The Stator (motor winding) is shrunk fit into the motor housing.
2. The Rev. 0, A & B CE063, unlike all other McQuay (and Westinghouse) centrifugal compressors has a slip fit Low Speed Shaft/Rotor. Therefore, you may reuse the Low Speed Shaft and the Rotor (if it is not damaged by the motor burnout) currently installed if a Stator needs replacement.

Motor Components Replacement Procedure for:

### Units with 599C107 style motors

**NOTE: the motor style number is ALWAYS printed on the compressor data plate.**

**If only the Stator needs to be replaced**, there are two scenarios:

First, if there is a local motor shop capable of removing the old Stator and shrinking the new one into the existing Housing, order the following:

1. The new Stator
2. The appropriate Motor End Cover O'Ring/Gasket
3. A new Low Speed Seal
4. Gear Train O'Ring Kit
5. Diode (installed in control box)
6. Guardistor Terminals
7. Motor Terminals
8. Locating/Locking Dowel
9. Plug

Second, if you are unable to have the new Stator installed, you still need to order the parts listed above. Upon placing the order, contact Daikin McQuay Parts for appropriate labor charges and instructions for sending the Motor Housing to a Daikin McQuay Authorized Repair Facility to have the new Stator installed.

### Units with 535F311 and 535F309 style motors

**NOTE: the motor style number is ALWAYS printed on the compressor data plate.**

For units built in the late 60's and early 70's using the original **535F311 or 595F309** style motors **a complete new motor must be ordered whether the stator or the rotor require replacement (you cannot mix or match old style rotors or stators).**

To select the proper replacement motor contact Daikin McQuay Parts. They will provide the new part number as well as the RLA, LRA, KW and other specs that will help you assess whether the starter is properly sized for the new motor (it is quite rare that the new motor is not compatible with the unit's original starter panel).

In addition to the new motor, the following parts must be ordered to handle the retrofit:

1. Diode pn: 735003404
2. Low Speed Seal pn: 735234312 (if the original Low Speed Gear/Shaft has threads on it use seal 735236601)
3. The appropriate Motor End Cover O'Ring/Gasket
4. Gear Train O'Ring Kit

Contact Daikin McQuay Parts for instructions and labor charges.

**IMPORTANT:** Please read all mandatory notes on [McQuayParts.com](http://McQuayParts.com) carefully.

# Compressor 1966-1984 (Engineering Revisions 0 & A) 440 Frame Motors

**NOTE: See "Compressor 1966-1984 (Eng. Rev. 0 & A)- Motor Replacement & Retrofit" page for information on replacing the Stator, Rotor and Shaft.**

Cyc.	Volts	Nom. HP-- Motor Style	Motor PN	Stator PN	Rotor PN
50	220	190 ----- 599C107G01	*	759910701	*
50	346	190 ----- 599C107G02	*	759910702	*
60	380	210 ----- 599C107G02	*	759910702	*
50	440	190 ----- 599C107G03	*	759910703	*
60	200/208	210 ----- 599C107G04	*	759910704	*
60	220/230/240	210 ----- 599C107G05	*	759910705	*
50	380/400/415	190 ----- 599C107G06	*	759910706	*
60	440/460/480	210 ----- 599C107G06	*	759910706	*
60	575	210 ----- 599C107G07	*	759910707	*
50	220	210 ----- 599C107G08	*	759910708	*
50	346	210 ----- 599C107G09	*	759910709	*
60	380	260 ----- 599C107G09	*	759910709	*
50	440	210 ----- 599C107G10	*	759910710	*
60	200/208	260 ----- 599C107G11	*	759910711	*
60	220/230/240	260 ----- 599C107G12	*	759910712	*
50	380/400/415	210 ----- 599C107G13	*	759910713	*
60	440/460/480	260 ----- 599C107G13	*	759910713	*
60	575	260 ----- 599C107G14	*	759910714	*
50	220	260 ----- 599C107G15	*	759910715	*
50	346	260 ----- 599C107G16	*	759910716	*
60	380	300 ----- 599C107G16	*	759910716	*
50	440	260 ----- 599C107G17	*	759910717	*
60	200/208	300 ----- 599C107G18	*	759910718	*
60	220/230/240	300 ----- 599C107G19	*	759910719	*
50	380/400/415	260 ----- 599C107G20	*	759910720	*
60	440/460/480	300 ----- 599C107G20	*	759910720	*
60	575	300 ----- 599C107G21	*	759910721	*
50	220	320 ----- 599C107G22	*	759910722	*
50	346	320 ----- 599C107G23	*	759910723	*
60	380	360 ----- 599C107G23	*	759910723	*
50	440	320 ----- 599C107G24	*	759910724	*
60	200/208	360 ----- 599C107G25	*	759910725	*
60	220/230/240	360 ----- 599C107G26	*	759910726	*
50	380/400/415	320 ----- 599C107G27	*	759910727	*
60	440/460/480	360 ----- 599C107G27	*	759910727	*
60	575	360 ----- 599C107G28	*	759910728	*

\* See "Compressor 1966-1984 (Eng. Rev. 0 & A)- Motor Replacement & Retrofit" page for information on replacing the Motor or Rotor.

**Original Rotor Part Numbers:**

Motor Style 599C107G01-07= 599C107H51  
 Motor Style 599C107G08-14= 599C107H52  
 Motor Style 599C107G15-21= 599C107H53  
 Motor Style 599C107G22-28= 599C107H54

# Compressor 1985-1996 (Engineering Revision B)

## Notes

The 2nd Generation (Engineering Revision B) CE063 compressor was used on units built between 1985 and early 1996. The compressor underwent a few major changes in that period. There were many changes from the original design and many parts are NOT interchangeable.

1. On August 1, 1988, a new Low Speed Gear/Shaft was introduced. It is not interchangeable with the previously used gear/shaft.
2. From 1985 until mid 1989 there were two different hydraulic pistons used depending on whether the unit had a "J" or a "K" impeller. In mid 1989 the units were redesigned and the "K" piston became standard.
3. In December, 1991 a new Low Speed Gear/Shaft was introduced. It is not interchangeable with the previously used gear/shaft.

# Compressor 1985-1996 (Engineering Revision B) Gears

## Pinions

Ref#	Qty.	Gear Code-----	Part No.
310	1	AG-----	759526365
		AH-----	759526351
		AJ-----	759526352
		AK-----	759526353
		AL-----	759526354
		AM-----	759526355
		AN-----	759526356
		AP-----	759526357
		AQ-----	759526358
		AR-----	759526359
		AS-----	759526360
		AT-----	759526361
		AU-----	759526362
		AV-----	759526363
		AW-----	759526364

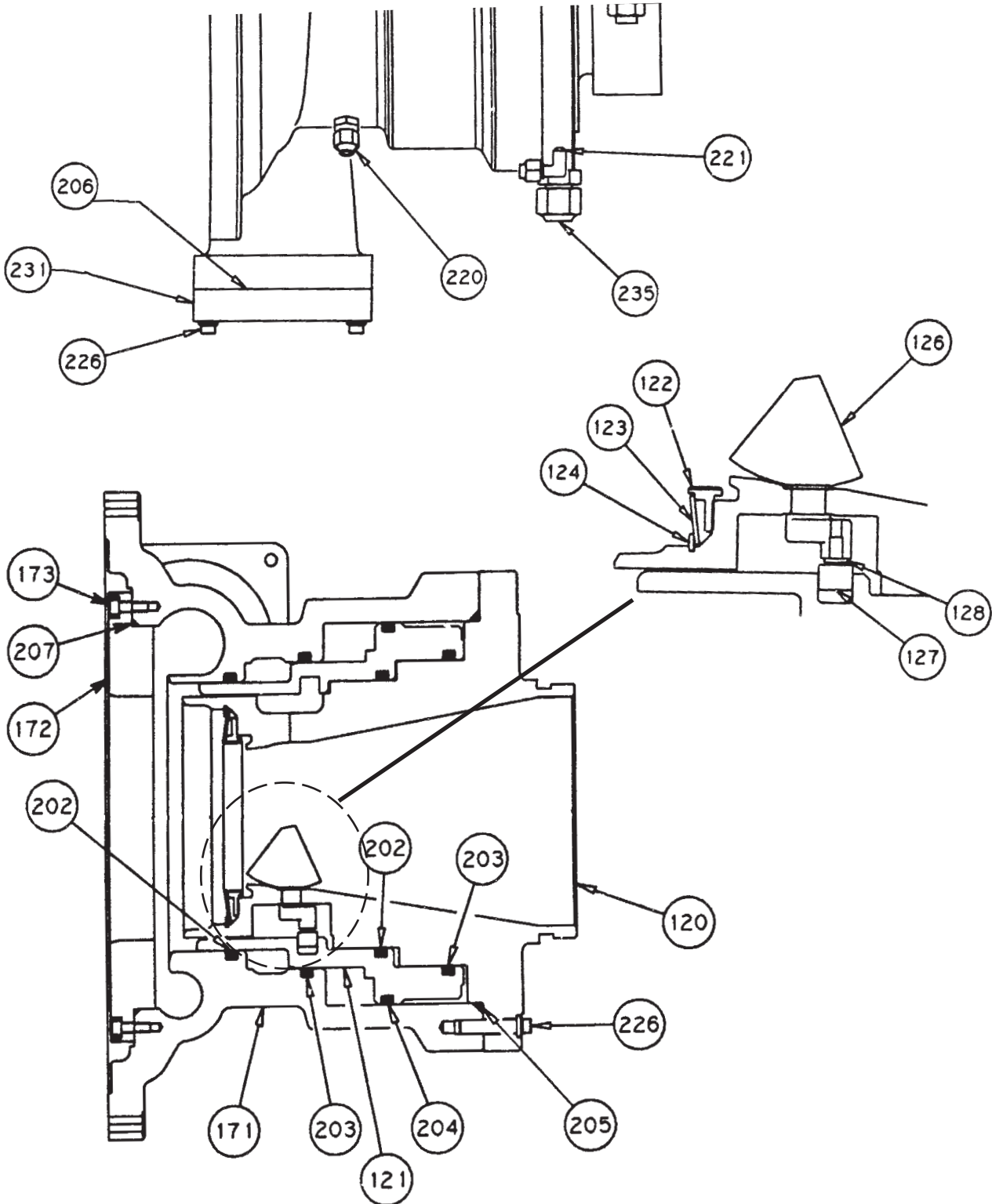
## Low Speed (Includes L.S. Shaft)

Ref#	Qty.	Gear Code-----	1/85-6/88*	7/88-11/91*	12/91-1996
305	1	AG-----	071640365	776124165	071418965
		AH-----	071640351	776124151	071418951
		AJ-----	071640352	776124152	071418952
		AK-----	071640353	776124153	071418953
		AL-----	071640354	776124154	071418954
		AM-----	071640355	776124155	071418955
		AN-----	071640356	776124156	071418956
		AP-----	071640357	776124157	071418957
		AQ-----	071640358	776124158	071418958
		AR-----	071640359	776124159	071418959
		AS-----	071640360	776124160	071418960
		AT-----	071640361	776124161	071418961
		AU-----	071640362	776124162	071418962
		AV-----	071640363	776124163	071418963
		AW-----	071640364	776124164	071418964

\*Note- 071556324 is a spacer kit that should always be ordered when a Low Speed Gear/Shaft is ordered for any unit built prior to 12/91. This kit includes spacers that may be required to insure that the new low speed shaft fits properly with the old rotor.

NOTE: If a unit was built in either of these two periods of time:  
 1. June or July of 1988  
 2. December of 1991  
 contact Daikin McQuay Parts to insure that the correct part is ordered.

# Compressor 1985-1996 (Engineering Revision B) Inlet Guide Vane Ass'y



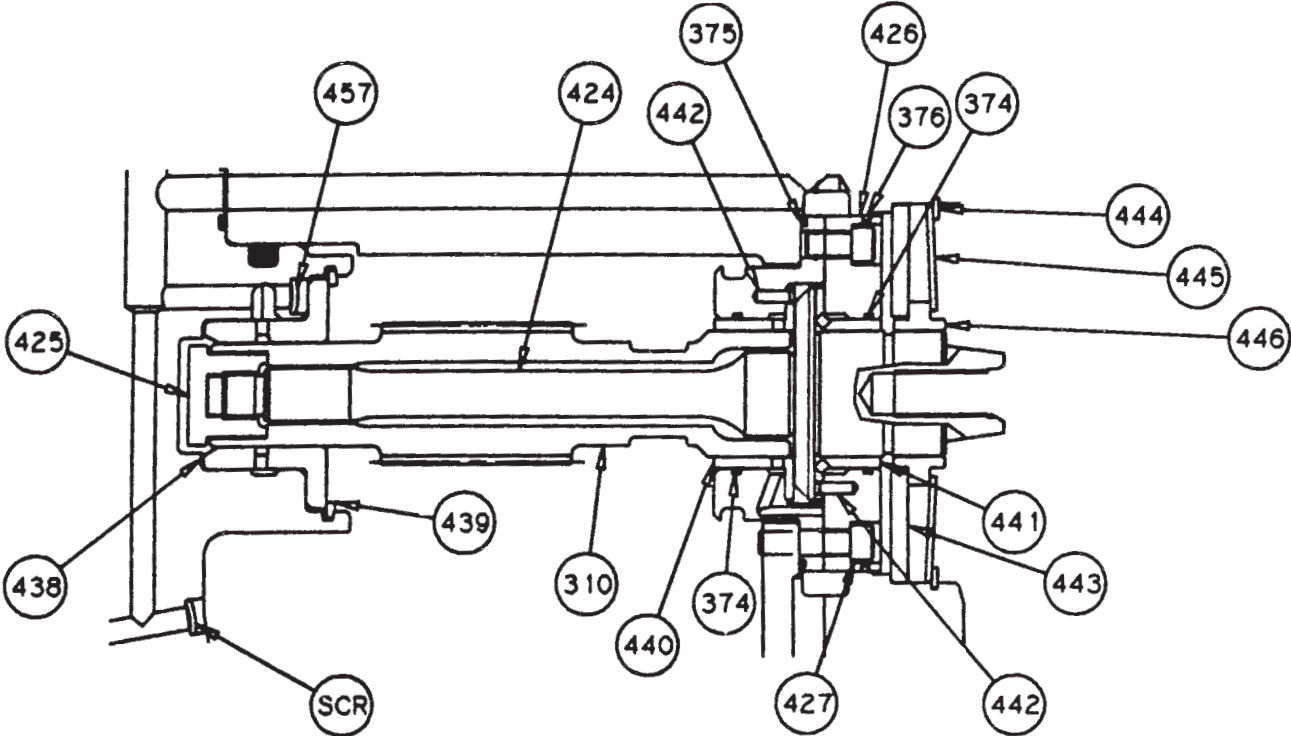
## Compressor 1985-1996 (Engineering Revision B) Inlet Guide Vane Ass'y, Continued

Ref #	Qty.	Description	Part Number
120	1	Inlet Cone	753550701
121	1	Piston	776427002**
122	1	Impeller Seal	775189901
123	1	Retainer Ring	735235701
124	1	Ring- Spirolox	735049812
126	7	Vane	776124503*
127	7	Bearing- IGV	735017201*
128	7	Washer- IGV	048164806*
	7	*Inlet Vane Ass'y (includes vane, bearing, washer)	735430801
171	1	Volute (Scroll)	753546901
172	1	Volute- Insert	070942401
173	6	Screw	735017314
202	2	O'Ring	735073630
203	2	O'Ring	735073617
204	1	O'Ring	735073619
205	1	O'Ring	735073627
206	1	O'Ring	735073621
207	1	O'Ring	735073618
		IGV Assembly O'Ring Kit	070142302
220	4	Tube	001276700
221	1	Elbow	001124300
226	14	Screw	735017346
231	1	Flange	735055292
235	1	Coupling	735044220

\*\*The Piston was originally designed differently depending on whether the unit used the "J" or the "K" impeller. The piston has now been consolidated to use the original "K" piston design for ALL applications.



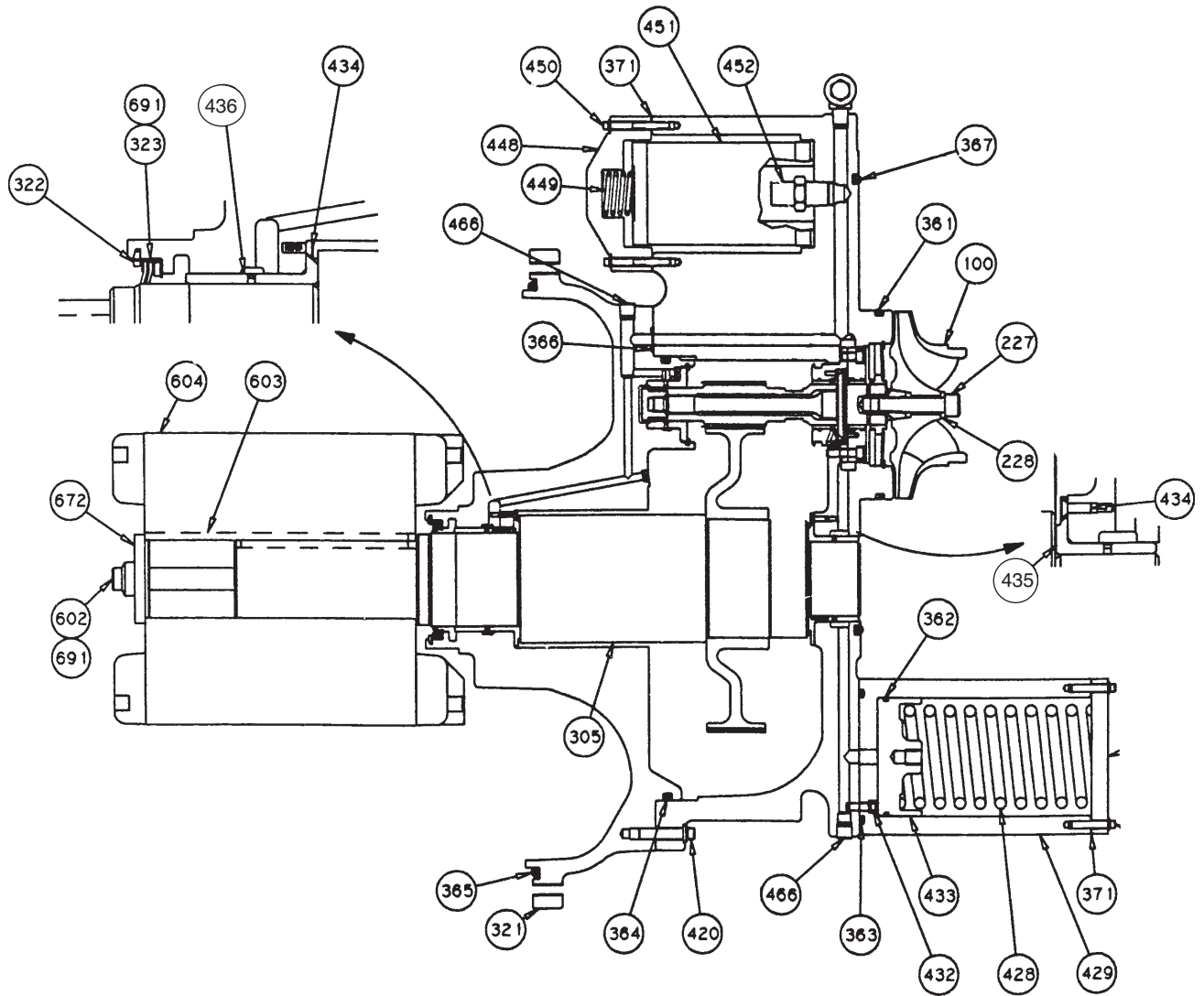
# Compressor 1985-1996 (Engineering Revision B) High Speed Assembly



## Compressor 1985-1996 (Engineering Revision B) High Speed Assembly, Continued

Ref #	Qty.	Description -----	Part Number
310	1	Pinion Gear-----	See Gear Table
374	2	O'Ring -----	735073642*
375	1	O'Ring -----	735073682*
376	1	O'Ring -----	735073683*
*Since 9/90. There were no O'Rings in this section prior to 9/90			
424	1	High Speed Shaft -----	759908601
425	1	Nut-----	735236301
426	1	High Speed Housing -----	744142003
	2	High Speed Housing Screw -----	735036471
	2	High Speed Housing Dowel-----	735038034
427	6	Screw -----	735017314
438	1	Bearing- Rear Pinion-----	735235301
439	1	Ring -----	735049813
440	1	Bearing- Front Pinion -----	735653501
441	1	Bearing- Impeller-----	744022801
442	2	Pin -----	735038023
443	1	Seal Stop -----	735235001
444	1	Ring -----	735049811
445	1	Retaining Ring-----	735234901
446	1	High Speed Shaft Seal -----	735234802
457	1	Expansion Disc-----	072288202
SCR	1	Set Screw -----	735036690

# Compressor 1985-1996 (Engineering Revision B) Gear Train



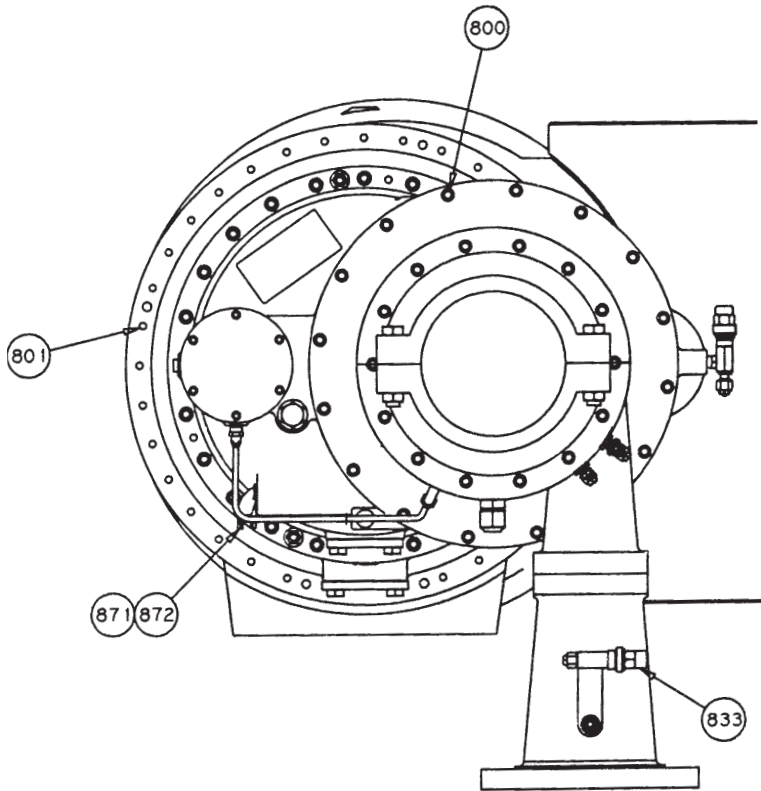
## Compressor 1985-1996 (Engineering Revision B) Gear Train, Continued

Ref #	Qty.	Description -----	Part Number
100	1	Impeller- J -----	776425001
		Impeller- K -----	776422301
227	1	Impeller Bolt-----	735036518
228	1	Impeller Washer -----	735236103
305	1	Low Speed Gear -----	See Gear Table
321	1	Bearing Housing -----	753550501
322	1	Ring- Low Speed Seal-----	735049814
323	1	Low Speed Seal-----	735234312
361	1	O'Ring -----	735073620
362	1	O'Ring -----	735043635
363	1	O'Ring -----	735073621
364	1	O'Ring -----	735043682
365	1	O'Ring -----	735043626
366	1	O'Ring -----	735043619
367	1	O'Ring -----	735073626
371	2	Gasket- Oil Filter -----	070199009
420	20	Screw -----	735017347
428	1	Spring-----	735036924
429	1	Oil Cylinder -----	759915901
432	6	Screw -----	735017314
433	1	Piston- Spin Down -----	744024802
434	2	Screw -----	735034928
435	1	Bearing- L.S. Front -----	744024102
436	1	Bearing- L.S. Rear -----	744024202
448	1	Filter Cover -----	744024302
449	1	Spring-----	735036918
450	6	Screw -----	735017320
451	1	Oil Filter -----	735006904
452	1	Check Valve -----	735040308
466	3	Pipe Plug-----	049760902
602	1	Screw- Motor-----	See L.S. Shaft Key/Screw Table
603	1	Motor- Shaft Key -----	See L.S. Shaft Key/Screw Table
604	1	Motor-----	See Motor Pages
672	1	End Cap-----	071580801
691	1	Pipe Plug (High Voltage Motors Only) ----	049760901
N/S	1	Surgeguard Probe -----	735085304
		O'Ring Kit- Gear Train -----	070142301

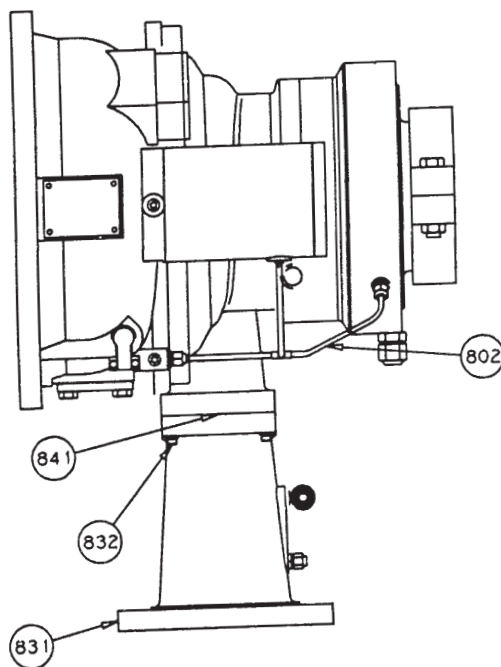
N/S = Not Shown.

# Compressor 1985-1996 (Engineering Revision B)

## External Parts



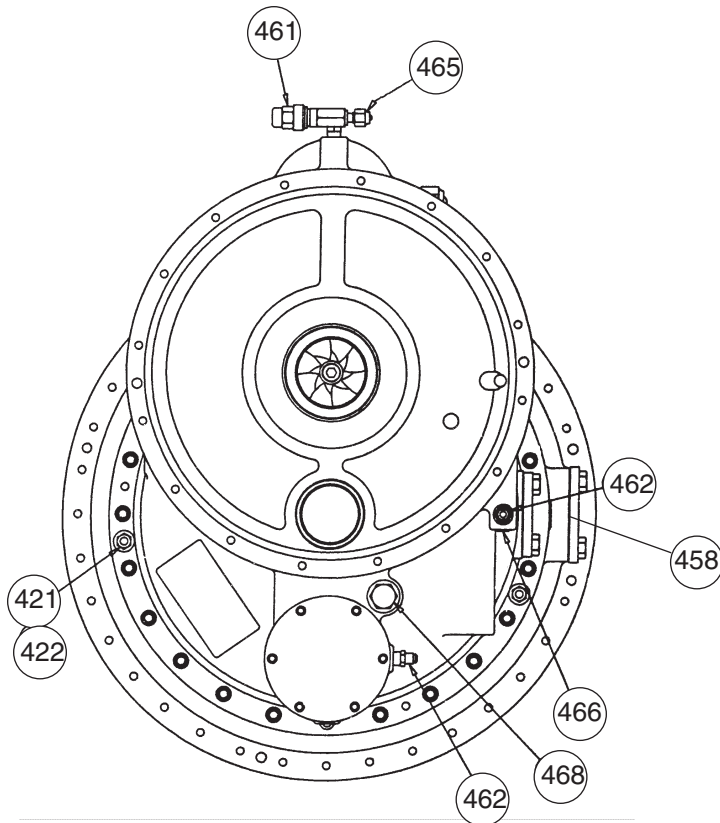
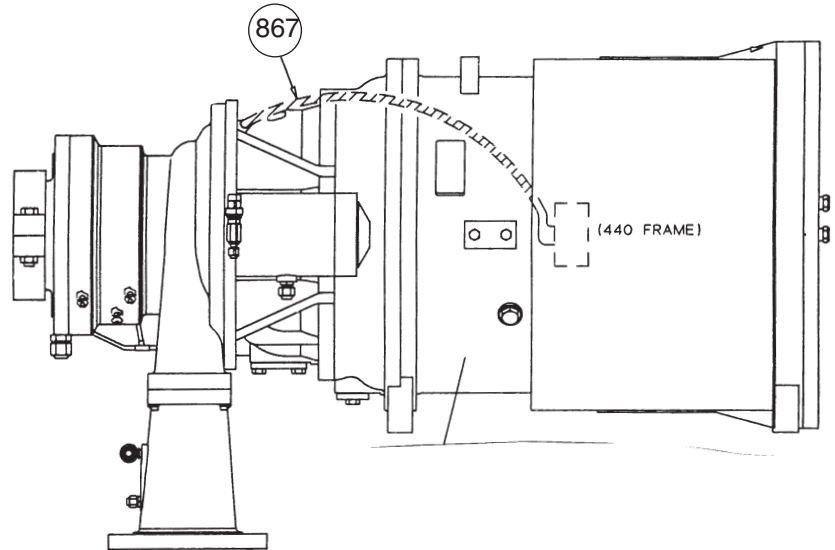
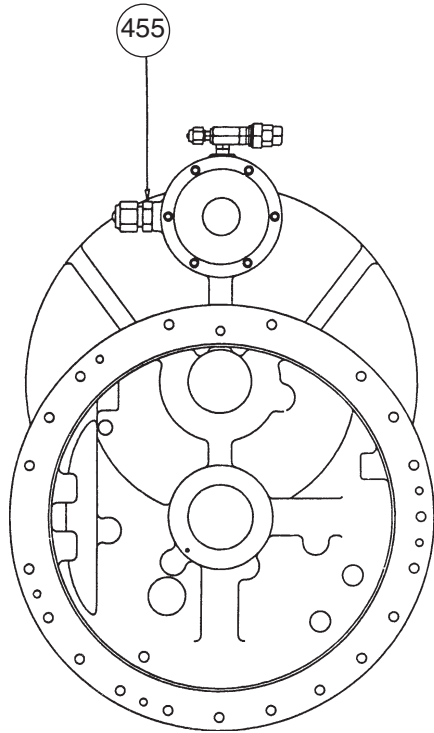
Ref #	Qty.	Description	Part No.
800	15	Screw	735017346
801	36	Screw	735017347
833	1	Shut Off Valve	735039947
871	1	Fitting	000916900
872	1	Heater	735041248



Ref #	Qty.	Description	Part No.
802	1	Drain Line Ass'y	744456501
831	1	Discharge Nozzle	759915801
832	4	Screw	735017347
841	1	O'Ring - Disch. Flange	735073621

# Compressor 1985-1996 (Engineering Revision B)

## External Parts, Continued

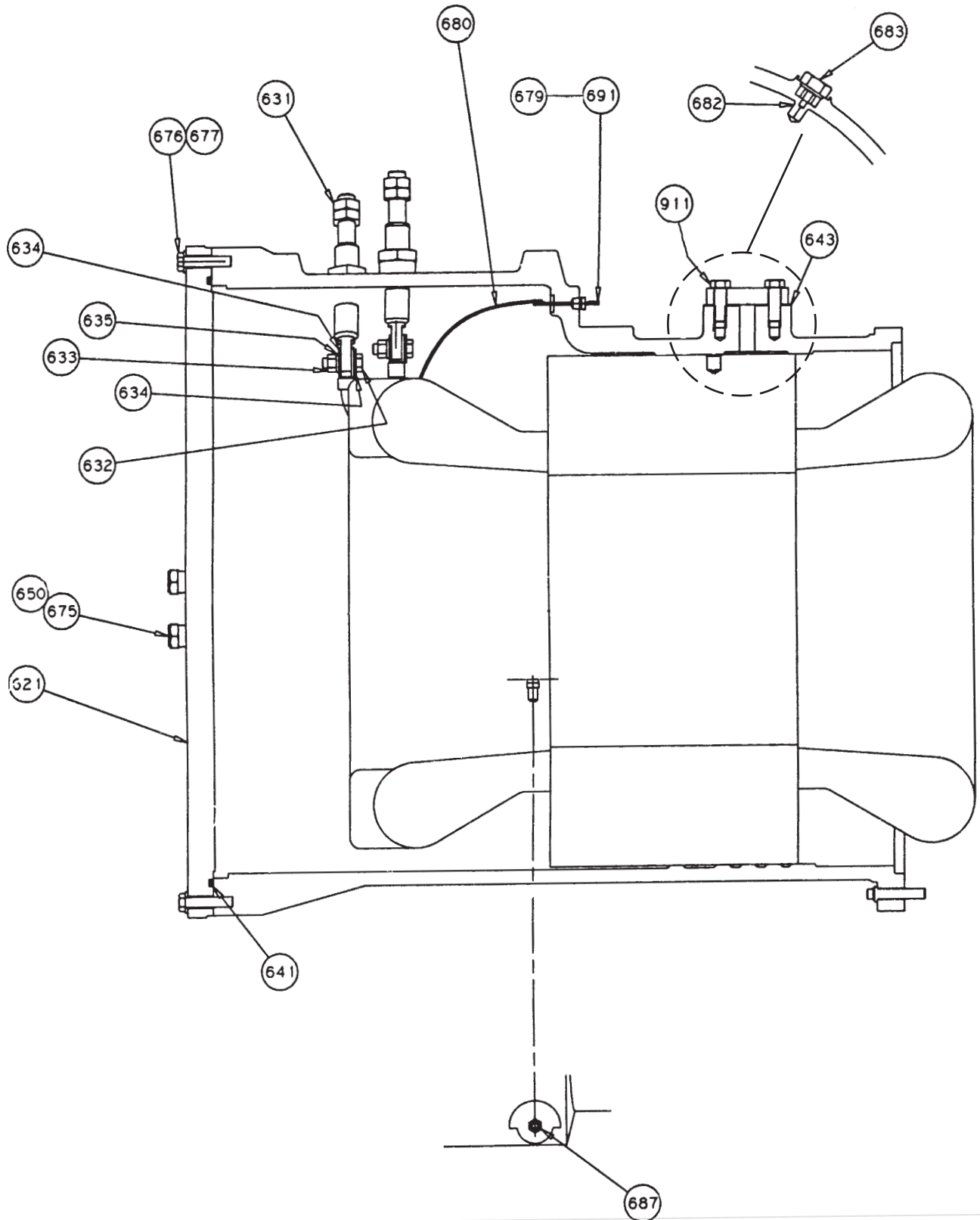


Ref #	Qty.	Description-----	Part No.
421	2	Dowel Pin-----	735376501
422	2	Nut-----	040499906
455	1	Coupling -----	735044218
458	1	Flange -----	735236701
461	1	Shut Off Valve -----	735039947
462	2	Coupling -----	735044204
465	1	Seal Cap -----	001106100
466	3	Pipe Plug -----	049760902
468	1	Plug / O'ring-----	735017101
867	1	Cable Ass'y-----	070829906

# Compressor 1985-1996 (Engineering Revision B)

## Motor Housing Ass'y

### Diagram



# Compressor 1985-1996 (Engineering Revision B)

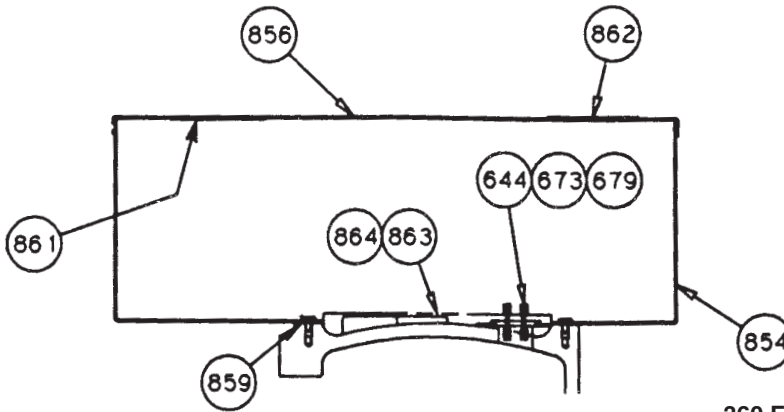
## Motor Housing Ass'y Components

Ref #	Qty.	Description -----	Part Number
N/S	1	Motor Housing	
		440 Frame Motor -----	765038906
		360 Frame Motor -----	753551001
621	1	Motor End Cover	
		440 Frame Motor -----	744406201
		360 Frame Motor -----	070677801
631	6	Motor Terminal- Low Voltage (to 575 Volts)-----	074608101
		Motor Terminal- Medium Voltage-----	074612002
	3	Motor Terminal- High Voltage (over 600 Volts)----	074614001
632	6	Screw- Low Voltage Units Only-----	735033233
633	6	Nut- Low Voltage Units Only -----	040499906
634	12	Washer- Low Voltage Units Only-----	040500316
635	6	Lock Washer- Low Voltage Units Only-----	048164812
641	1	Motor End Cover O'Ring	
		440 Frame Motor -----	735043633
		360 Frame Motor -----	735043638
643	1	Gasket -----	070199011
650	2	O'Ring -----	735073634
675	2	Sight Glass- Motor End Cover-----	015997816
676	16	Screw -----	735033435
677	16	Lock Washer -----	048164812
679		Guardister Terminal	
	2	440 Frame Motor -----	735234401
	1	360 Frame Motor -----	070260801
680	3	Cable Tie-----	001358000
682	1	Dowel Pin -----	735068004
683	1	Plug/O'Ring- 360 Frame Motor Only-----	735017101
687	1	Tube- 440 Frame Motor -----	001276700
	1	Union- 360 Frame Motor -----	735044229
691	2	Pipe Plug- High Voltage Unit Only-----	049760901
911	2	Screw -----	735017345



# Compressor 1985-1996 (Engineering Revision B)

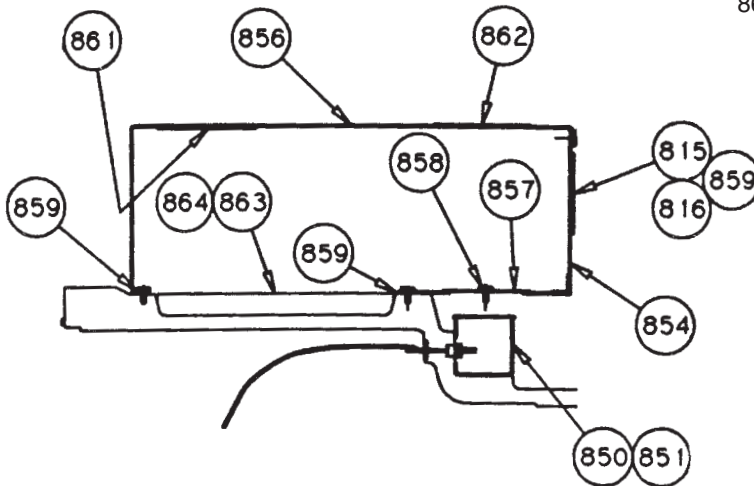
## Terminal Box Ass'y



**360 Frame Motors**

**360 Frame Motors**

Ref #	Qty.	Description	Part No.
644	1	O'Ring	735073635
673	4	Screw	735036445
679	1	Terminal	070260801
854	1	Terminal Box Ass'y	070533202
856	1	Terminal Box Cover	070533301
859	7.5ft.	Gasket- Neoprene	070199201
861	1	Label- Connection	735982101
862	1	Label- Copper Wire	072922801
863		Adhesive- Insulation	000986000
864	1.5ft.	Insulation	047662050



**440 Frame Motors**

**440 Frame Motors**

Ref #	Qty.	Description	Part No.
815	1	Dataplate	071583501
816	4	Dataplate Rivet	735034707
850	2	Electrical Box Cover	000127300
851	2	Electrical Box	020329100
854	1	Terminal Box Ass'y	744147102
856	1	Terminal Box Cover	071633101
857	1	Inner Cover	735432701
858	13	Screw	735032742
859	7.5ft.	Gasket- Neoprene	070199201
861	1	Label- Connection	735982101
862	1	Label- Copper Wire	072922801
863		Adhesive- Insulation	000986000
864	1.5ft.	Insulation	047662050
N/S		H.V. Terminal Insulation Kit	775123601

# Compressor 1985-1996 (Engineering Revision B)

## Low Speed Shaft Key/Screw Table

### Ref# 602 Low Speed Shaft Screw\*

Qty.	Motor Style Numbers -----	Part Number
1	759910704-07/599C107G04-G07-----	735034936
	759910708-14/599C107G08-G14-----	735036524
	759910716-21/599C107G16-G21-----	735034931
	759910727/599C107G27-----	735034950

### Ref# 603 Low Speed Shaft Key\*

Qty.	Motor Style Numbers -----	Part Number
1	759910704-07/599C107G04-G07-----	735049936
	759910708-14/599C107G08-G14-----	735049937
	759910716-21/599C107G16-G21-----	735049956
	759910727/599C107G27-----	735049957
	070482601-07/704826CG01-CG07-----	735049959
	070482608-14/704826CG08-CG14-----	735049960
	070482615-21/704826CG15-CG21-----	735049961
	All 0731001XX Motors-----	735049961

\* For locations, see diagram for Compressor 1985-1966 (Rev. B) Gear Train.

# Compressor 1985-1996 (Engineering Revision B)

## Motor Replacement and Retrofit

There are a few key points to remember when motor replacement is required:

1. The Stator (motor winding) is shrunk fit into the motor housing.
2. The Rev. 0, A & B CE063, unlike all other McQuay centrifugal compressors has a slip fit Low Speed Shaft/Rotor. Therefore, you may reuse the Low Speed Shaft and the Rotor (if it is not damaged by the motor burnout) currently installed if a Stator needs replacement.

Motor Components Replacement Procedure for:

### Units with 599C107 or 704826CG style motors

**NOTE: the motor style number is ALWAYS printed on the compressor data plate.**

**If only the Stator needs to be replaced**, there are two scenarios:

First, if there is a local motor shop capable of removing the old Stator and shrinking the new one into the existing Housing, order the following:

1. The new Stator
2. The appropriate Motor End Cover O'Ring/Gasket
3. A new Low Speed Seal
4. Gear Train O'Ring Kit
5. Diode (installed in control box)
6. Guardistor Terminals
7. Motor Terminals
8. Locating/Locking Dowel
9. Plug

Second, if you are unable to have the new Stator installed, you still need to order the parts listed above. Upon placing the order, contact Daikin McQuay Parts for appropriate labor charges and instructions for sending the Motor Housing to a Daikin McQuay Authorized Repair Facility to have the new Stator installed.

**IMPORTANT:** Please read all mandatory notes on [McQuayParts.com](http://McQuayParts.com) carefully.

# Compressor 1985-1996 (Engineering Revision B)

## 440 Frame Motors- Low Voltage

**NOTE: See "Compressor 1985-1996 (Eng. Rev. B) - Motor Replacement & Retrofit" page for information on replacing the Stator, Rotor and Shaft.**

Cyc.	Volts	Nom. HP--	Motor Style	Motor PN	Stator PN	Rotor PN
50	220	190	----- 599C107G01	*	759910701	*
50	346	190	----- 599C107G02	*	759910702	*
60	380	210	----- 599C107G02	*	759910702	*
50	440	190	----- 599C107G03	*	759910703	*
60	200/208	210	----- 599C107G04	*	759910704	*
60	220/230/240	210	----- 599C107G05	*	759910705	*
50	380/400/415	190	----- 599C107G06	*	759910706	*
60	440/460/480	210	----- 599C107G06	*	759910706	*
60	575	210	----- 599C107G07	*	759910707	*
50	220	210	----- 599C107G08	*	759910708	*
50	346	210	----- 599C107G09	*	759910709	*
60	380	260	----- 599C107G09	*	759910709	*
50	440	210	----- 599C107G10	*	759910710	*
60	200/208	260	----- 599C107G11	*	759910711	*
60	220/230/240	260	----- 599C107G12	*	759910712	*
50	380/400/415	210	----- 599C107G13	*	759910713	*
60	440/460/480	260	----- 599C107G13	*	759910713	*
60	575	260	----- 599C107G14	*	759910714	*
50	220	260	----- 599C107G15	*	759910715	*
50	346	260	----- 599C107G16	*	759910716	*
60	380	300	----- 599C107G16	*	759910716	*
50	440	260	----- 599C107G17	*	759910717	*
60	200/208	300	----- 599C107G18	*	759910718	*
60	220/230/240	300	----- 599C107G19	*	759910719	*
50	380/400/415	260	----- 599C107G20	*	759910720	*
60	440/460/480	300	----- 599C107G20	*	759910720	*
60	575	300	----- 599C107G21	*	759910721	*
50	220	320	----- 599C107G22	*	759910722	*
50	346	320	----- 599C107G23	*	759910723	*
60	380	360	----- 599C107G23	*	759910723	*
50	440	320	----- 599C107G24	*	759910724	*
60	200/208	360	----- 599C107G25	*	759910725	*
60	220/230/240	360	----- 599C107G26	*	759910726	*
50	380/400/415	320	----- 599C107G27	*	759910727	*
60	440/460/480	360	----- 599C107G27	*	759910727	*
60	575	360	----- 599C107G28	*	759910728	*

\* See "Compressor 1966-1984 (Eng. Rev. 0 & A)- Motor Replacement & Retrofit" page for information on replacing the Motor or Rotor.

**Original Rotor Part Numbers:**

Motor Style 599C107G01-07= 599C107H51  
 Motor Style 599C107G08-14= 599C107H52  
 Motor Style 599C107G15-21= 599C107H53  
 Motor Style 599C107G22-28= 599C107H54

# Compressor 1985-1996 (Engineering Revision B)

## 440 Frame Motors- High Voltage

**NOTE: See "Compressor 1985-1996 (Eng. Rev. B)- Motor Replacement & Retrofit" page for information on replacing the Stator, Rotor and Shaft.**

Cyc.	Volts	Nom. HP--	Motor Style-Old	Motor PN-New	Stator PN	Rotor PN
50	220	190	----- 599C167G01	073100101	759916701	073096654
50	346	190	----- 599C167G02	073100102	759916702	073096654
60	380	210	----- 599C167G06	073100106	759916706	073096654
50	440	190	----- 599C167G07	073100162	759916707	073096654

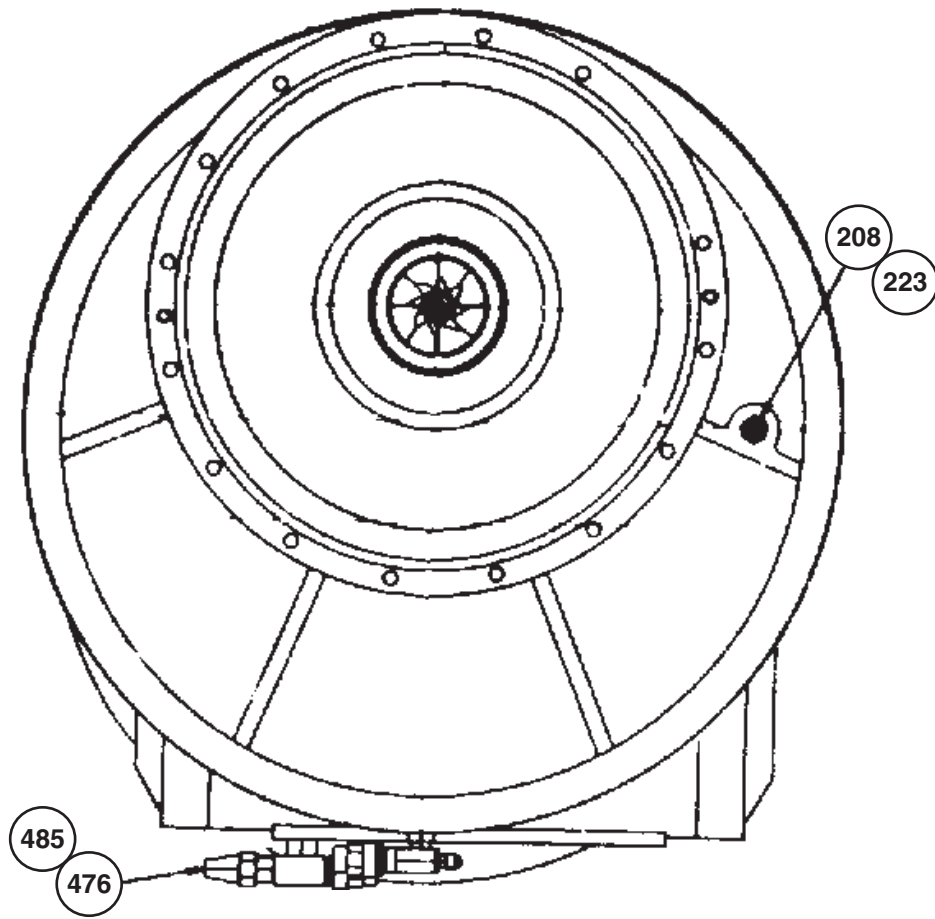
### 360 Frame Motors

Cyc.	Volts	Nom. HP--	Stator PN	Rotor PN
50	220	160	----- 070482601	071298101
50	346	160	----- 070482602	071298101
60	380	180	----- 070482602	071298101
50	440	160	----- 070482603	071298101
60	208/200	180	----- 070482604	071298101
60	220/230/240	180	----- 070482605	071298101
50	380/400/415	160	----- 070482606	071298101
60	440/460/480	180	----- 070482606	071298101
60	575	180	----- 070482607	071298101
50	220	180	----- 070482608	071298102
50	346	180	----- 070482609	071298102
60	380	230	----- 070482609	071298102
50	440	180	----- 070482610	071298102
60	208/200	230	----- 070482611	071298102
60	220/230/240	230	----- 070482612	071298102
50	380/400/415	180	----- 070482613	071298102
60	440/460/480	230	----- 070482613	071298102
60	575	230	----- 070482614	071298102
50	220	230	----- 070482615	071298103
50	346	230	----- 070482616	071298103
60	380	290	----- 070482616	071298103
50	440	230	----- 070482617	071298103
60	208/200	290	----- 070482618	071298103
60	220/230/240	290	----- 070482619	071298103
50	380/400/415	230	----- 070482620	071298103
60	440/460/480	290	----- 070482620	071298103
60	575	290	----- 070482621	071298103

# Compressor 1996- Present (Engineering Revisions C & D) Notes

**NOTES:** The 3rd Generation (Engineering Revision C) CE063 compressor is used on units built from early 1996 until late 1998. The 4th generation (Engineering Revision D) CE063 compressor is used on units built in late 1998 to the present. The components are the same for both versions except where noted (the motors are completely different).

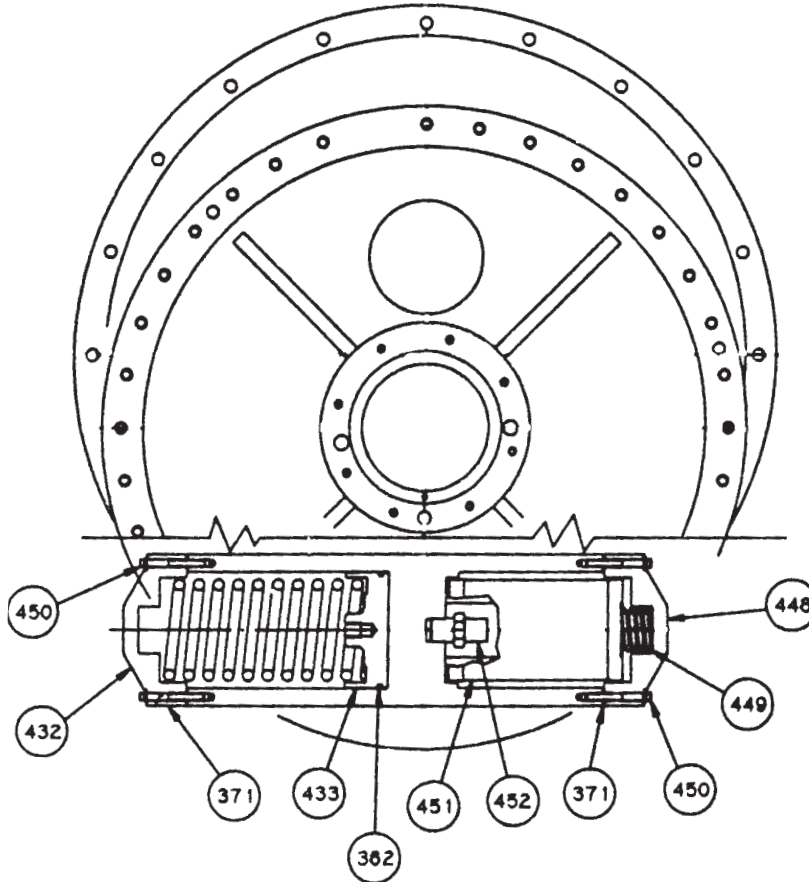
# Compressor 1996- Present (Engineering Revisions C & D) Front End View



Ref #	Qty.	Description -----	Part No.
208	1	O'Ring-----	735073639 <sup>1</sup>
223	2	Fitting -----	735043930
476	1	Shut Off Valve-----	735039929
485	1	Flare Cap -----	073243901

<sup>1</sup> Included in Gear Housing O'Ring Kit 300049233.

# Compressor 1996- Present (Engineering Revisions C & D) Oil Filter Section

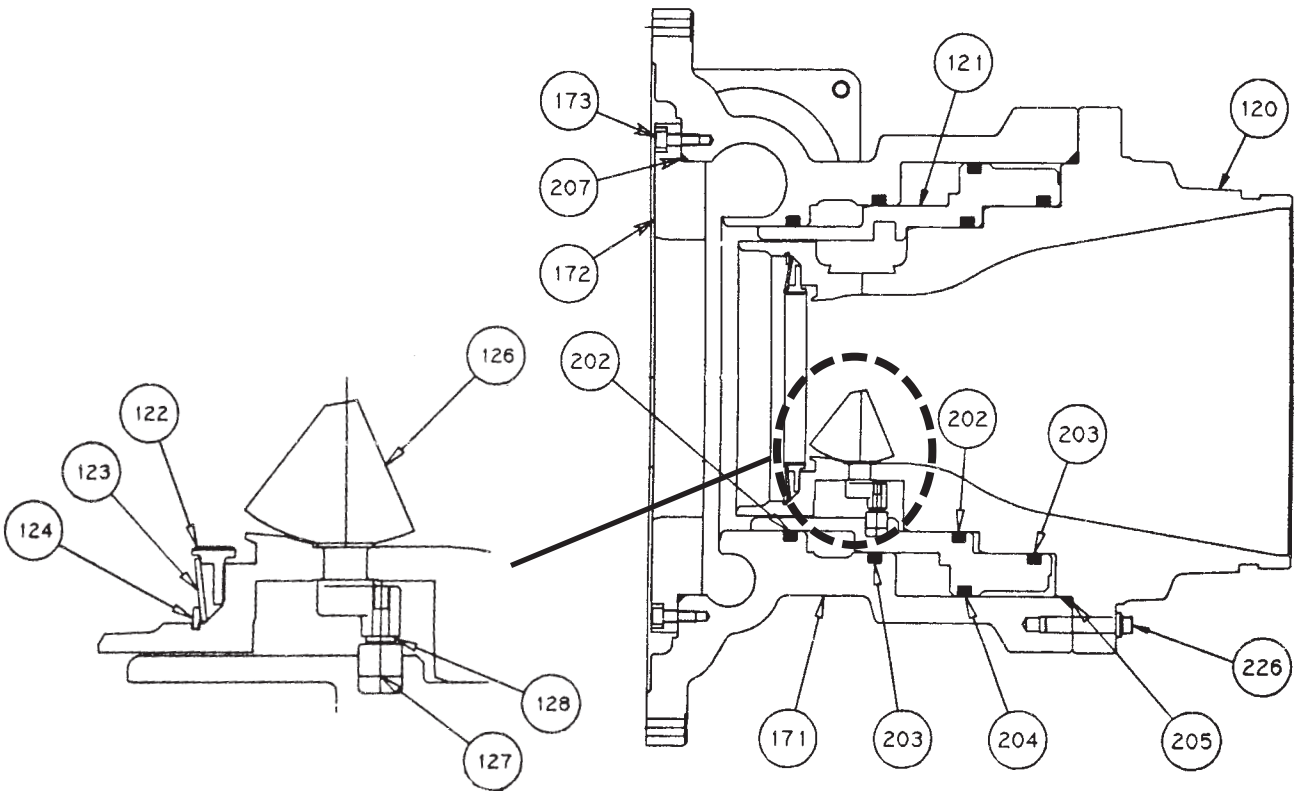
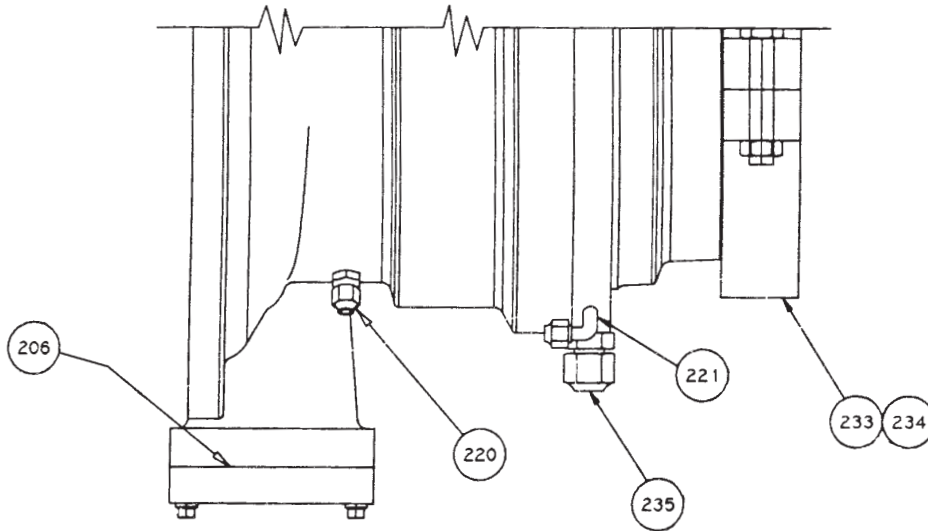


Ref #	Qty.	Description -----	Part No.
362	1	O'Ring-----	735043635 <sup>1</sup>
371	2	Gasket- Oil Filter -----	070199009 <sup>1</sup>
432	1	Filter Cover -----	744024302
433	1	Spin Down Piston -----	744024802
448	1	Filter Cover -----	744024302
449	1	Spring -----	735036918
450	6	Screw -----	735017320
451	1	Oil Filter -----	735006904
452	1	Check Valve -----	735040335

<sup>1</sup> Included in Gear Housing O'Ring Kit 300049233.



# Compressor 1996- Present (Engineering Revisions C & D) Inlet Guide Vane Assembly Diagrams



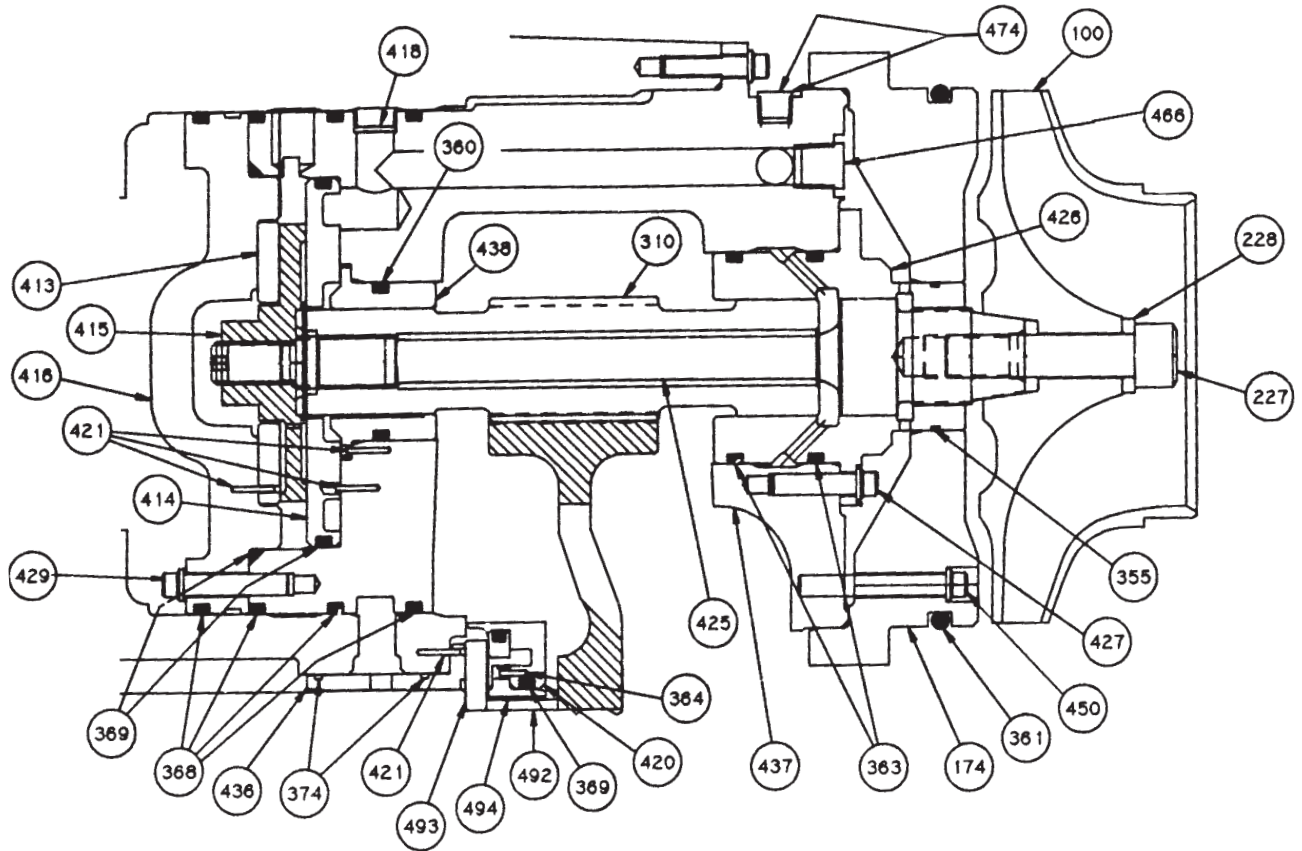
# Compressor 1996- Present (Engineering Revisions C & D) Inlet Guide Vane Assembly Components

Ref #	Qty.	Description -----	Part No.
120	1	Inlet Cone-----	074136802
N/S	2	Alignment Dowel- Inlet Cone -----	735038036
121	1	Piston -----	776427002
122	1	Seal- Impeller (used on J, K & M) -----	775189901
123	1	Retaining Ring-----	735235701
124	1	Spirolox Ring-----	735049812
126	7	Vane-----	776124503*
127	7	Bearing- IGV -----	735017201*
128	7	Washer- IGV -----	048164806*
	7	*Inlet Vane Ass'y (includes vane, bearing, washer) -----	735430801
171	1	Volute Rev. C Compressor -----	753546901
		Rev. D Comp. w/Liquid Injection -----	753546901
		Rev. D Comp. w/o Liquid Injection-----	753546903
172**	1	Volute Insert-----	070942401
173**	6	Screw -----	735017314
202	2	O'Ring- Discharge-----	735073630 <sup>1</sup>
203	2	O'Ring -----	735073617 <sup>1</sup>
204	1	O'Ring -----	735073619 <sup>1</sup>
205	1	O'Ring -----	735073627 <sup>1</sup>
206	1	O'Ring -----	735073621 <sup>1</sup>
207**	1	O'Ring -----	735073618 <sup>1</sup>
220	3	Tube (until 1/98)-----	001276700
	3	Fitting (1/98 and later) -----	735043930
221	1	Elbow (until 1/98) -----	001124300
	1	Fitting (1/98 and later) -----	735043930
226	14	Screw -----	735017346
233	1	Suction Coupling- 8" -----	070193906
		Suction Gasket- 8"-----	070194006
234	1	Victaulic Cap (Tool)-----	735055223
235	1	Coupling-----	735044213

\*\*Used only on compressors with no liquid injection (Liquid Injection applies only to Rev. D compressors, it was not an option on units with Rev. C compressors).

<sup>1</sup> Included in Front End O'Ring Kit 300049232.

# Compressor 1996- Present (Engineering Revisions C & D) High Speed Assembly Diagram



# Compressor 1996- Present

## (Engineering Revisions C & D)

### 2 Piece High Speed Assembly, Components

Ref #	Qty.	Description -----	Part No.
100	1	Impeller- J-----	776425001
		Impeller- K-----	776422301
		Impeller- M-----	074370102
174	1	Rear Diffuser- no L.I. (C06=Y)-----	070438601
		Rear Diffuser- with L.I. (C06=L) ----	074577801
227	1	Impeller Bolt-----	735036518
228	1	Impeller Washer-----	735236103
310	1	Pinion Gear-----	See Gear Table
355	1	O'Ring -----	735073642 <sup>1</sup>
360	1	O'Ring -----	735073607 <sup>1</sup>
361	1	O'Ring- no L.I. (C06=Y) -----	735073620 <sup>2</sup>
		O'Ring- with L.I. (C06=L)-----	735043623 <sup>2</sup>
363	2	O'Ring -----	735073657 <sup>1</sup>
364	1	O'Ring -----	735073658 <sup>3</sup>
368	4	O'Ring -----	735043673 <sup>1</sup>
369	3	O'Ring -----	735043640 <sup>3</sup>
374	4	O'Ring -----	735043650 <sup>3</sup>
413	1	Thrust- High Speed- Rev. C Comp.-	070704401
		Thrust- High Speed- Rev. D Comp.-	070776901
414	1	Thrust Plate -----	074530501
415	1	Thrust Pump -----	071878102
416	1	Thrust Cover- Rev. C Comp. -----	070477501
		Thrust Cover- Rev. D Comp. -----	074763401
418	1	Expansion Disc-----	072288201
420	2	Pin -----	735038023
421	2	Screw -----	735036536
425	1	Shaft- High Speed-----	071798003
		Shaft- High Speed ("M" only) -----	071798002
426	1	Bearing- High Speed: Front -----	070691201
427	15	Screw -----	735017316
429	4	Screw -----	735017317
436	1	Low Speed Bearing- Gear End-----	070477601
437	1	Gear Housing -----	070551401
438	1	Bearing- High Speed: Rear-----	070703501
450	6	Screw -----	735017320
466	5	Pipe Plug-----	049760902
474	2	Pipe Plug-----	049760901
492	1	Lee Plug-----	735078306
493	1	Thrust Plate- Low Speed-----	070282201
494	1	Thrust Bearing- Low Speed -----	071381401

<sup>1</sup> Included in High Speed Assy O'Ring Kit 300049234.

<sup>2</sup> Included in Front End O'Ring Kit 300049232.

<sup>3</sup> Included in Gear Housing O'Ring Kit 300049233.

# Compressor 1996- Present (Engineering Revisions C & D) Gears

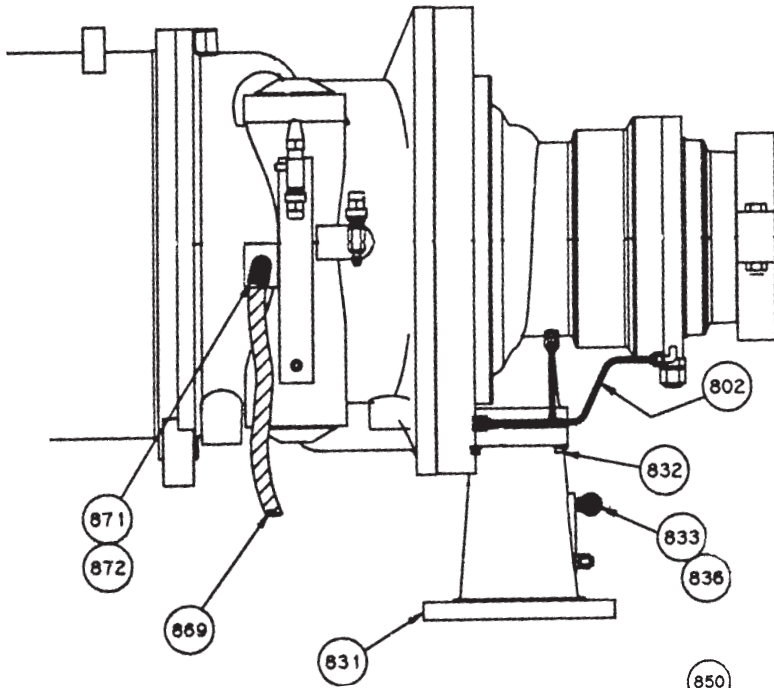
## Pinions

Ref#	Qty.	Gear Code-----	Part No.
310	1	AC-----	071797801
		AD-----	071797802
		AE-----	071797803
		AF-----	071797804
		AG-----	071797805
		AH-----	071797806
		AJ-----	071797807
		AK-----	071797808
		AL-----	071797809
		AM-----	071797810
		AN-----	071797811
		AP-----	071797812
		AQ-----	071797813
		AR-----	071797814
		AS-----	071797815
		AT-----	071797816
		AU-----	071797817
		AV-----	071797818
		AW-----	071797819

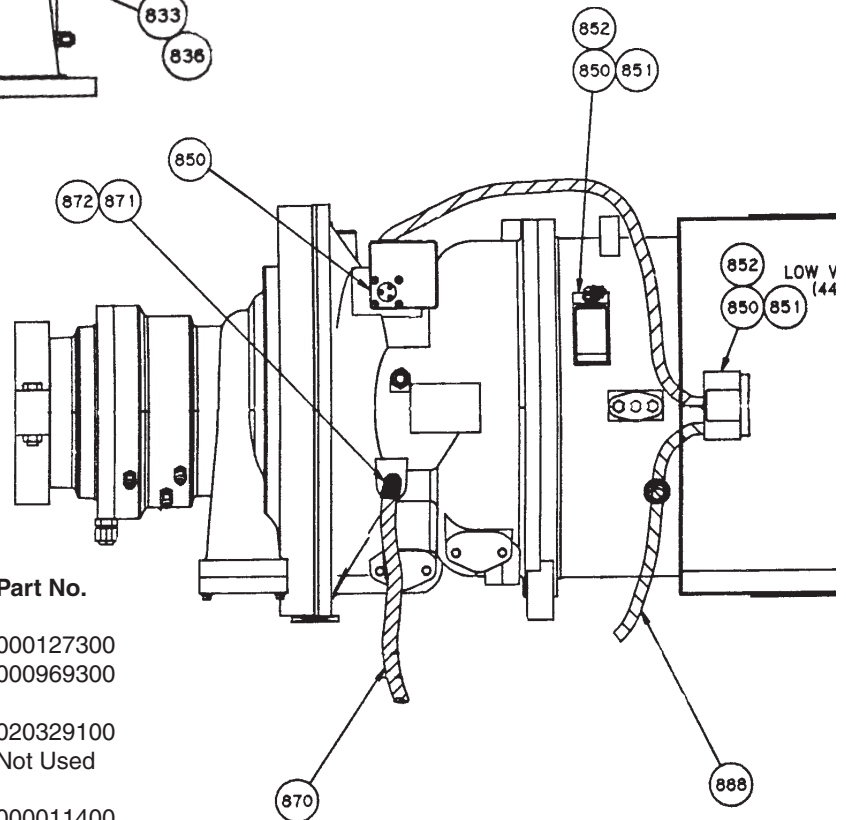
## Low Speed

Ref#	Qty.	Gear Code-----	Part No.
305	1	AC-----	071797701
		AD-----	071797702
		AE-----	071797703
		AF-----	071797704
		AG-----	071797705
		AH-----	071797706
		AJ-----	071797707
		AK-----	071797708
		AL-----	071797709
		AM-----	071797710
		AN-----	071797711
		AP-----	071797712
		AQ-----	071797713
		AR-----	071797714
		AS-----	071797715
		AT-----	071797716
		AU-----	071797717
		AV-----	071797718
		AW-----	071797719

# Compressor 1996- Present (Engineering Revisions C & D) External Parts



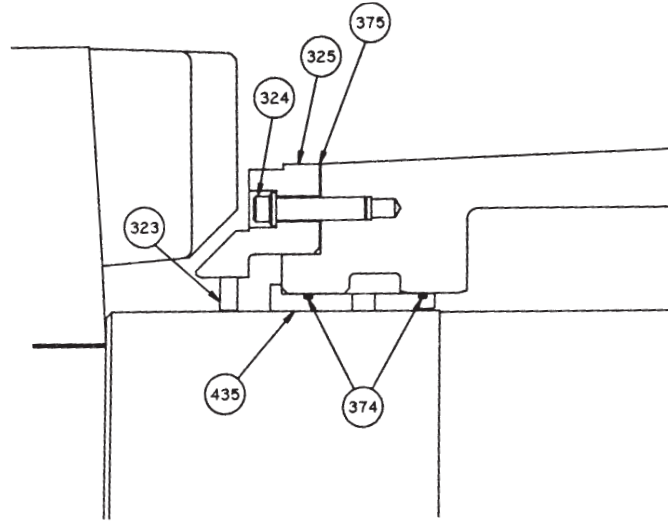
Ref #	Qty.	Description	Part No.
802	1	Drain Line Ass'y	
		Up Discharge	073071211
		Down Discharge	074840101
		22.5° Discharge	074615901
831	1	Discharge Nozzle	759915801
832	4	Screw	735017347
833	1	Shut Off Valve	735039947
836	1	Seal Cap	001106100
869	1	Cable	070829905
871	2	Heater- Crank Case	735041248
872	2	Connector- Heater	000916900



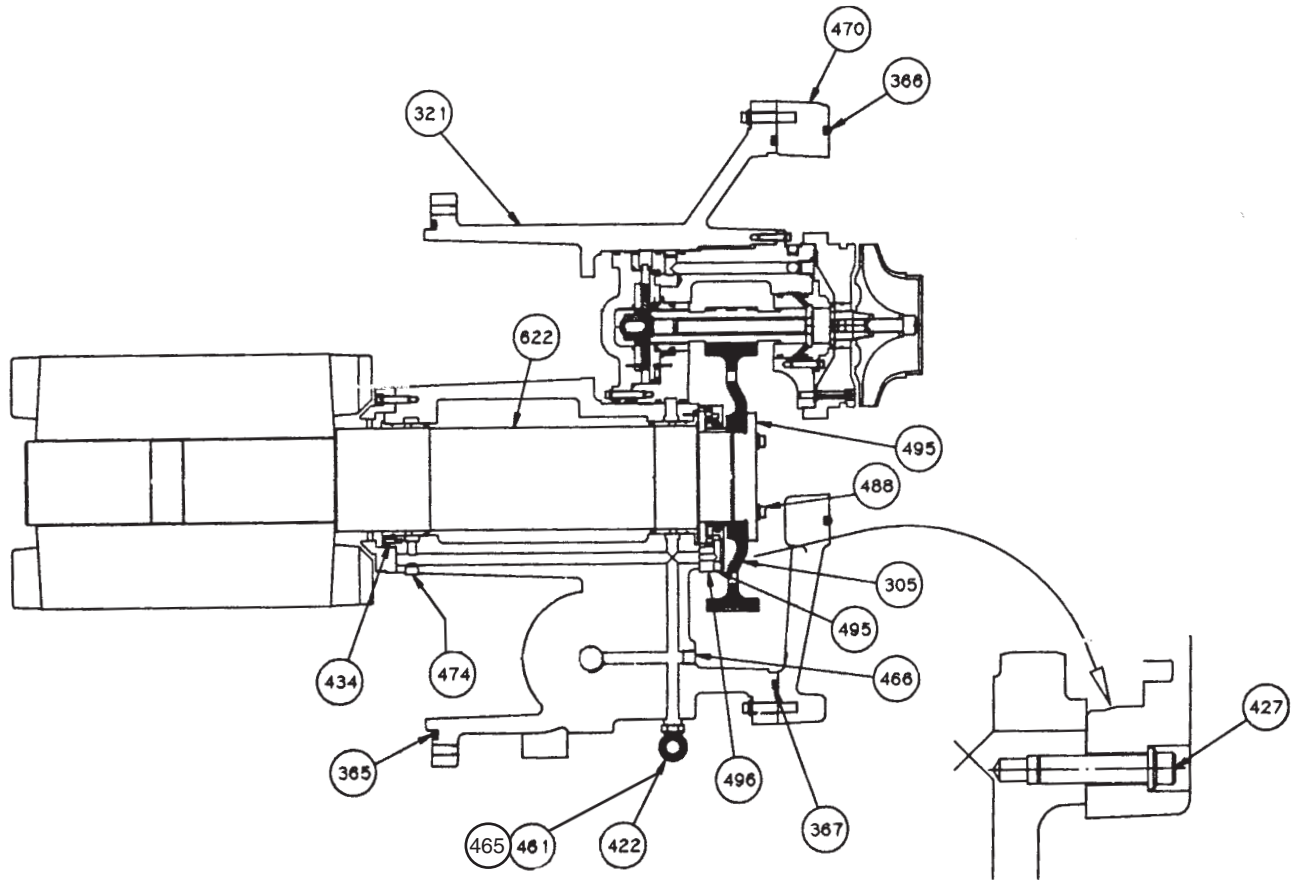
Ref #	Qty.	Description	Part No.
850*	1	Electrical Box Cover	
		440 Frame Motor	000127300
		360 Frame Motor	000969300
851*	1	Electrical Box	
		440 Frame Motor	020329100
		360 Frame Motor	Not Used
852*	2	Screw	
		440 Frame Motor	000011400
		360 Frame Motor	Not Used
870	1	Cable	070829904
871	2	Heater- Crank Case	735041248
872	2	Connector- Heater	000916900
888	1	Cable	070829959

\*Rev. C Compressor Only

# Compressor 1996- Present (Engineering Revisions C & D) Gear Train Diagrams



Low Speed Seal and Motor End Bearing Detail



**Compressor 1996- Present  
(Engineering Revisions C & D)  
Gear Train  
Components**

<b>Ref #</b>	<b>Qty.</b>	<b>Description -----</b>	<b>Part No.</b>
305	1	Low Speed (Bull) Gear -----	See Gear Table
321	1	Bearing Housing	
		Rev. C Compressor -----	070551003
		Rev. D Comp. 15" Motor	070551003
		Rev. D Comp. 20" Motor	070643302
323	1	Seal- Low Speed-----	735234313
324	8	Screw- Low Speed Seal ----	
		Revision C Compressor-	735017316
		Revision D Compressor-	735017314
325	1	Cover- Low Speed Seal-----	759911301
365	1	O'Ring	
		Rev. C Compressor -----	735043626 <sup>1</sup>
		Rev. D Comp. 15" Motor	735043626 <sup>1</sup>
		Rev. D Comp. 20" Motor	735073648 <sup>1</sup>
366	1	O'Ring -----	735073626 <sup>2</sup>
367	1	O'Ring- Bearing Support----	735073648 <sup>1</sup>
374	4	O'Ring -----	735043650 <sup>1</sup>
375	1	Cover Gasket -----	071294601 <sup>1</sup>
422	1	Bushing-----	735031462
427	15	Screw -----	735017316
434	1	Screw -----	735034928
435	1	Bearing- L.S.: Motor End ---	070477701
461	1	Shut Off Valve -----	735039947
465	1	Fitting, Tube Cap-----	001106100
466	5	Pipe Plug-----	049760902
470	1	Adapter Plate -----	071854001
474	2	Pipe Plug-----	049760901
488	6	Screw -----	735017347
495	1	Plate- Gear Lock -----	744022101
496	1	Thrust Cover -----	071882801
622	1	Low Speed Shaft- Revision C Compressor	
		440 Frame Motor -----	759784305
		360 Frame Motor -----	759784304

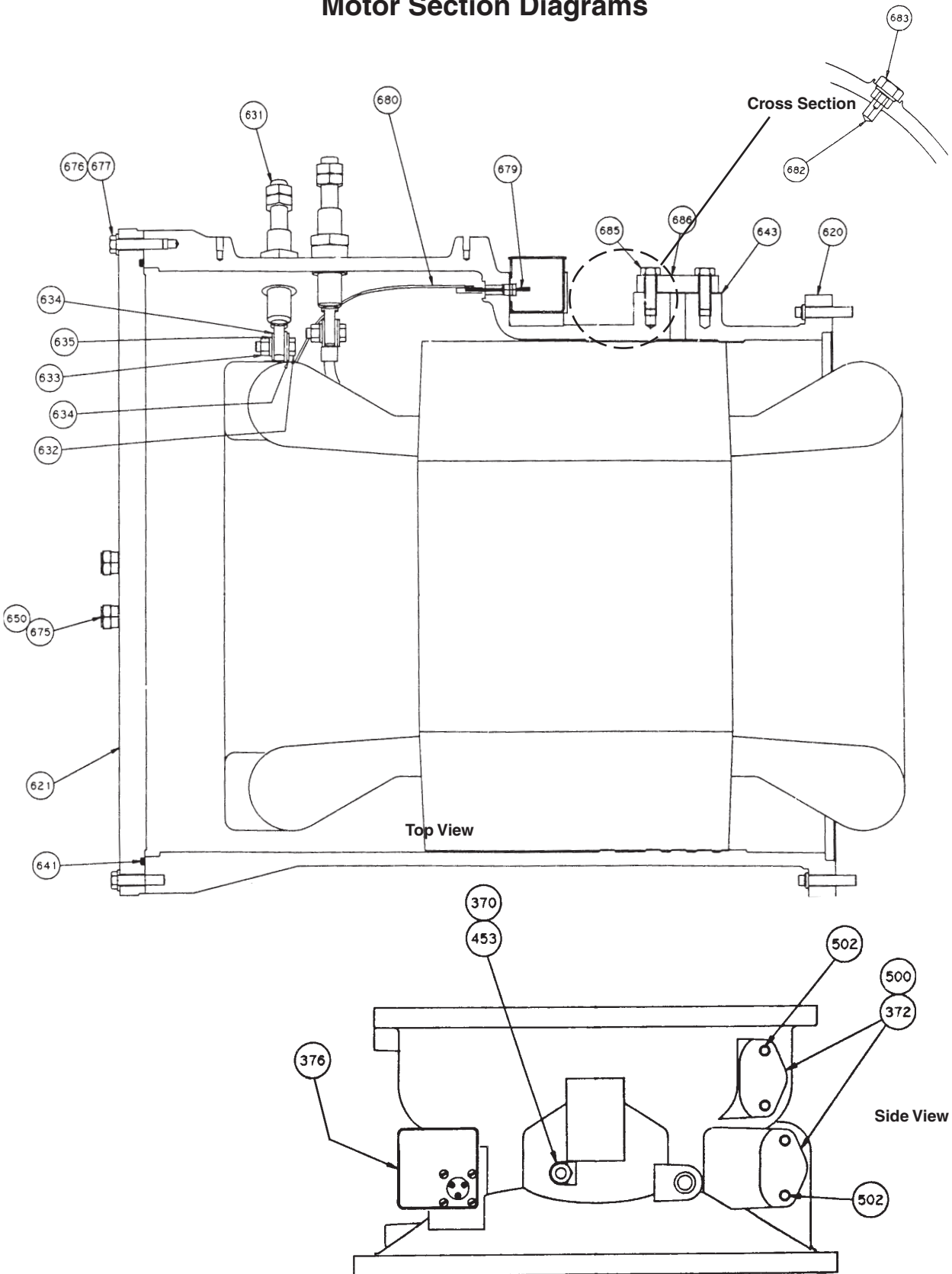
**Note- The Low Speed Shaft for the Revision D Compressor is listed on the motor pages (the Low Speed Shaft and Rotor are listed as an assembly).**

<sup>1</sup> Included in Gear Housing O'Ring Kit 300049233.

<sup>2</sup> Included in Front End O'Ring Kit 300049232.



# Compressor 1996- Present (Engineering Revisions C & D) Motor Section Diagrams



# Compressor 1996-1998 (Engineering Revision C) Motor Section Components

Ref #	Qty.	Description	Part Number
370	1	O'Ring	735073640 <sup>1,2</sup>
372	2	O'Ring	735073629 <sup>3</sup>
376	1	O'Ring	735073635 <sup>1,2</sup>
453	1	Union- Until 6/97	735044231
		Union- 7/97 and Later	735043934
500	2	Block Off (Tool)	070220401
502	4	Screw	735033847
620	1	Motor Housing	
		440 Frame Motor	765038906
		360 Frame Motor	753551001
621	1	Motor End Cover	
		440 Frame Motor	744406201
		360 Frame Motor	070677801
631	6	Motor Terminal- Low Voltage (to 575 Volts)	
		Pipe Thread	074608101
		SAE O'Ring	074608102
	3	Motor Terminal - High Voltage (600 Volts and Higher)	
		Pipe Thread	074612001
		SAE O'Ring	074612002
632	6	Screw- Low Voltage Units Only	735033233
633	6	Nut- Low Voltage Units Only	040499906
634	12	Washer- Low Voltage Units Only	040500316
635	6	Lock Washer- Low Voltage Units Only	048164812
641	1	Motor End Cover O'Ring	
		440 Frame Motor	735043633 <sup>2</sup>
		360 Frame Motor	735043638 <sup>1</sup>
643	1	Gasket	070199011 <sup>1,2</sup>
650	2	O'Ring	735073634 <sup>1,2</sup>
675	2	Sight Glass- Motor End Cover	015997816
676	16	Screw	735033435
677	16	Lock Washer	048164812
679		Guardister Terminal	
	2	440 Frame Motor	735234401
	1	360 Frame Motor (until 7/98)	070260801
	1	360 Frame Motor (7/98 and later)	070260802
680	3	Cable Tie	001358000
682	1	Dowel Pin	735068004
683	1	Plug/O'Ring- 360 Frame Motor Only	735017101
685	2	Screw	735017345
686	1	Flange	735055221

<sup>1</sup> Included in 15" Motor O'Ring Kit 300049235.

<sup>2</sup> Included in 20" Motor O'Ring Kit 300049236.

<sup>3</sup> Included in Gear Housing O'Ring Kit 300049233.

# Compressor 1998 to Present (Engineering Revision D) Motor Section, Components

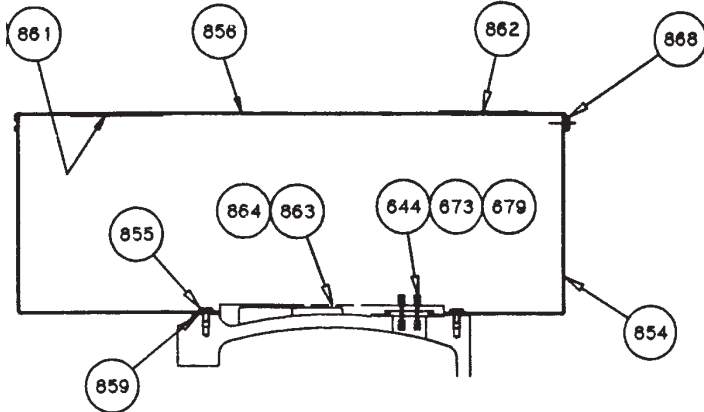
Ref #	Qty.	Description -----	Part Number
370	1	O'Ring-----	735073640 <sup>1,2</sup>
372	2	O'Ring-----	735073629 <sup>3</sup>
376	1	O'Ring-----	735073635 <sup>1,2</sup>
453	1	Union-----	735043934
500	2	Block Off (Tool) -----	070220401
502	4	Screw-----	735033847
620	1	Motor Housing	
		15" Motor -----	074891702
		20" Motor -----	070643402
621	1	Motor End Cover	
		15" Motor -----	070677801
		20" Motor -----	074542101
631	6	Motor Terminal- Low Voltage (to 575 Volts)	
		Pipe Thread -----	074608101
		SAE O'Ring -----	074608102
	6	Motor Terminal - Medium Voltage (600-5000 Volts)	
		Pipe Thread -----	074612001
		SAE O'Ring -----	074612002
	6	Motor Terminal- High Voltage (6000V and up) -----	074614001
N/S	1	Bus Bar- High Voltage Motor Terminals -----	074608301
632	6	Screw- Low Voltage Units Only -----	735033233
633	6	Nut- Low Voltage Units Only-----	040499906
634	12	Washer- Low Voltage Units Only -----	040500316
635	6	Lock Washer- Low Voltage Units Only -----	048164812
641	1	Motor End Cover O'Ring	
		15" Motor -----	735043638 <sup>1</sup>
		20" Motor -----	070194954 <sup>2</sup>
643	1	Gasket- 15" Motor-----	070199011 <sup>1</sup>
		Orifice Assy- 20" Motor -----	074601902
650	2	O'Ring-----	735073634 <sup>1,2</sup>
675	2	Sight Glass- Motor End Cover -----	015997816
676	16	Screw- 15" Motor-----	735033435
	36	Screw- 20" Motor-----	735033834
677	16	Lock Washer- 15" Motor-----	048164812
	36	Lock Washer- 20" Motor-----	048164812
679		Guardister Terminal	
	1	15" Motor -----	070260802
	1	20" Motor -----	070260801
680	3	Cable Tie -----	001358000
682	1	Dowel Pin -----	735068004
683	1	Plug/O'Ring- 360 Frame Motor Only -----	735017101
685	2	Screw-----	735017345
686	1	Flange-----	735055221
N/S	3	Brass Weight- .5 -----	070224601
N/S	2	Brass Weight- .25 -----	070224603

<sup>1</sup> Included in 15" Motor O'Ring Kit 300049235.

<sup>2</sup> Included in 20" Motor O'Ring Kit 300049237.

<sup>3</sup> Included in Gear Housing O'Ring Kit 300049233.

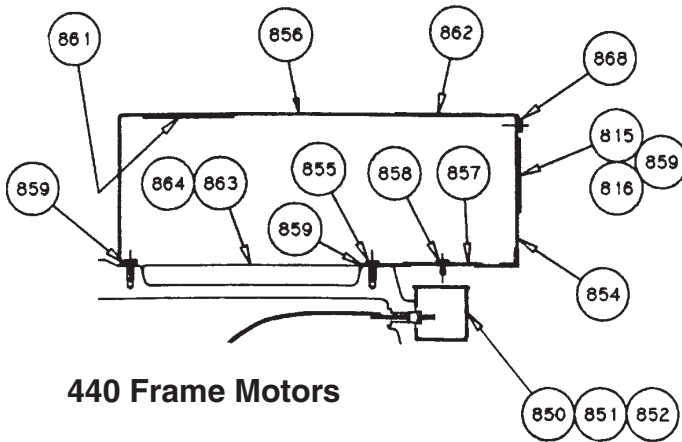
# Compressor 1996 to 1998 (Engineering Revision C) Terminal Boxes



**360 Frame Motors**

**360 Frame Motors**

Ref #	Qty.	Description	Part No.
644	1	O'Ring	735073635
673	4	Screw	735036445
679	1	Terminal	070260801
854	1	Terminal Box Ass'y	070533202
856	1	Terminal Box Cover	070533301
855	5	Screw	046093807
859	7.5ft.	Gasket- Neoprene	070199201
861	1	Label- Connection	735982101
862	1	Label- Copper Wire	072922801
863		Adhesive- Insulation	000986000
864	1.5ft.	Insulation	047662050
868	9	Screw	735032843

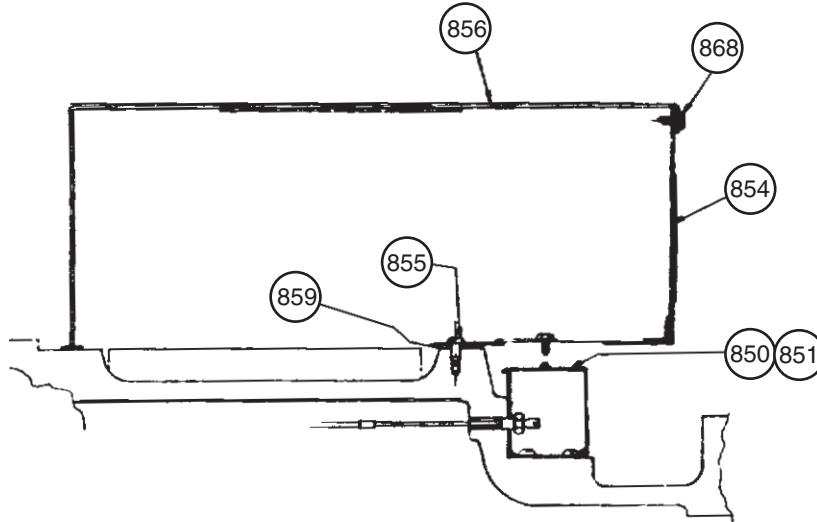


**440 Frame Motors**

**440 Frame Motors**

Ref #	Qty.	Description	Part No.
815	1	Dataplate	071583501
816	4	Dataplate Rivet	735034707
850	2	Electrical Box Cover	000127300
851	2	Electrical Box	020329100
852	2	Screw	000011400
854	1	Terminal Box Ass'y	744147102
855	5	Screw	046093807
856	1	Terminal Box Cover	071633101
857	1	Inner Cover	735432701
858	2	Screw	735032742
859	7.5ft.	Gasket- Neoprene	070199201
861	1	Label- Connection	
		L.V.	735982101
		H.V.	736017101
862	1	Label- Copper Wire	072922801
863		Adhesive- Insulation	000986000
864	1.5ft.	Insulation	047662050
868	9	Screw	735032843
N/S		H.V. Terminal	
		Insulation Kit	775123601

# Compressor 1998 to Present (Engineering Revision D) Terminal Box



Ref #	Qty.	Description	Part Number
850	2	Electrical Cover	000127300
851	2	Electrical Box	070688301
854	1	Terminal Box Assembly	
		15" Motor	070533202
		20" Motor	074556001
855		Screw	
	6	15" Motor	046093807
	6	20" Motor	040499038
856		Cover- Terminal Box	
	1	15" Motor	070533301
	1	20" Motor	073169201
859	8 ft.	Neoprene Gasket	070199201
868		Screw	
	12	15" Motor	735032843
	6	20" Motor	735032856

# Compressor 1996- Present (Engineering Revision C & D) Motor Replacement and Retrofit

**There are a few key points to remember when motor replacement is required:**

1. The Stator (motor winding) is shrunk fit into the motor housing.
2. The Rotor and Low Speed Shaft are assembled with a shrink fit.

Motor Components Replacement Procedure:

**The Motor Style Number is ALWAYS printed on the Compressor data plate.**

Note: The Stator and Rotor **must** be ordered as separate parts. It is crucial to note that the replacement of either of these parts involves a shrink fit. The Stator is shrunk fit into the Motor Housing and must be installed by a local motor shop or a Daikin McQuay Authorized Repair Facility. The Rotor is ordered separately (along with a Low Speed Shaft and Low Speed Seal) and the assembly must be performed by a Daikin McQuay Authorized Repair Facility. Contact your Parts Distributor or Daikin McQuay Parts for instructions on coordinating either of these procedures; additional labor charges apply for both procedures.

**If only the Stator needs to be replaced**, in most cases you may use the existing Rotor and Shaft assembly. There are two scenarios:

First, if there is a local motor shop capable of removing the old Stator and shrinking the new one into the existing Housing, order the following:

1. The new Stator
2. The appropriate Motor End Cover O'Ring/Gasket
3. A new Low Speed Seal
4. Gear Train O'Ring Kit
5. Diode (installed in control box)
6. Guardistor Terminals
7. Motor Terminals
8. Locating/Locking Dowel
9. Plug

Second, if you are unable to have the new Stator installed, you still need to order the parts listed above. Upon placing the order, contact Daikin McQuay Parts for appropriate labor charges and instructions for sending the Motor Housing to a Daikin McQuay Authorized Repair Facility to have the new Stator installed.

**If the Rotor needs replacement**, you must also order the following parts:

1. A new Low Speed Shaft
2. A new Low Speed Seal

**If the Low Speed Shaft needs replacement**, you must also order the following parts:

1. A new Rotor
2. A new Low Speed Seal

The Shaft and Rotor must be shrunk fit together and the assembly must be performed by a Daikin McQuay Authorized Repair Facility. Contact your Parts Distributor or Daikin McQuay Parts for instructions on coordinating this procedure. Additional labor charges will apply.

**IMPORTANT:** Please read all mandatory notes on [McQuayParts.com](http://McQuayParts.com) carefully.

# Compressor 1996 to 1998 (Engineering Revision C) 440 Frame Motors

**NOTE: See "Compressor 1996-Present (Eng. Rev. C & D)- Motor Replacement & Retrofit"  
page for information on replacing the Stator, Rotor and Shaft.**

## 440 Frame Motors- Low Voltage

<b>Cyc.</b>	<b>Volts</b>	<b>Nom. HP-- Motor Style</b>	<b>Stator PN</b>	<b>Rotor PN</b>
50	380/400/415	210 ----- 073096463	759910713	073096672
60	440/460/480	260 ----- 073096463	759910713	073096672
50	380/400/415	260 ----- 073096470	759910720	073096673
60	440/460/480	300 ----- 073096470	759910720	073096673

## 440 Frame Motors- High Voltage

<b>Cyc.</b>	<b>Volts</b>	<b>Nom. HP-- Motor Style</b>	<b>Stator PN</b>	<b>Rotor PN</b>
60	4160	300 ----- 073100151	759916701	073096674
50	3300	260 ----- 073100151	759916701	073096674
60	4160	390 ----- 073100153	759916703	073096676
50	3300	360 ----- 073100153	759916703	073096676
60	2300	390 ----- 073100154	759916704	073096676
60	3300	360 ----- 073100155	759916705	073096676
60	3300	300 ----- 073100156	759916707	073096674

# Compressor 1996 to 1998 (Engineering Revision C) 360 Frame Motors

**NOTE: See "Compressor 1996-Present (Eng. Rev. C & D)- Motor Replacement & Retrofit" page for information on replacing the Stator, Rotor and Shaft.**

<b>Cyc.</b>	<b>Volts</b>	<b>Nom. HP--</b>	<b>Motor PN</b>	<b>Stator PN</b>	<b>Rotor PN</b>
60	200/208	180 -----	071785154	071785204	071785351
60	220/230/240	180 -----	071785155	071785205	071785351
50	380/400/415	160 -----	071785156	071785206	071785351
60	440/460/480	180 -----	071785156	071785206	071785351
60	575	180 -----	071785157	071785207	071785351
50	220	180 -----	071785158	071785208	071785352
50	346	180 -----	071785159	071785209	071785352
60	380	230 -----	071785159	071785209	071785352
60	440	180 -----	071785160	071785210	071785352
60	200/208	230 -----	071785161	071785211	071785352
50	380/400/415	180 -----	071785163	071785213	071785352
60	440/460/480	230 -----	071785163	071785213	071785352
60	575	230 -----	071785164	071785244	071785352
50	346	230 -----	071785166	071785216	071785353
60	380	290 -----	071785166	071785216	071785353
60	200/208	290 -----	071785168	071785218	071785353
60	220/230/240	290 -----	071785169	071785219	071785353
50	380/400/415	230 -----	071785170	071785220	071785353
60	440/460/480	290 -----	071785170	071785220	071785353



# Compressor 1998 to Present (Engineering Revision D) 15" Motor- Low Voltage

**NOTE: See "Compressor 1996-Present (Eng. Rev. C & D)- Motor Replacement & Retrofit" page for information on replacing the Stator, Rotor and Shaft.**

<b>Cyc.</b>	<b>Volts</b>	<b>Nom. HP-----</b>	<b>Motor PN</b>	<b>Stator PN</b>	<b>Rotor&amp; Shaft PN</b>
50	220	154 -----	074745751	074745801	074855751
50/60	346/380	154/185-----	074745752	074745802	074855751
50	440	154 -----	074745753	074745803	074855751
60	200/208	185 -----	074745754	074745804	074855751
60	220/230/240	185 -----	074745755	074745805	074855751
50/60	380/400/415/440/460/480	154/185-----	074745756	074745806	074855751
60	575	185 -----	074745757	074745807	074855751
50	220	192 -----	074745758	074745808	074855752
50/60	346/380	192/230-----	074745759	074745809	074855752
50	440	192 -----	074745760	074745810	074855752
60	200/208	230 -----	074745761	074745811	074855752
60	220/230/240	230 -----	074745762	074745812	074855752
50/60	380/400/415/440/460/480	192/230-----	074745763	074745813	074855752
60	575	230 -----	074745764	074745814	074855752
50	220	242 -----	074745765	074745815	074855753
50/60	346/380	242/290-----	074745766	074745816	074855753
50	440	242 -----	074745767	074745817	074855753
60	200/208	290 -----	074745768	074745818	074855753
60	220/230/240	290 -----	074745769	074745819	074855753
50/60	380/400/415/440/460/480	242/290-----	074745770	074745820	074855753
60	575	290 -----	074745771	074745821	074855753

# Compressor 1998 to Present (Engineering Revision D) 20" Motor- Low Voltage

**NOTE: See "Compressor 1996-Present (Eng. Rev. C & D)- Motor Replacement & Retrofit" page for information on replacing the Stator, Rotor and Shaft.**

<b>Cyc.</b>	<b>Volts</b>	<b>Nom. HP-----</b>	<b>Motor PN</b>	<b>Stator PN</b>	<b>Rotor&amp; Shaft PN</b>
50	220	167 -----	073196101	073196201	074855851
50/60	346/380	167/200-----	073196102	073196202	074855851
50	440	167 -----	073196103	073196203	074855851
60	200/208	200 -----	073196104	073196204	074855851
60	220/230/240	200 -----	073196105	073196205	074855851
50/60	380/400/415/440/460/480	167/200-----	073196106	073196206	074855851
60	575	200 -----	073196107	073196207	074855851
50	220	208 -----	073196108	073196208	074855851
50/60	346/380	208/250-----	073196109	073196209	074855851
50	440	208 -----	073196110	073196210	074855851
60	200/208	250 -----	073196111	073196211	074855851
60	220/230/240	250 -----	073196112	073196212	074855851
50/60	380/400/415/440/460/480	208/250-----	073196113	073196213	074855851
60	575	250 -----	073196114	073196214	074855851
50	220	250 -----	073196115	073196215	074855851
50/60	346/380	250/300-----	073196116	073196216	074855851
50	440	250 -----	073196117	073196217	074855851
60	200/208	300 -----	073196118	073196218	074855851
60	220/230/240	300 -----	073196119	073196219	074855851
50/60	380/400/415/440/460/480	250/300-----	073196120	073196220	074855851
60	575	300 -----	073196121	073196221	074855851
50	220	292 -----	073196122	073196222	074855852
50/60	346/380	292/350-----	073196123	073196223	074855852
50	440	292 -----	073196124	073196224	074855852
60	200/208	350 -----	073196125	073196225	074855852
60	220/230/240	350 -----	073196126	073196226	074855852
50/60	380/400/415/440/460/480	292/350-----	073196127	073196227	074855852
60	575	350 -----	073196128	073196228	074855852
50	220	333 -----	073196129	073196229	074855853
50/60	346/380	333/400-----	073196130	073196230	074855853
50	440	333 -----	073196131	073196231	074855853
60	200/208	400 -----	073196132	073196232	074855853
60	220/230/240	400 -----	073196133	073196233	074855853
50/60	380/400/415/440/460/480	333/400-----	073196134	073196234	074855853
60	575	400 -----	073196135	073196235	074855853

## Compressor 1998 to Present (Engineering Revision D) 20" Motor- Medium Voltage

**NOTE: See "Compressor 1996-Present (Eng. Rev. C & D)- Motor Replacement & Retrofit"  
page for information on replacing the Stator, Rotor and Shaft.**

<b>Cyc.</b>	<b>Volts</b>	<b>Nom. HP</b>	<b>Motor PN</b>	<b>Stator PN</b>	<b>Rotor &amp; Shaft PN</b>
60	2300	180	073158601	073158701	074855951
50	3000	150	073158602	073158702	074855951
60	3300	180	073158603	073158703	074855951
60/50	4160/3300	180/150	073158604	073158704	074855951
60	2300	210	073158605	073158705	074855951
50	3000	180	073158606	073158706	074855951
60	3300	210	073158607	073158707	074855951
60/50	4160/3300	210/180	073158608	073158708	074855951
60	2300	250	073158609	073158709	074855951
50	3000	210	073158610	073158710	074855951
60	3300	250	073158611	073158711	074855951
60/50	4160/3300	250/210	073158612	073158712	074855952
60	2300	320	073158613	073158713	074855952
50	3000	265	073158614	073158714	074855952
60	3300	320	073158615	073158715	074855952
60/50	4160/3300	320/265	073158616	073158716	074855952
60	2300	410	073158617	073158717	074855953
50	3000	340	073158618	073158718	074855953
60	3300	410	073158619	073158719	074855953
60/50	4160/3300	410/340	073158620	073158720	074855953

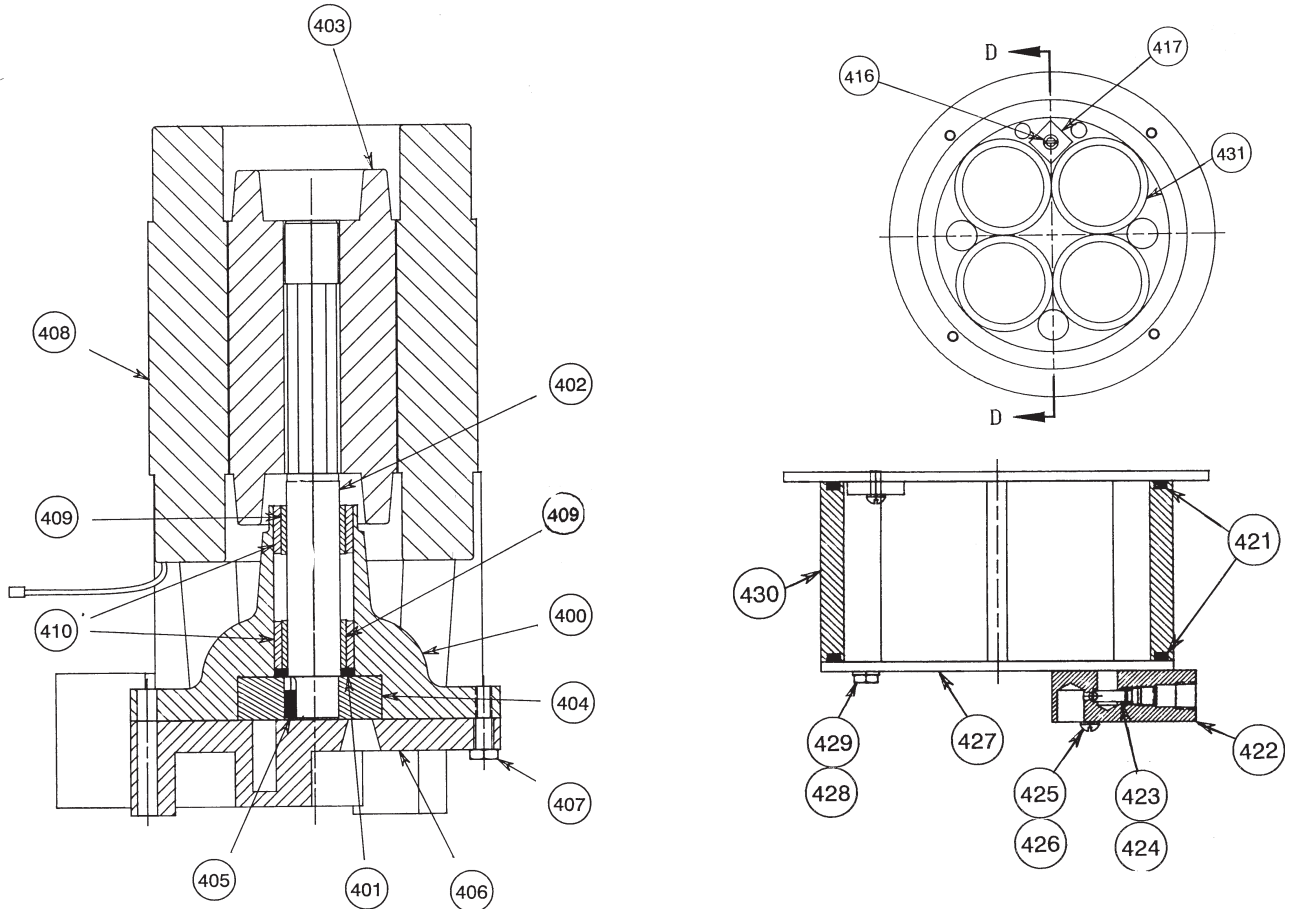
## Compressor 1998 to Present (Engineering Revision D) 20" Motor- High Voltage

**NOTE: See "Compressor 1996-Present (Eng. Rev. C & D)- Motor Replacement & Retrofit"  
page for information on replacing the Stator, Rotor and Shaft.**

<b>Cyc.</b>	<b>Volts</b>	<b>Nom. HP-----</b>	<b>Motor PN</b>	<b>Stator PN</b>	<b>Rotor&amp; Shaft PN</b>
50	6000	150 -----	073165301	073165401	074856051
50	6000	150 -----	073165302	073165402	074856051
60	6600	180 -----	073165303	073165403	074856051
50	6000	180 -----	073165304	073165404	074856051
50	6000	180 -----	073165305	073165405	074856052
60	6600	210 -----	073165306	073165406	074856052
50	6000	210 -----	073165307	073165407	074856052
50	6000	210 -----	073165308	073165408	074856052
60	6600	250 -----	073165309	073165409	074856052
50	6000	265 -----	073165310	073165410	074856053
50	6000	265 -----	073165311	073165411	074856053
60	6600	320 -----	073165312	073165412	074856053
50	6000	340 -----	073165313	073165413	074856054
50	6000	340 -----	073165314	073165414	074856054
60	6600	410 -----	073165315	073165415	074856054
50	6000	415 -----	073165316	073165416	074856055
50	6000	415 -----	073165317	073165417	074856055

# Oil Pump- 1993 to Present

## Internal Parts/Mist Eliminator



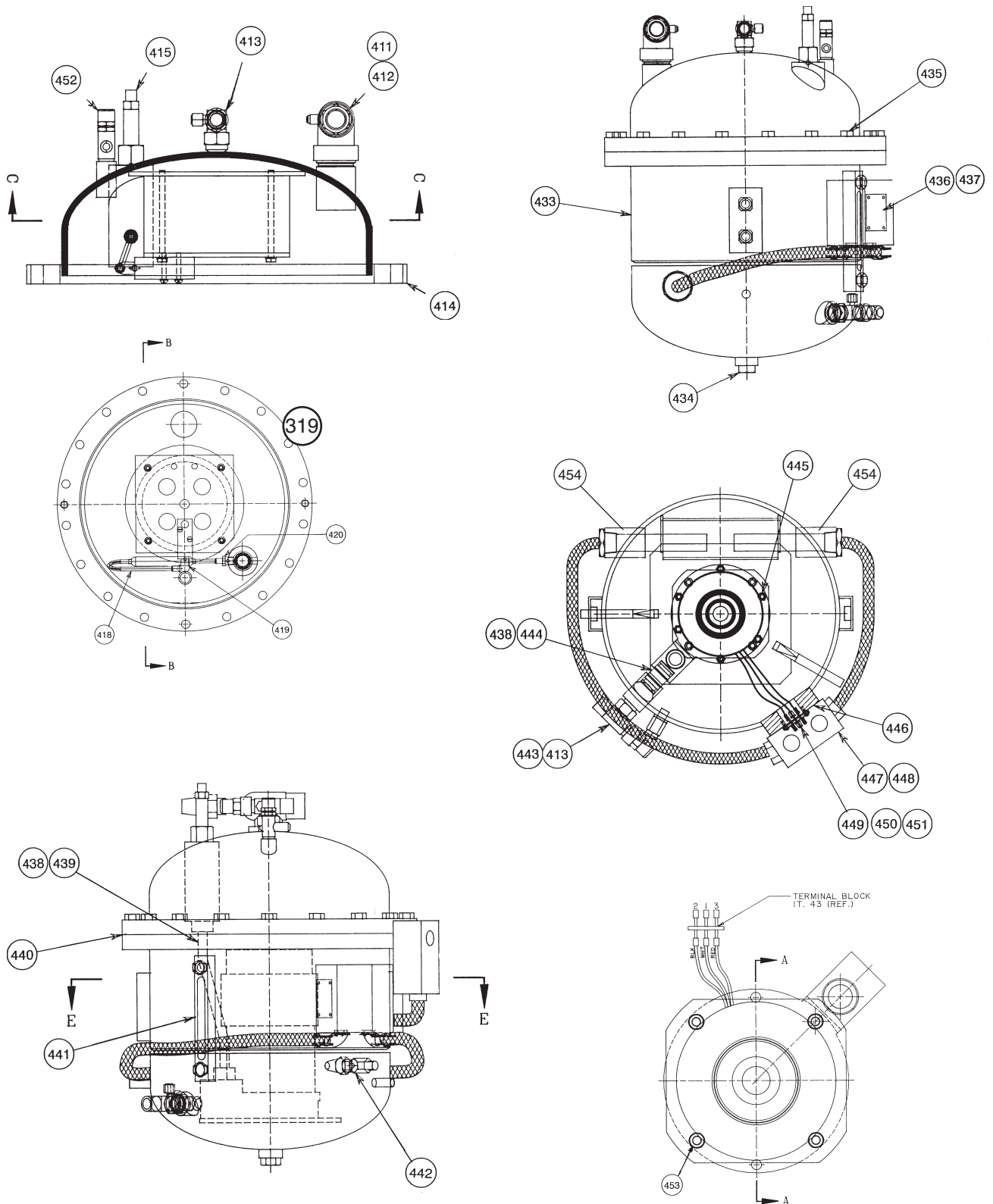
Ref #	Qty.	Description	Part No.
		Complete Oil Pump	070019252
400	1	Housing- Oil Pump	071733202
401	1	Washer	735236106
402	1	Shaft	070937502
403	1	Rotor	070300351
404	1	Gerotor (oil pump)	735085401
405	1	Pin	735038049
406	1	Oil Pump (Gerotor) Cover	070455501
407	3	Screw	735033406
408	1	Stator (2 HP)	070300301
409	2	Bearing (1.0" OD)	070180303*
410	2	Bearing (1.0" ID)	070180302*
		Complete Internal Oil Pump Replacement	070019289
		(includes all of the above parts [400-410])	

Ref #	Qty.	Description	Part No.
416	1	Screw	735034918
417	1	Filter Positioner	070254401
421	2	O'Ring	735073638
422	1	Housing- Jet Pump	070359001
423	1	Mist Eliminator Nozzle	775208301
424	1	O'Ring	735073615
425	2	Lock Washer	048164806
426	2	Screw	735033903
427	1	Mist Eliminator panel	070254201
428	4	Screw	735033903
429	4	Lock Washer	048164808
430	1	Mist Eliminator Sleeve	070254301
431	4	Mist Eliminator Filter	735085708

\* In 9/88 the old shaft and single bearing were replaced by a shaft and dual (inner/outer) bearings. A unit requiring a replacement of the above parts built prior to 9/88 will require the complete Gerotor Ass'y listed above

# Oil Pump- 1993 to Present

## Cover, Tubing, Valves, Electrical



## Oil Pump- 1993 to Present

### Cover, Tubing, Valves, Electrical- Continued

Ref #	Qty.	Description -----	Part No.
411	1	Shut Off Valve -----	735039953
412	1	Seal Ring: 1.0" -----	736017605
413	2	Seal Ring: .75" -----	736017603
414	1	Oil Pump Cover -----	070019906
415	1	Adjustable Relief Valve -----	735045814
418	1	Jet Pump Tube Assembly -----	070024101
419	1	Elbow -----	001124300
420	1	Coupling -----	735044204
432	2	Wire Nut -----	735005605
433	1	Sump Ass'y -----	070020006
434	1	Roto-Lock Coupling (after2/94) ---	072906901
	1	Coupling Cap (after2/94) -----	735044359
	1	Coupling Gasket (after2/94) -----	070199111
	1	Coupling Seal Ring (after2/94)----	736017604
	1	Plug O'Ring (before 2/94) -----	735017101
435	18	Screw- Top Cover -----	735033848
436	4	Dataplate Rivets -----	735034707
438	4	O'Ring -----	735073632
439	1	Tube- Oil Return -----	070019805
440	1	O'Ring -----	735043682
441	1	Liquid Level Gauge -----	735005704
442	1	Shut Off Valve- 3/8" -----	735039907
443	2	Shut Off Valve- 5/8" -----	735039966
444	1	Tube- Oil Discharge -----	070281001
445	3	Screw -----	735033812
446	4	Screw -----	735032741
447	1	Electrical Box -----	070278801
448	1	Electrical Box Cover -----	000969300
449	1	Terminal Block -----	070260801
450	1	O'Ring -----	735073635
451	4	Screw -----	735036446
452	1	Relief Valve (200PSI) -----	735045818
453	4	Screw -----	735033904
454	2	Sump Heater -----	070302302**
N/S	6 ft <sup>2</sup>	Insulation- TEH Units Only -----	070199204

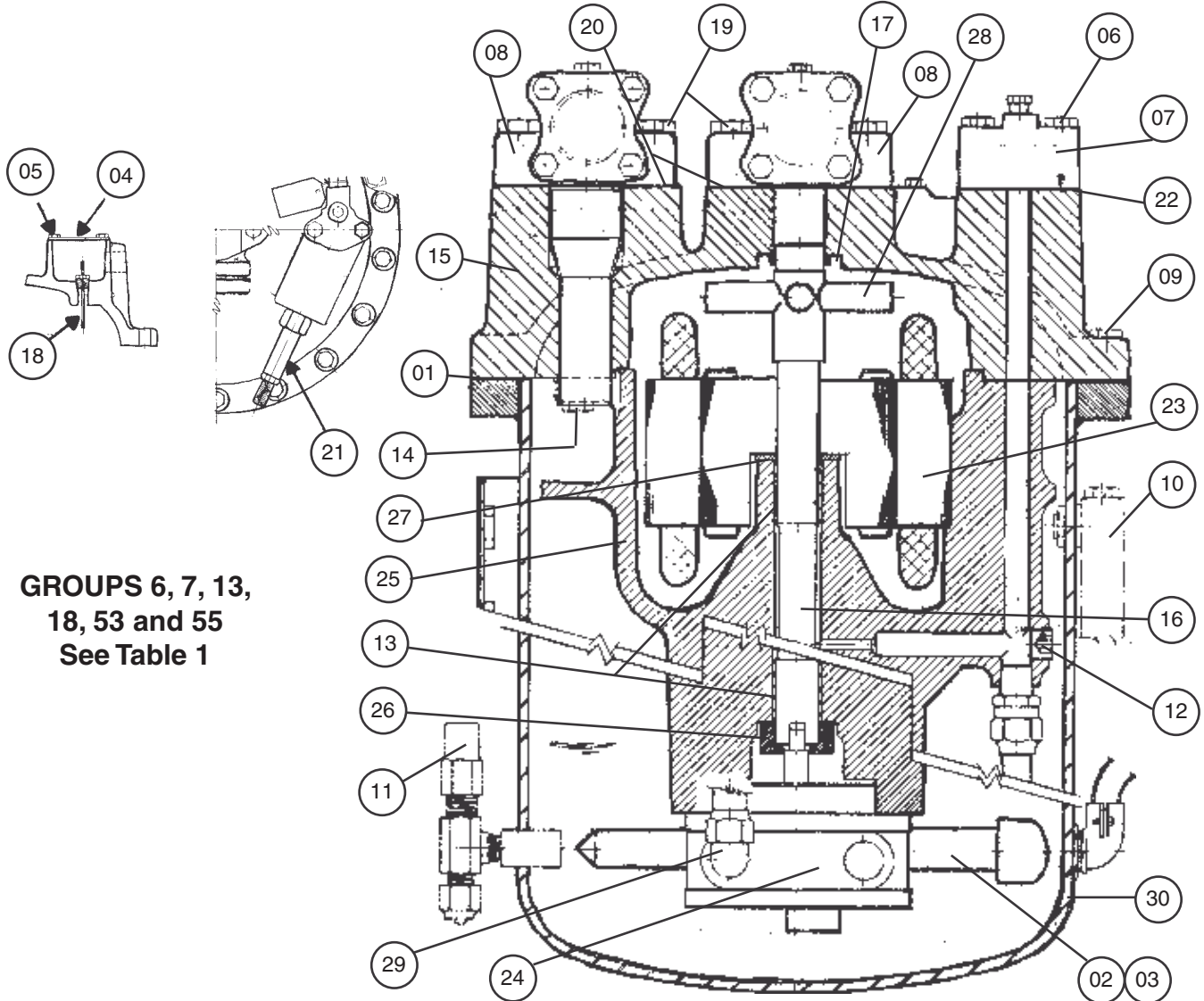
Complete O'Ring Kit -----071541202

Vent Retrofit Kit -----070019293\*\*\*

\*\*Prior to Serial Number 5TK 00521-01 the oil pump used a heater and well assembly. The new oil pumps use a direct immersion heater. If a replacement heater well is required the oil sump must be replaced to accomodate the direct immersion heater. Order one sump (070020006) and two heaters (070302302).

\*\*\*Used if the installed pump has a style number of 700192AG02 (used until 1989), and a replacement pump is required.

# Oil Pump- 354A366 (Original)



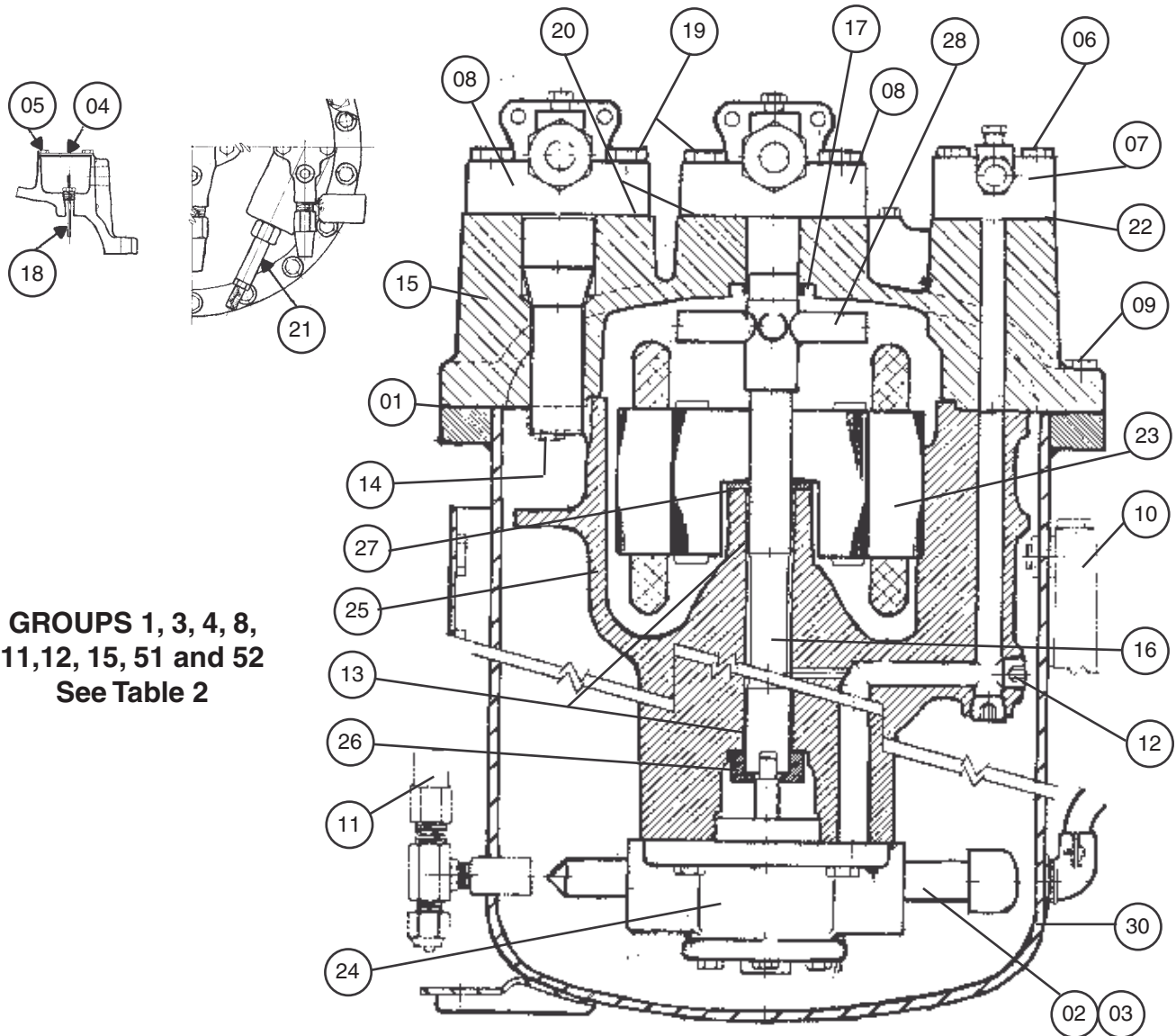
**GROUPS 6, 7, 13,  
18, 53 and 55  
See Table 1**

REF. #	QTY.	DESCRIPTION	TABLE 1	TABLE 2
1	1	Gasket	735013028	735013028
2	1	Heater (250W, 115V) <sup>1</sup>	N/A	735041251 <sup>1</sup>
3	1	Heater Well <sup>1</sup>	715476901 <sup>1</sup>	715476901 <sup>1</sup>
4	1	Cover, terminal (models 063,079)	735234101	735234101
5	4	Screws (.25 x .50)	000011400	000011400
6	2	Bolts (.38 x 1.75)	735033435	735033435
7	1	Valve, Discharge	735046003	735046003
8	1	Valve, Vent & Return Service	735046004	735046004
9	18	Bolts (.38 x 1.5)	735033434	735033434
10	1	Liquid Level Gauge	735005703	735005703
11	1	Valve, Drain (25 x 25)	735039947	735039947
12	-	Plug (.38)	735031629 (1)	735031629 (2)
13	1	Bushing, Oil Pump	744022901	744022901
14	-	Bolts (.38 x 1.0)	735033432 (4)	735033432 (8)
15	1	Cover, Oil Pump	753531103	753531103
16	1	Rotor & Shaft Assembly	735433202	735433202
17	1	Seal	735234301	735234301
18	3	Terminal	735234401	735234401
19	4	Bolts (.50 x 1.75)	735033448	735033448

<sup>1</sup>We are now using an immersion type heater with connecting conduit (Part #070302302). This heater is retrofitable with any existing #744165802 oil pump sumps. Stop using #7350A412H48 heaters with #715476901 heater wells and start using the #070302301 direct immersion heater.



# Oil Pump- 354A366 (Original), Continued

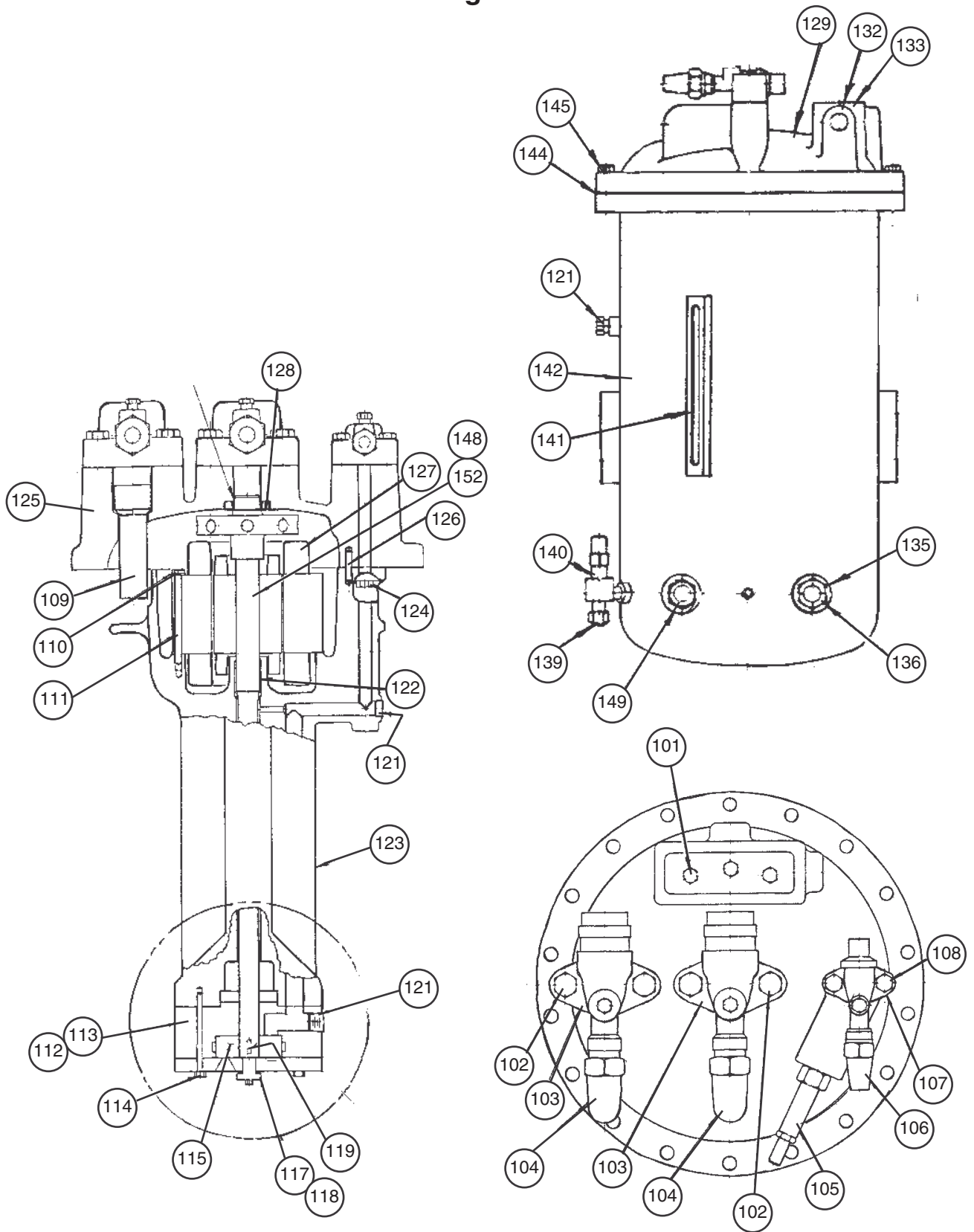


**GROUPS 1, 3, 4, 8,  
11,12, 15, 51 and 52  
See Table 2**

REF. #	QTY.	DESCRIPTION	TABLE 1	TABLE 2
20	2	Gasket	735013024	735013024
21	1	Valve, Relief	735045814	735045814
22	1	Gasket	735013001	735013001
23	1	Stator	759521702	759521702
24	1	Gerotor	759689701	744023201
25	1	Housing, Oil Pump	753533505	753533504
26	1	Thrust, Oil Pump	744029801	744029801
27	1	Bearing, Oil Pump Thrust	735239201	735239201
28	1	Separator	744200301	744200301
29	1	Elbow (62 x 50)	735044705	n/a
30	1	Oil Pump Assembly	744165802	744165802

735881115 is the complete motor and pump assembly which will replace the pump assembly of any long sump oil pump. It includes everything **except** the can and the top cover and valves. If you are retrofitting a unit with a 1750 rpm motor, you will need a new overload (Relay: 735021501 and Heater:735021555) and a new capacitor (735003059). The 3600 rpm motor is rated at 1.5 hp, while the old 1750 rpm motors were 1.0 hp.

# Oil Pump- 358A811 (mid 70's- 1990) Diagrams



## Oil Pump- 358A811 (mid 70's- 1990) Components

Ref. #	Qty.	Description	Part Number
101	3	Terminal, Motor	735234401
102	4	Screws (.5 x 1.7)	735033448
103	2	Gasket (2.75)	070199002
104	2	Valve, Shut-off (1.37)	735046004
105	1	Valve, Relief (adj.)	735045814
106	1	Valve, Shut-off (.87)	735046002
107	1	Gasket (1.75)	070199001
108	2	Screw (.37 x 1.7)	735033435
109	1	Copper Tube	735063051
110	4	Lock Washer (.25)	048164808
111	4	Screw (.25 x 3.5)	735033902
112	1	Cover, Oil Filter	744371702
113	1	Housing, Oil Pump	744371801
114	4	Screw (.31 x 3.0)	735033426
115	1	Gerotor	735085401
117	1	Bearing, Pump	735967701
118	1	Screw (#10 x 1.2)	735036321
119	1	Woodruff Key	735023803
121	2	Plug, Pipe (.37)	049760903
122	1	Bushing, Oil Pump	744022901
123	1	Housing, Oil Pump Motor	776347802
124	4	Screw (.37 x 1.0)	735033432
125	1	Cover, Oil Pump	735881155
126	2	Dowel (1.25 x .25)	735038036
127	1	Stator- 1.5 HP	744345601
128	1	Seal	735234315
129	1	Sub Assembly, Oil Pump	735881113
132	1	Dataplate	714286201
133	4	Rivets	735034707
135	1	Heater Well <sup>4</sup>	715476901 <sup>4</sup>
136	1	Crankcase Heater (250w) <sup>4</sup>	735041251 <sup>4</sup>
136	1	Crankcase Heater (300W) <sup>4</sup>	735041248 <sup>4</sup>
136	1	Crankcase Heater (400W)	735041254 <sup>4</sup>
139	1	Cap, Flare (.375)	000540900
140	1	Valve, Shut-off (37 x 25)	735039907
141	1	Liquid Level Gauge	735005703
142	1	Shell, Oil pump	744165803
144	1	Cover Gasket- Until 3/90	735013028
	1	Cover O'Ring- After 3/90	735073693
145	18	Screw (.37 x 1.5)	735033434
148	1	Rotor/Shaft Assembly <sup>1</sup>	735433204 <sup>1</sup>
149		See Ref# 136- Heater	
152	1	Oil Separator <sup>1</sup>	744200301 <sup>1</sup>

<sup>1</sup> Oil Separator part of Rotor/Shaft Assembly.

<sup>4</sup> This pump can use either the well style heater #735041251, #735041248, #735041248 or a direct immersion style heater #070302302.

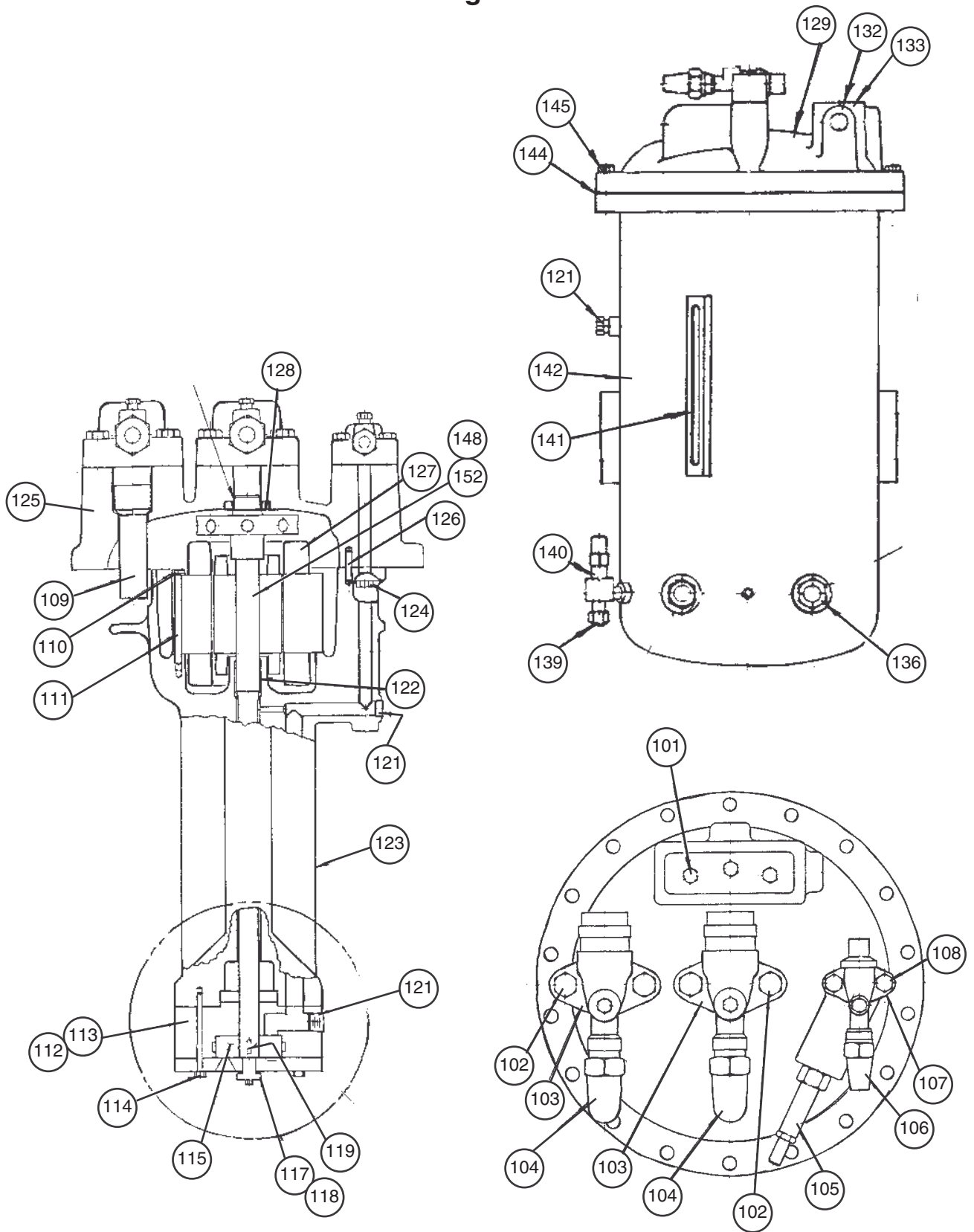
**Group 10:** 358A811G10 (now 070878901) is the complete 063 Oil Pump Assembly.

**Group 15:** 358A811G15 (now 070878902) is the complete motor and pump assembly which will replace the pump assembly of any 063 long sump oil pump. It includes everything except the can and the top cover and sump. If you are retrofitting a unit with a 1750 rpm motor, you will need a new overload (Relay: 735021501 and Heater: 735021555) and a new capacitor (735003059). The 3600 rpm motor is rated at 1.5 hp, while the old 1750 rpm motors were 1.0 hp.

**Group 17:** Retrofit Kit.

# Oil Pump- 070878901 (1990-1992)

## Diagrams



## Oil Pump- 070878901 (1990-1992) Components

Ref. #	Qty.	Description	Part Number
		Complete Assembly (less cover & valves)	070878902
101	3	Terminal, Motor	735234401
102	4	Screws (.5 x 1.7)	735033448
103	2	Gasket (2.75)	070199002
104	2	Valve, Shut-off (1.37)	735046004
105	1	Valve, Relief (adj.)	735045843
106	1	Valve, Shut-off (.87)	735046002
107	1	Gasket (1.75)	070199001
108	2	Screw (.37 x 1.7)	735033435
109	1	Copper Tube	735063051
110	4	Lock Washer (.25)	048164808
111	4	Screw (.25 x 3.5)	735033902
112	1	Cover, Oil Pump	744371702
113	1	Housing, Oil Pump	744371801
114	4	Screw (.31 x 3.0)	735033426
115	1	Gerotor	735085401
117	1	Bearing, Pump	735967701
118	1	Screw (#10 x 1.2)	735036321
119	1	Woodruff Key	735023803
121	2	Plug, Pipe (.37)	049760903
122	1	Bushing, Oil Pump	744022901
123	1	Housing, Oil Pump Motor	071666401
124	4	Screw (.37 x 1.0)	735033432
125	1	Cover, Oil Pump	735881155
126	2	Dowel (1.25 x .26)	735038053
127	1	Stator- 2 HP	070300301
128	1	Seal	735234315
129	1	Sub Assembly, Oil Pump	735881113
132	1	Dataplate	714286201
133	4	Rivets	735034707
136	1	Crankcase Heater (250w)	070302302
139	1	Cap, Flare (.375)	000540900
140	1	Valve, Shut-Off (37 x 25)	735039907
141	1	Liquid Level Gauge	735005703
142	1	Shell, Oil Pump	744165803
144	1	Cover O'Ring	735073693
145	18	Screw (.37 x 1.5)	735033434
148	1	Rotor/Shaft Assembly	735433204
152	1	Oil Separator <sup>1</sup>	744200301 <sup>1</sup>

<sup>1</sup> Oil Separator part of Rotor/Shaft Assembly.

**070878901:** 070178901 is the complete 063 Oil Pump Assembly.

**070878902:** 070878902 is the complete motor and pump assembly which will replace the pump assembly of any 063 long sump oil pump. It includes everything except the can and the top cover and sump.

# Valve Caps

Valve Caps come with all of the shut off, expansion and ball valves used on the unit. However, the caps may be ordered as separate parts. Below is a list of the valves which have caps available for them, and the cap part number.

<b>Valve PN</b>	<b>Cap PN</b>
735039811	071556904
735039907	071556909
735039929	071556909
735039947	071556909
735039953	071556901
735039966	071556909
735046002	071556914
735048609	071556912
735048618	071556913
735048625, 24, 26, 27	071556912
735048634	071556913
735048665	071556913
070301501	071556915

# Oil

Oil Charge= 6 gallons

Oil Part Number R12/R500 Units= L319

Oil Part Number R134a Units= EAL46- 735030435\*

\* TEH units consult Daikin McQuay Parts.