YORK®	ISOFLOW ABSORPTION CHILLERS	
RENEWAL PARTS	Supersedes: 155.16-RP3 (202)	Form 155.16-RP3 (1106)

MODELS

STEAM
YIA-ST-1A1 THRU YIA-ST-14F3

HOT WATER
YIA-HW-1A1 THRU YIA-HW-14F3

LD12356

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IMPORTANT!
READ BEFORE PROCEEDING!

GENERAL SAFETY GUIDELINES

This equipment is a relatively complicated apparatus. During installation, operation, maintenance or service, individuals may be exposed to certain components or conditions including, but not limited to: refrigerants, oils, materials under pressure, rotating components, and both high and low voltage. Each of these items has the potential, if misused or handled improperly, to cause bodily injury or death. It is the obligation and responsibility of operating/service personnel to identify and recognize these inherent hazards, protect themselves, and proceed safely in completing their tasks. Failure to comply with any of these requirements could result in serious damage to the equipment and the property in which it is situated, as well as severe personal injury or death to themselves and people at the site.

This document is intended for use by owner-authorized operating/service personnel. It is expected that this individual possesses independent training that will enable them to perform their assigned tasks properly and safely. It is essential that, prior to performing any task on this equipment, this individual shall have read and understood this document and any referenced materials. This individual shall also be familiar with and comply with all applicable governmental standards and regulations pertaining to the task in question.

CHANGEABILITY OF THIS DOCUMENT

In complying with YORK's policy for continuous product improvement, the information contained in this document is subject to change without notice. While YORK makes no commitment to update or provide current information automatically to the manual owner, that information, if applicable, can be obtained by contacting the nearest YORK Service office.

It is the responsibility of operating/service personnel to verify the applicability of these documents to the equipment in question. If there is any question in the mind of operating/service personnel as to the applicability of these documents, then prior to working on the equipment, they should verify with the owner whether the equipment has been modified and if current literature is available.

INTRODUCTION

The purpose of this renewal parts literature is to present a simple and quick means of finding the correct replacement part(s) for YORK single-stage absorption units.

Towards the back of this document is a complete listing of recommended spare parts for routine chiller maintenance. Following that is a complete listing of parts to keep on hand for emergency situations in which chiller downtime must be kept to a minimum.

The final section of this document is a complete listing of typical parts that are shipped loose with each chiller shipment. This listing must be used in conjunction with the factory shipping papers associated with each chiller shipment in order to determine which factory options were purchased with each chiller.

The most significant change to the single-stage absorption units since the addition of the Micropanel in June 1993 is the introduction of the new style, internally cooled solution, and refrigerant pump. These pumps were incorporated on the single-stage absorption units in July 1996. Units with these pumps are identified by "Modification Level 'A'."

This change affected other areas of the unit as well. Units equipped with these pumps do not require the external motor coolant circuit used on older units with Franklin pumps. The internally-cooled pumps utilize the pumping fluid to cool the motor and bearings. The pumping fluid also carries away heat generated by the motor. To ensure that there is adequate pumping liquid to sufficiently cool the motor and pump assembly, a different float switch arrangement was necessary. The motor coolant float switch (2F) and motor coolant solenoid (1SOL), required for Franklin pumps, have been replaced with a new float switch, called the refrigerant level float switch (3F). This switch is used in conjunction with the existing refrigerant level float switch (1F) to detect the refrigerant level at the input to the refrigerant pump during low loads and low tower water conditions.

Along with the previous change is the implementation of isolation valves for each pump. A tight-sealing butterfly valve is located off of the suction and discharge connections of each pump. These valves have taken the place of the gaskets formerly used on the Franklin pump applications. Each isolation valve has an EPDM elastomer liner over the face of the valve to provide an adequate sealing surface for ease of serviceability during pump maintenance.

Units built before February 1998 had two different types of generators – a standard temperature generator and a high-temperature generator. At that time, YORK stabilized the design of the generators. Units with a high-temperature generator as standard are identified by "Modification Level 'B'."

Units built before January 1999 used as a standard, chromate solution inhibitor. Between January 1999 and June 2000, YORK standardized on molybdate as the solution inhibitor. After June 2000, YORK exclusively introduced ADVAGuard 750 into the marketplace as the solution inhibitor on all YORK-built absorption products. To determine which inhibitor is in your unit, please consult the unit nameplate, which can be found affixed to the side on the micro panel.

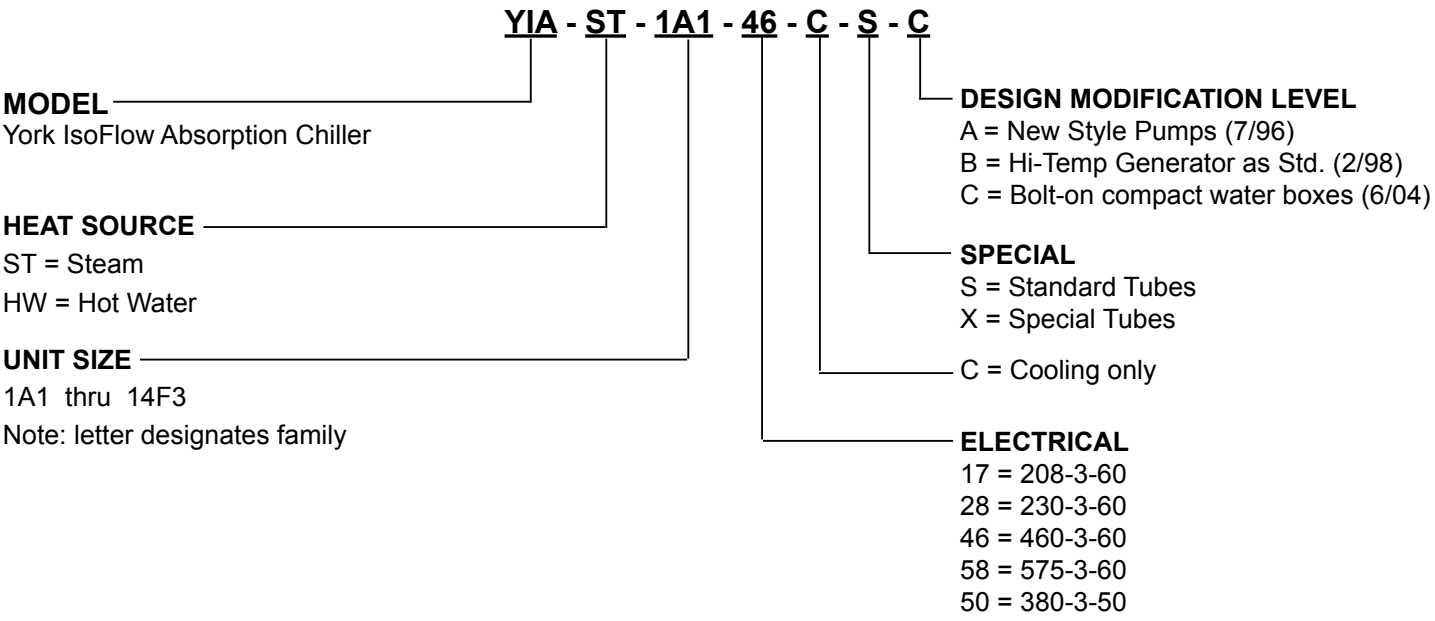
Another change made in January 1999 was to the unit's purge system. Purge solenoid (5SOL) was eliminated and replaced with a 1/2" swing type check valve. Also, the vacuum pump was upgraded to a more industrial-duty pump.

Recent changes that have been made since the last publication of this document are:

1. Initiation of a 4-20 mA control valve signal. This change required a new line of control valve part numbers along with a new version of EPROM. For details please see YORK literature supplement 155.16-M3 (LS01).
2. As a result of item 1, in some situations, the steam condensate drain solenoid valve is no longer required.
3. Bolt-on water boxes. However, this change does not affect the gasket type or quanity, only the gasket location.
4. Relocation of the HP1 and PT1 assembly. Please see Service Information letter SI0070 for details.
5. Modification of 1F and 3F float switches.

NOMENCLATURE

The model number denotes the following characteristics of the unit:



MAJOR COMPONENT LOCATION

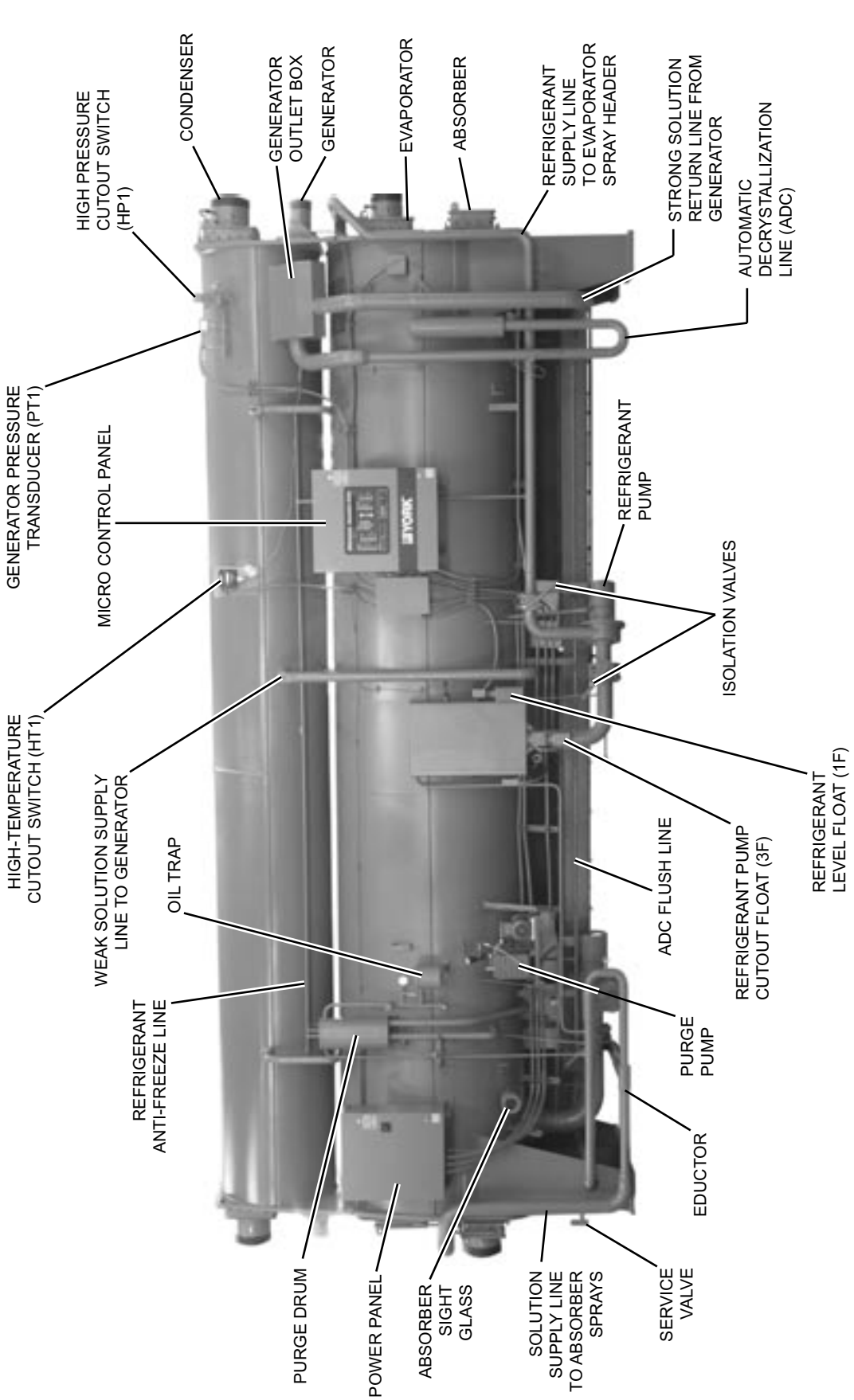


FIG. 1 – MODEL YIA ISOFLOW ABSORPTION CHILLER

CONTROL PANEL – MICRO PANEL (STANDARD & NEMA 4)

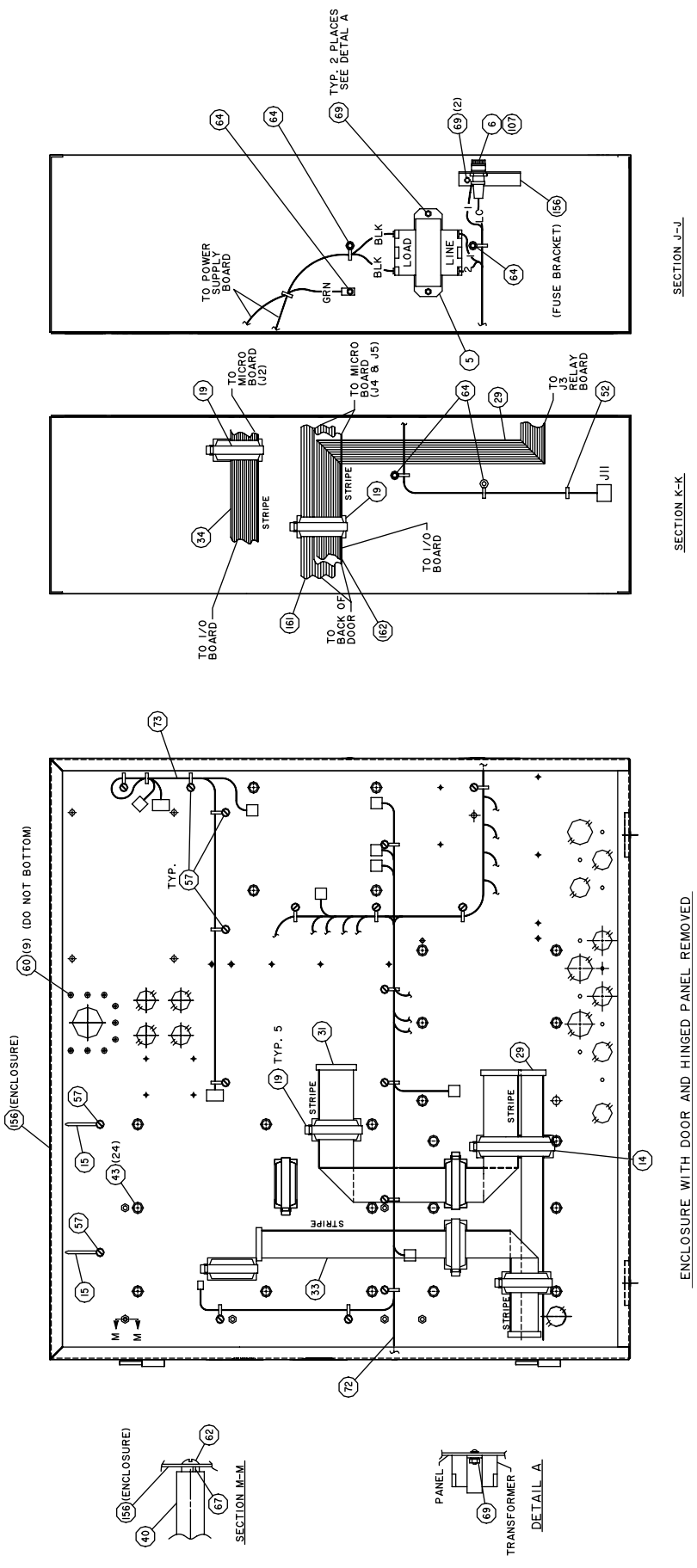


FIG. 2 – CONTROL PANEL - MICRO PANEL (STANDARD & NEMA 4)

CONTROL PANEL – MICRO PANEL (STANDARD & NEMA 4)

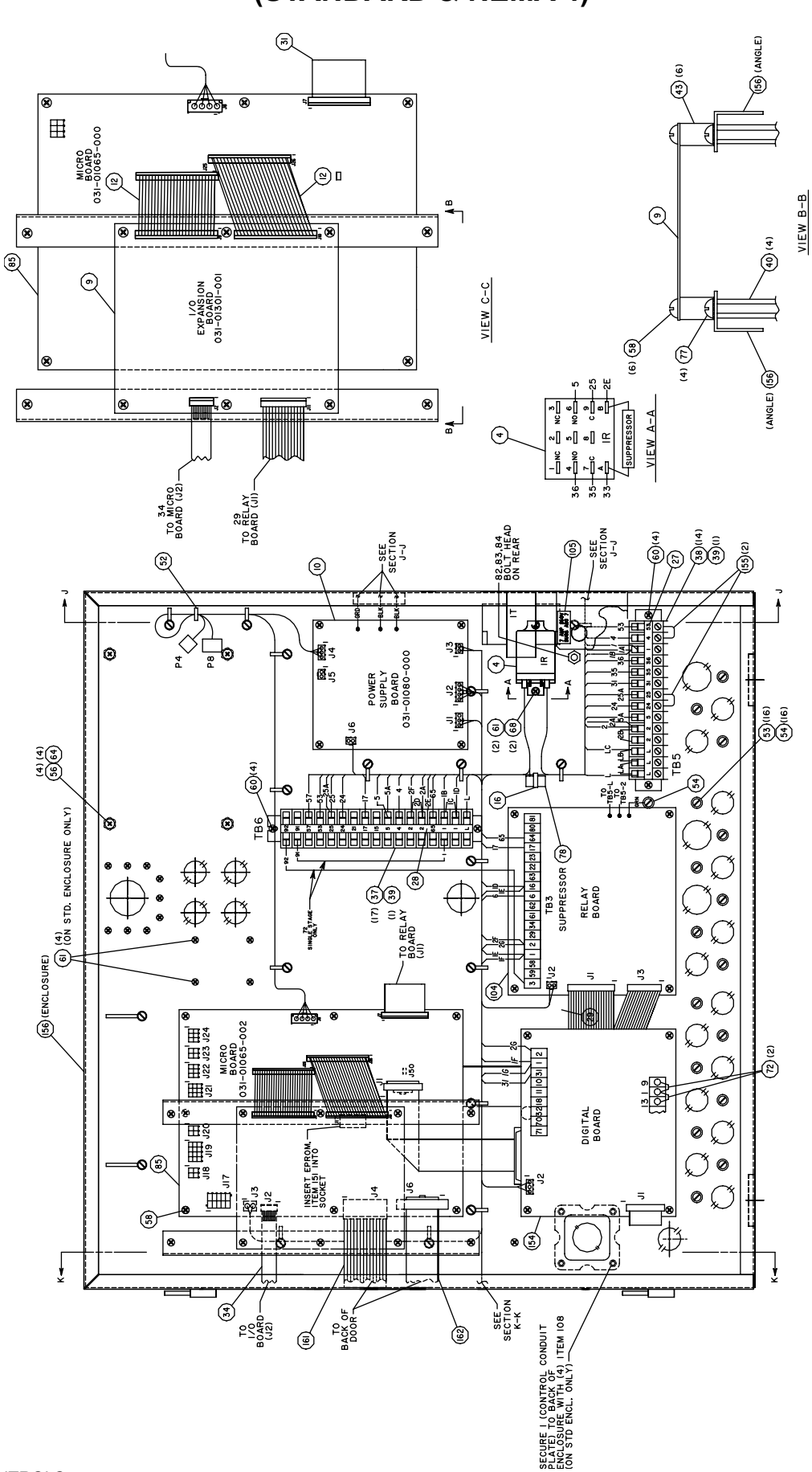


FIG. 3 – CONTROL PANEL - MICRO PANEL (STANDARD & NEMA 4)

CONTROL PANEL – MICRO PANEL (STANDARD & NEMA 4)

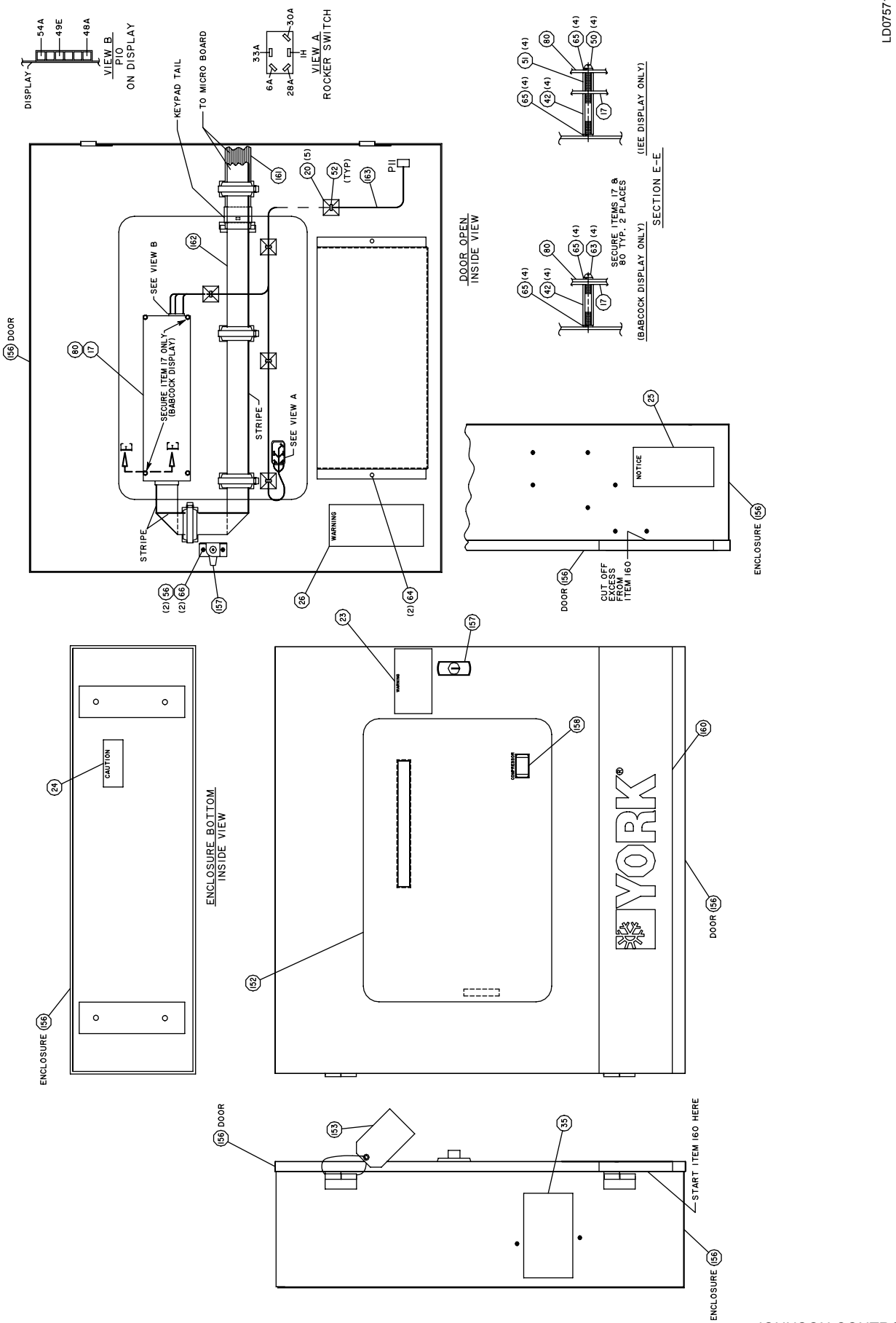


FIG. 4 – CONTROL PANEL - MICRO PANEL (STANDARD & NEMA 4)

CONTROL PANEL – MICRO PANEL (CE - EUROPEAN COMPLIANCE)

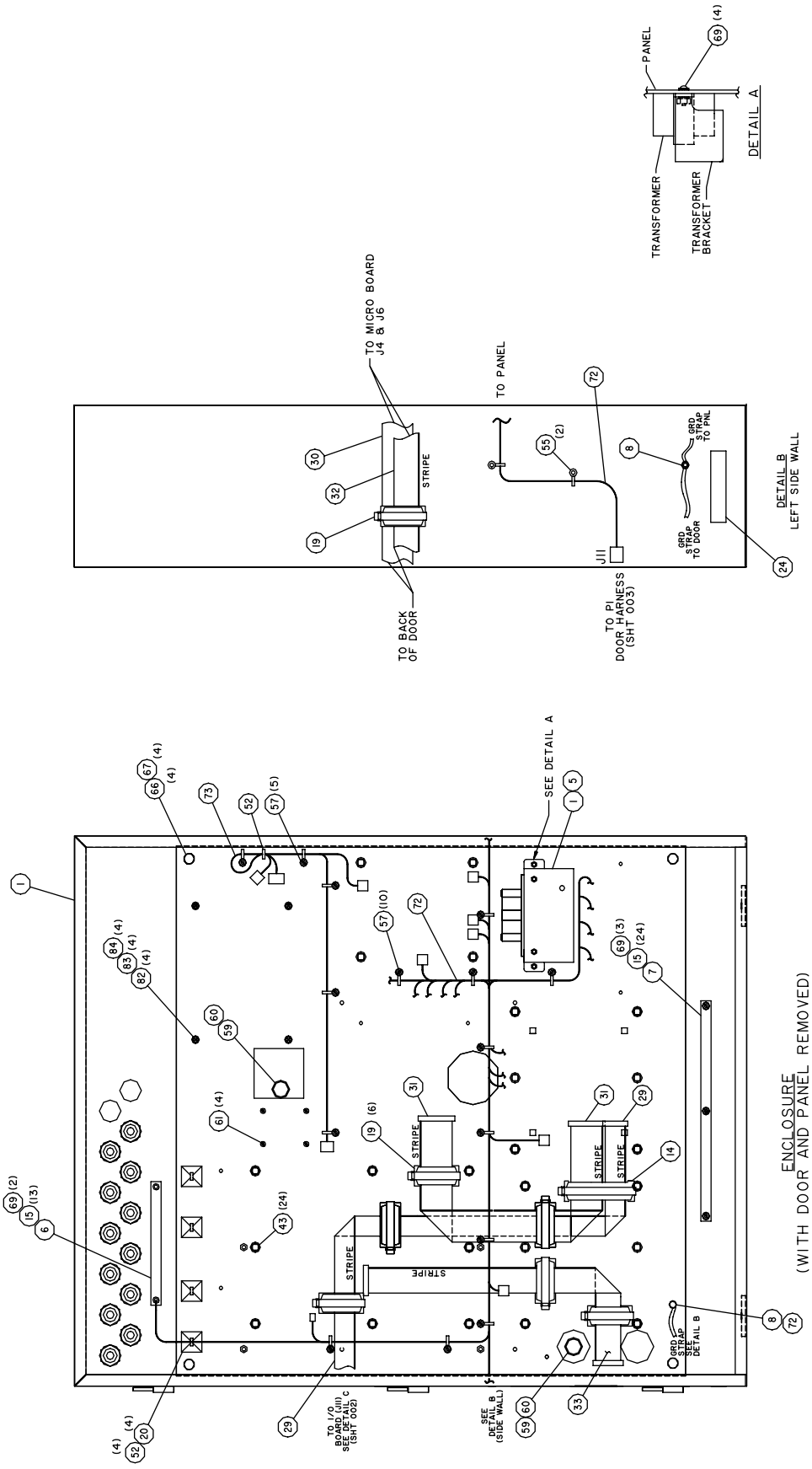


FIG. 2A – CONTROL PANEL - MICRO PANEL (CE - EUROPEAN COMPLIANCE)

CONTROL PANEL – MICRO PANEL (CE - EUROPEAN COMPLIANCE)

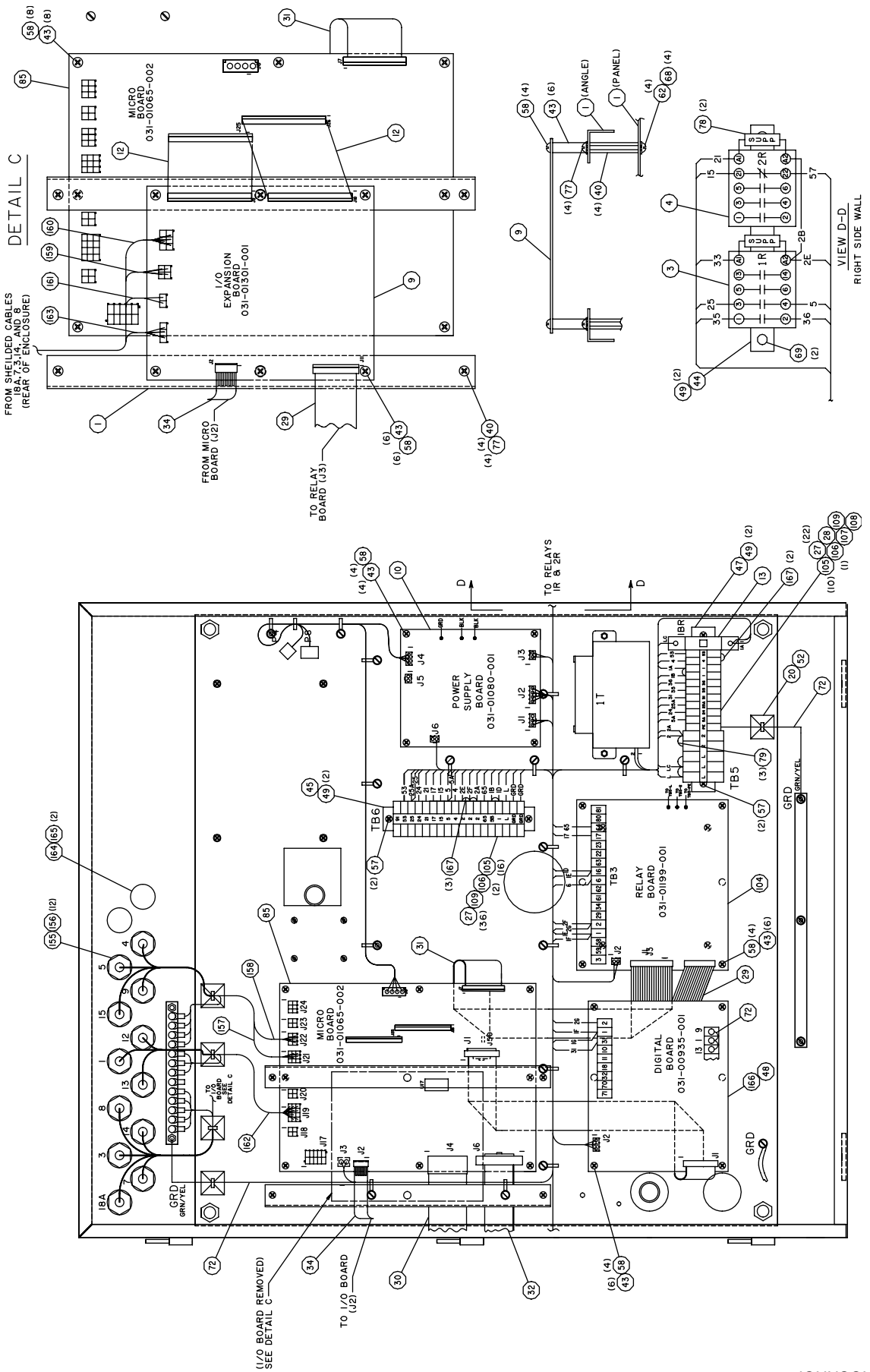


FIG. 3A – CONTROL PANEL - MICRO PANEL (CE - EUROPEAN COMPLIANCE)

CONTROL PANEL – MICRO PANEL (CE - EUROPEAN COMPLIANCE)

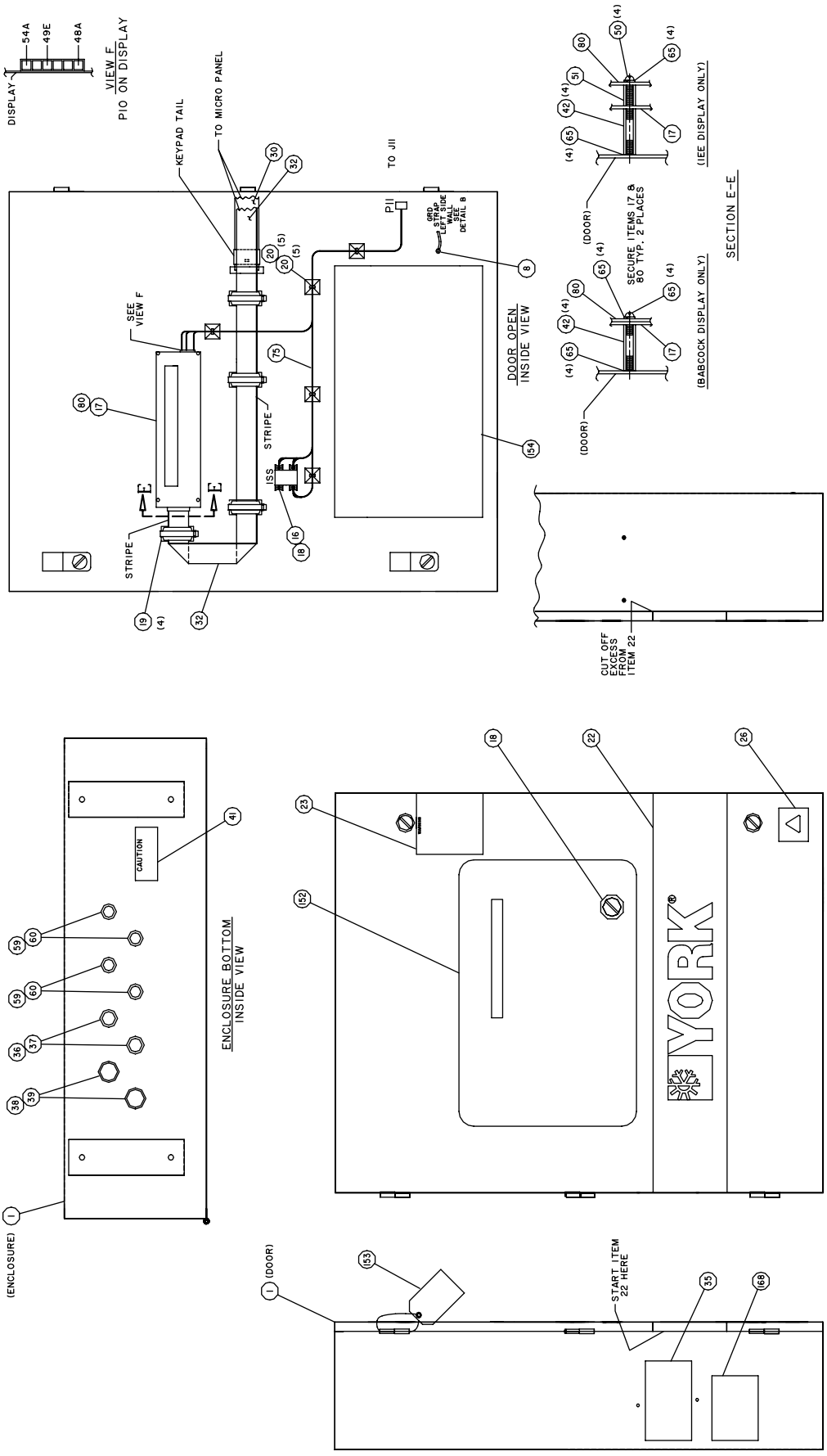


FIG. 4A – CONTROL PANEL - MICRO PANEL (CE - EUROPEAN COMPLIANCE)

MAIN CONTROL PANEL – COMMON PARTS

STANDARD & NEMA 4

CE - EUROPEAN COMPLIANCE – UK & GERMAN

STD. ITEM NO.	CE ITEM NO.	DESCRIPTION	FIG.	QTY.	PART NO.
–	**CE-3**	Relay Control (1R)	3	1	024 26947 000
4	–	Relay Control (1R)	3	1	024 23962 000
–	**CE-4**	Relay Control (2R)	3	1	024 25598 000
5	**CE-5**	Transformer (1T)	2	1	025 27911 000
6	–	Fuse, 7 amp (1FU)	2	2	025 29905 000
–	**CE-6**	Bar, Ground	–	1	071 01472 306
–	**CE-7**	Bar, Ground	–	1	071 01472 307
–	**CE-8**	Nut, Washer (KEPS) 1/4-20	–	3	021 17269 000
9	**CE-9**	Control, I/O Expansion Board	3	1	031 01301 001
10	–	Control, Power Supply Board	3	1	031 01080 000
–	**CE-10**	Control, Power Supply Board	3	1	031 01080 001
12	**CE-12**	Cable, Ribbon-I/O Expansion Board J9 & J10	3	2	031 01322 000
–	**CE-13**	Circuit Breaker	–	1	024 26953 000
14	**CE-14**	Clamp, Ribbon Wire	2	1	025 29103 000
15	**—**	Strap, Cable	2	2	025 11098 000
–	**CE-15**	Screw, Cap Socket HD, 1/4-28 X 3/8 LG.	–	37	021 18409 000
16	–	Strap, Cable	3	1	025 09607 000
–	**CE-16**	Switch, Safety Term	–	8	024 26952 000
17	**CE-17**	Display, Panel	4	1	031 00775 001
–	**CE-18**	Switch, Rotary	–	1	024 26951 000
19	**CE-19**	Clamp, Ribbon Wire	2	11	025 25156 000
20	–	Mount, Cable Strap	4	5	025 25155 000
–	**CE-20**	Mount, Cable Strap	4	10	025 25155 000
23	–	Label, Warning	4	1	035 03908 000
–	**CE-23**	Label, Warning (German)	4	1	035 09999 000
24	**CE-41**	Label, Caution	4	1	035 05548 000
–	**CE-24**	Label, 1P54	–	1	035 11971 000
25	–	Label, Notice	4	1	035 05973 000
26	–	Label, Warning	4	1	035 07425 000
–	**CE-26**	Label, Warning (German-CE)	4	1	035 11929 000
27	–	Strip, Marker	3	1	025 29933 000
–	**CE-27**	Marker, Terminal Block	3	5.8	025 31446 000
28	–	Strip, Marker	3	1	025 29911 000
–	**CE-28**	Marker, Terminal Block	3	1	025 31445 000

MAIN CONTROL PANEL – COMMON PARTS (continued)

STANDARD & NEMA 4

CE - EUROPEAN COMPLIANCE – UK & GERMAN

STD. ITEM NO.	CE ITEM NO.	DESCRIPTION	FIG.	QTY.	PART NO.
29	**CE-29**	Cable, Ribbon-Relay J3	2	1	031 01323 000
31	**CE-31**	Cable, Ribbon-MTA Relay	2	1	031 00951 000
33	**CE-33**	Cable, Ribbon-Digital Input Board J1	2	1	031 00953 000
34	**CE-34**	Cable, Ribbon-Micro Board J2	2	1	031 01321 000
35	**CE-35**	Nameplate, Patent	4	1	029 20119 000
–	**CE-36**	Plug, Threaded Knockout, 1/2” conduit	–	2	025 31400 000
37	**–**	Terminal Block	3	17	025 20944 000
–	**CE-37**	Nut, Lock for Knockout	–	2	021 18404 000
38	–	Terminal Block	3	14	025 20945 000
–	**CE-38**	Plug, Threaded Knockout, 3/4” conduit	–	2	025 31401 000
39	**–**	Terminal Block End	3	2	025 20946 000
	CE-39	Nut, Lock for Knockout	–	2	021 18405 000
40	**CE-40**	Spacer, #8-32 x 3-1/4 lg.	2	4	021 17256 000
42	**CE-42**	Spacer, #6-32 x 3/4 lg.	4	4	021 17259 000
43	**CE-43**	Nut, Expansion	2	30	021 14661 000
–	**CE-44**	Rail, Mounting, Disconnect Switch	–	1	071 01472 302
–	**CE-45**	Rail, Mounting	–	1	071 01472 303
–	**CE-47**	Rail, Mounting	–	1	071 01472 304
–	**CE-48**	Insulator, Digital Control	–	1	071 01472 305
–	**CE-49**	Clamp, End	–	6	025 29189 000
50	**CE-50**	Screw, Mach. Pan HD Recd, #6-32 x 3/4 lg.	4	4	021 03739 000
51	**CE-51**	Spacer, RAF 1127-6-N-O	4	4	021 17776 000
52	–	Strap, Cable	3	10	025 18167 000
–	**CE-52**	Strap, Cable	3	11	025 18167 000
53	–	Washer, Cup	3	16	021 14191 000
54	**–**	Screw, Tap, type F hex head, #10-32 x 3/8 lg.	3	17	021 17608 000
56	–	Screw, Mach. Pan HD Recd, #10-24 x 3/8 lg.	3	6	021 03745 000
57	–	Screw, Tap, type B pan head, #10x 1/2 lg.	2	18	021 13789 000
–	**CE-57**	Screw, Tap, type B pan head, #10x 1/2 lg.	2	19	021 13789 000

MAIN CONTROL PANEL – COMMON PARTS (continued)

STANDARD & NEMA 4

CE - EUROPEAN COMPLIANCE – UK & GERMAN

STD. ITEM NO.	CE ITEM NO.	DESCRIPTION	FIG.	QTY.	PART NO.
58	**–**	Screw, Tap, type B pan head, #8 x 1-1/4 lg.	3	30	021 14667 000
–	**CE-58**	Screw, Tap, type B pan head, #8 x 1-1/4 lg.	3	26	021 14667 000
–	**CE-59**	Plug, Threaded Knockout, 3/8” conduit	–	6	025 31472 000
60	**–**	Screw, Tap, type B pan head, #8 x 3/8 lg.	3	16	021 13783 000
–	**CE-60**	Nut, Lock for Knockout	–	6	021 18410 000
61	–	Screw, Tap cut type F, #6-32 x 1/2 lg.	3	6	021 13721 000
–	**CE-61**	Screw, Tap cut type F, #6-32 x 1/2 lg.	3	4	021 13721 000
62	**CE-62**	Screw, Mach. Pan HD Recd, #8-32 x 1/2 lg.	2	4	021 01722 000
63	–	Screw, Mach. Pan HD Recd, #6-32 x 3/8 lg.	4	4	021 01692 000
64	**–**	Nut/Washer (KEPS), #10-24	2	11	021 18024 000
–	**CE-55**	Nut/Washer (KEPS), #10-24	2	2	021 18024 000
65	**CE-65**	Lockwasher, Internal Tooth, #6	4	8	021 01132 000
66	–	Lockwasher, Internal Tooth, #10	4	2	021 01137 000
–	**CE-66**	Nut, Hex, 3/8-16	–	4	021 00467 000
67	–	Lockwasher, Internal Tooth, #8	2	4	021 01133 000
–	**CE-67**	Lockwasher, Internal Tooth, 3/8	–	4	021 01155 000
68	**–**	Washer, Plain, 5/32 ID x 3/8 O D x .049 thk.	3	2	021 11641 000
–	**CE-68**	Lockwasher, Internal Tooth, #8	2	4	021 01133 000
69	–	Nut/Washer (KEPS), #8-32	2	4	021 17664 000
–	**CE-69**	Nut/Washer (KEPS), #8-32	2	11	021 17664 000
72	–	Wiring, Harness, Main	2	1	571 01288 201
–	**CE-72**	Wiring, Harness, Main	2	1	571 01472 201
73	**CE-73**	Wiring, Harness, Card Cage	2	1	571 01111 001
77	**CE-77**	Screw/Washer Assy. (SEMS) #8-32 x 1/2 lg.	3	4	021 17268 000
78	–	Suppressor *see note 2	3	6	031 00808 000
–	**CE-78**	Suppressor *see note 2	3	8	024 26599 000
–	**CE-79**	Jumper, Terminal Block	–	3	025 31475 000
80	**CE-80**	Insulator, Display	4	1	071 01113 000
82	–	Screw, Mach. Pan HD Recd, 1/4-20 x 3/4 lg.	3	1	021 03748 000
–	**CE-82**	Screw, Mach. Pan HD Recd, 1/4-20 x 1/2 lg.	–	4	021 01853 000
83	–	Nut, Hex, 1/4-20	3	1	021 00451 000
–	**CE-83**	Nut, Hex, 1/4-20	3	4	021 00451 000
84	–	Lockwasher, Internal Tooth, 1/4	3	1	021 01148 000
–	**CE-84**	Lockwasher, Internal Tooth, 1/4	3	4	021 01148 000
85	**CE-85**	Micro Board Control *see note 1	3	1	031 01065 002
104	**–**	Relay Control Board	3	1	031 01199 000
–	**CE-104**	Relay Control Board	3	1	031 01199 001
105	–	Label, Fuse	3	1	025 29931 000
–	**CE-105**	Terminal Block	3	26	025 31442 000

MAIN CONTROL PANEL – COMMON PARTS (continued)

STANDARD & NEMA 4

CE - EUROPEAN COMPLIANCE – UK & GERMAN

STD. ITEM NO.	CE ITEM NO.	DESCRIPTION	FIG.	QTY.	PART NO.
–	**CE-106**	Terminal Block	3	3	025 31443 000
107	–	Fuse Holder	2	1	025 13991 000
	CE-107	Terminal Block	3	5	025 31476 000
108	–	Screw, Tap, type B hex head, #10 x 1/2 lg.	3	4	021 14786 000
–	**CE-108**	Terminal Block End Cover	3	1	025 28490 000
–	**CE-109**	Terminal Block End Cover	3	2	025 31477 000
151	**CE-151**	EPROM, Programmed *see note 5	3	1	031 02513 001
152	–	Keypad, (English & UK)	4	1	024 26193 000
–	**CE-152**	Keypad, (English & UK)	4	1	024 26913 000
–	**CE-152**	Keypad, (German)	4	1	024 26543 000
154	–	Digital Input Control Board	3	1	031 00935 000
–	**CE-166**	Digital Input Control Board	3	1	031 00935 001
–	**CE-154**	Label, Wiring, Micro Panel	-	1	035 11967 000
155	–	Jumper Terminal Block	3	2	025 13984 000
–	**CE-167**	Jumper Terminal Block	3	6	025 31474 000
–	**CE-155**	Plug, Liquid Tight for 11/16 clearance hole	-	12	025 31473 000
156	–	Micro Panel Enclosure and Door	2	1	371 01288 301
–	**CE-1**	Micro Panel Enclosure and Door	2	1	371 01472 301
–	**CE-156**	Nut, Lock for Knockout	-	12	021 18411 000
157	–	Fastener, Pawl, Adjustable Lock (standard code)	4	1	021 17252 000
–	**CE-157**	Harness, Shielded Cable	-	1	571 01472 463
158	–	Switch, Rocker	4	1	024 23143 000
–	**CE-158**	Harness, Shielded Cable	-	1	571 01472 466
–	**CE-159**	Harness, Shielded Cable	-	1	571 01472 473
160	**CE-22**	Label, Identification	4	1	035 07878 000
–	**CE-160**	Harness, Shielded Cable	-	1	571 01472 475
161	**CE-30**	Cable, Ribbon-Keypad	2	1	031 00950 000
–	**CE-161**	Harness, Shielded Cable	-	1	571 01472 477
162	**CE-32**	Cable,Ribbon-Display	2	1	031 00952 000
–	**CE-162**	Harness, Shielded Cable	-	1	571 01472 424
163	–	Wiring, Harness, Door	4	1	571 01288 211
–	**CE-75**	Wiring, Harness, Door	4	1	571 01472 211
–	**CE-163**	Harness, Shielded Cable	-	1	571 01472 426

MAIN CONTROL PANEL – COMMON PARTS (continued)

STANDARD & NEMA 4

CE - EUROPEAN COMPLIANCE – UK & GERMAN

STD. ITEM NO.	CE ITEM NO.	DESCRIPTION	FIG.	QTY.	PART NO.
–	**CE-164**	Plug, Liquid Tight for 11/16 clearance hole	–	2	025 32579 000
–	**CE-165**	Nut, Lock for Knockout	–	2	021 18678 000
–	**CE-168**	Nameplate, Data Stamping	–	1	071 01481 000

OPTIONS				
–	Control, Remote Reset (customer supplied) *see note 3	–	1	031 00814 000
–	Card File (customer option)	–	1	031 00827 000
–	IC, Real Time Clock-U16	–	1	031 00955 000
–	Voltage Transient Protection Module for Micro Board RS-485 serial port *see note 4	–	1	031 01586 000
–	Complete Control Panel Standard (NEMA1)	–	1	371 01288 102
–	Complete Control Panel CE Mark / UK English (NEMA4)	–	1	371 01472 104
–	Complete Control Panel CE Mark / German	–	1	371 01472 106

MICROBOARD	EPROM P/N	EPROM VERSION	EPROM CHECKSUM	MEGS
031 01065 000	031 01417 001	A.02F.03.500.02	3775	1
031 01065 001	031 01417 001	A.02F.03.500.02	3775	1
031 01065 002	031 02513 001	A.02F.08	6643	2

NOTES:

1. Replacement Micro Boards are supplied without EPROM. Remove EPROM from defective board and use in replacement board.
2. Suppressors are shipped loose for field use to place across the coil of any relay or contactor connected to the control panel or its single-phase power supply, including the application of:

   Alarm Circuit Relays

   Pump Starter (contactor)

   Flow Switch Inputs

   BAS Inputs

   Quantity of six (6) suppressors shipped with domestic units

   Quantity of eight (8) suppressors shipped with overseas units
3. If it is desired to remotely reset both the leaving water temperature setpoint and the load limit setpoint, two (2) remote reset boards are required. Otherwise, only one (1) is required.
4. Only used on units equipped with ISN Fax-4500 BAS connected to RS-485 serial port TB7. If Voltage Transient protection module is being installed for the first time, order kit 371-01477-000. Kit includes module and installation instructions.
5. EPROM only works with 031-01065-002 micro board. If micro board in unit does not match this P/N, replacement is required.

MAIN CONTROL PANEL – ELECTRICAL CONNECTIONS

MAIN CONTROL PANEL ELECTRICAL CONNECTIONS				
APPLICATION	**POSITION**	**PINS**	**PLUG PART NO.**	**PIN PART NO.**
Micro Board	J3	2	025 21136 000	025 19674 000
	J8	4	025 21138 000	025 19674 000
	J17	15	025 28385 000	025 28386 000
	J19	12	025 28384 000	025 28386 000
	J21	9	025 28383 000	025 28386 000
	J22	6	025 28382 000	025 28386 000
I/O Expansion Board	J1	2	025 29130 000	025 28386 000
	J3	2	025 29130 000	025 28386 000
	J4	6	025 28382 000	025 28386 000
	J5	4	025 28959 000	025 28386 000
	J6	3	025 29185 000	025 28386 000
	J7	2	025 21136 000	025 19674 000
	J8	6	025 28382 000	025 28386 000
Power Supply Board	J1	3	025 21137 000	025 32506 000
	J2	4	025 21138 000	025 19674 000
	J3	2	025 21136 000	025 32506 000
	J4	3	025 21137 000	025 19674 000
	J6	2	025 29130 000	025 28386 000
Digital Board	J2	3	025 21137 000	025 19674 000
Relay Board	J2	2	025 21136 000	025 19674 000

DANGLING CONNECTOR (connects door harness with main panel harness)				
APPLICATION	**POSITION**	**PINS**	**DESCRIPTION**	**PART NO.**
Micropanel	Door	9	Connector	025 21192 000
	Door	9	Pin	025 22214 000
	Door	9	Mate	025 21191 000
	Door	9	Socket	025 22215 000
Insulated spring spade terminal for shielded cable drain wire connection to panel				025 19407 000
Un insulated, straight push on connection terminal with insulation support clamp				025 06874 000

UNIT THERMISTORS AND PRESSURE TRANSDUCER CONNECTIONS		
APPLICATION	**DESCRIPTION**	**PART NO.**
Shielded Cable, Sensor End	Two pin housing (plug) (for Thermistor connection)	025 28951 000
	Three pin housing (plug) (for Pressure Transducer)	025 28954 000
	Rubber collars to fit over wire insulation	025 28950 000
	Contact receptacles (metal terminals)	025 28952 000
Thermistor	Two pin housing (cap) for sensor end (supplied with thermistor)	025 28948 000
	Rubber collars to fit over wire insulation (supplied with thermistor)	025 28950 000
	Contact tabs (metal terminals) (supplied with thermistor)	025 28949 000
Transducer	Three pin housing (cap) for transducer (supplied with transducer)	025 28953 000
	Rubber collars to fit over wire insulation (supplied with transducer)	025 28950 000
	Contact tabs (metal terminals) (supplied with transducer)	025 28949 000

HARNESS AND SENSOR CONNECTIONS

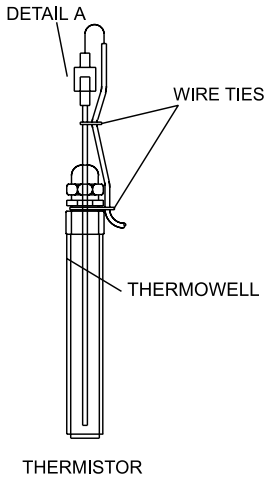


FIG. 5 – THERMISTOR AND THERMOWELL ASSEMBLY

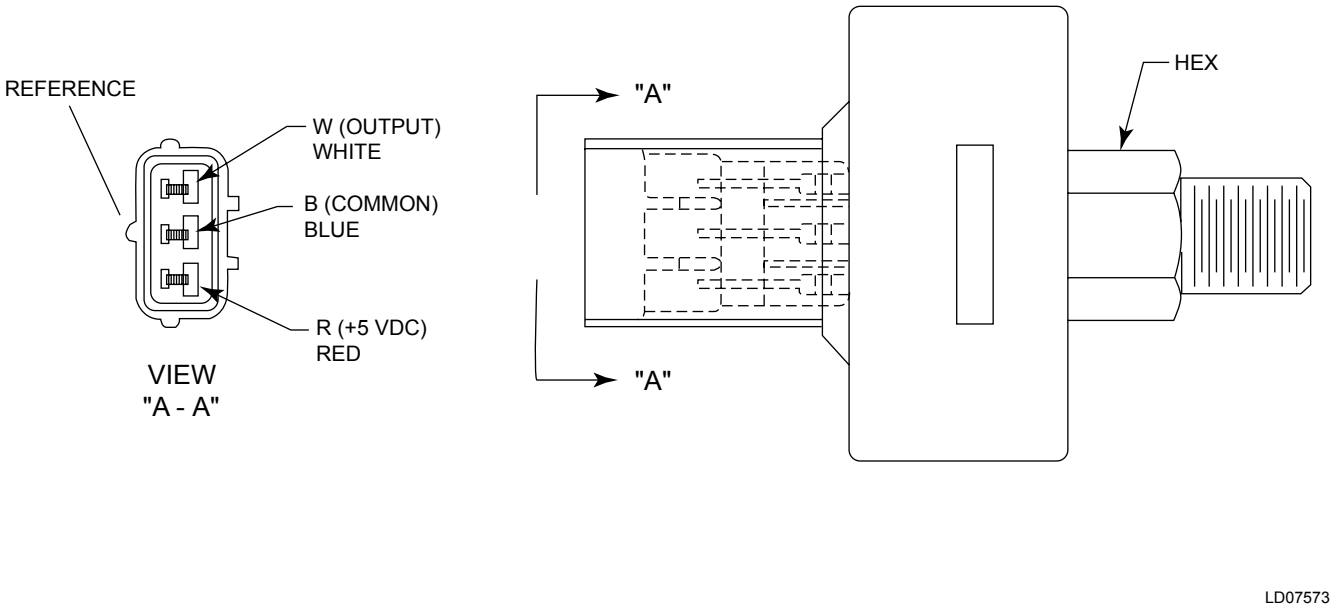
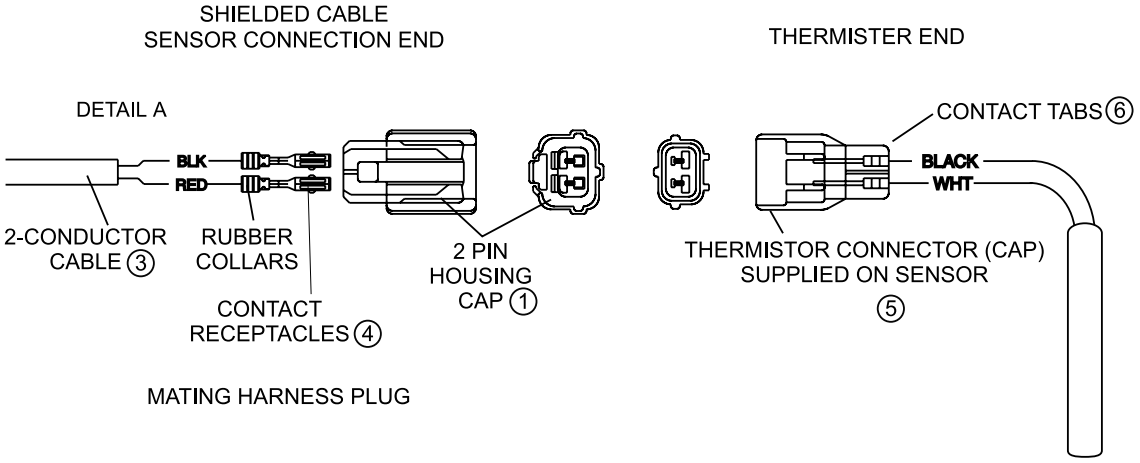


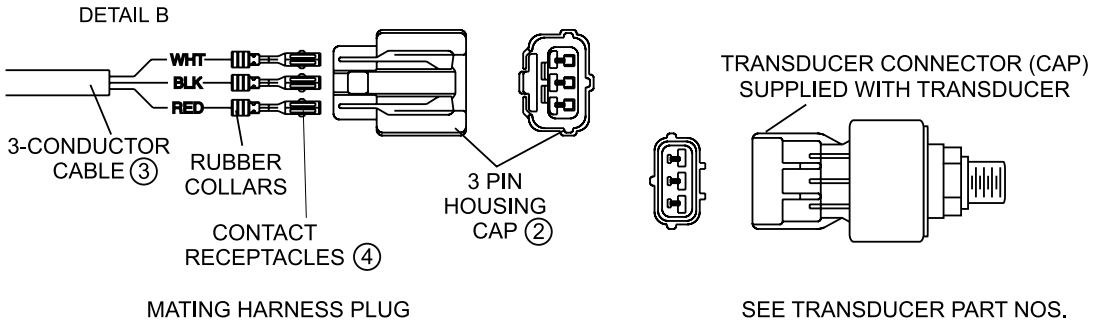
FIG. 6 – PROPER WIRING FOR TRANDUCERS

HARNESS AND SENSOR CONNECTIONS

THERMISTOR CONNECTIONS



TRANSDUCER CONNECTIONS

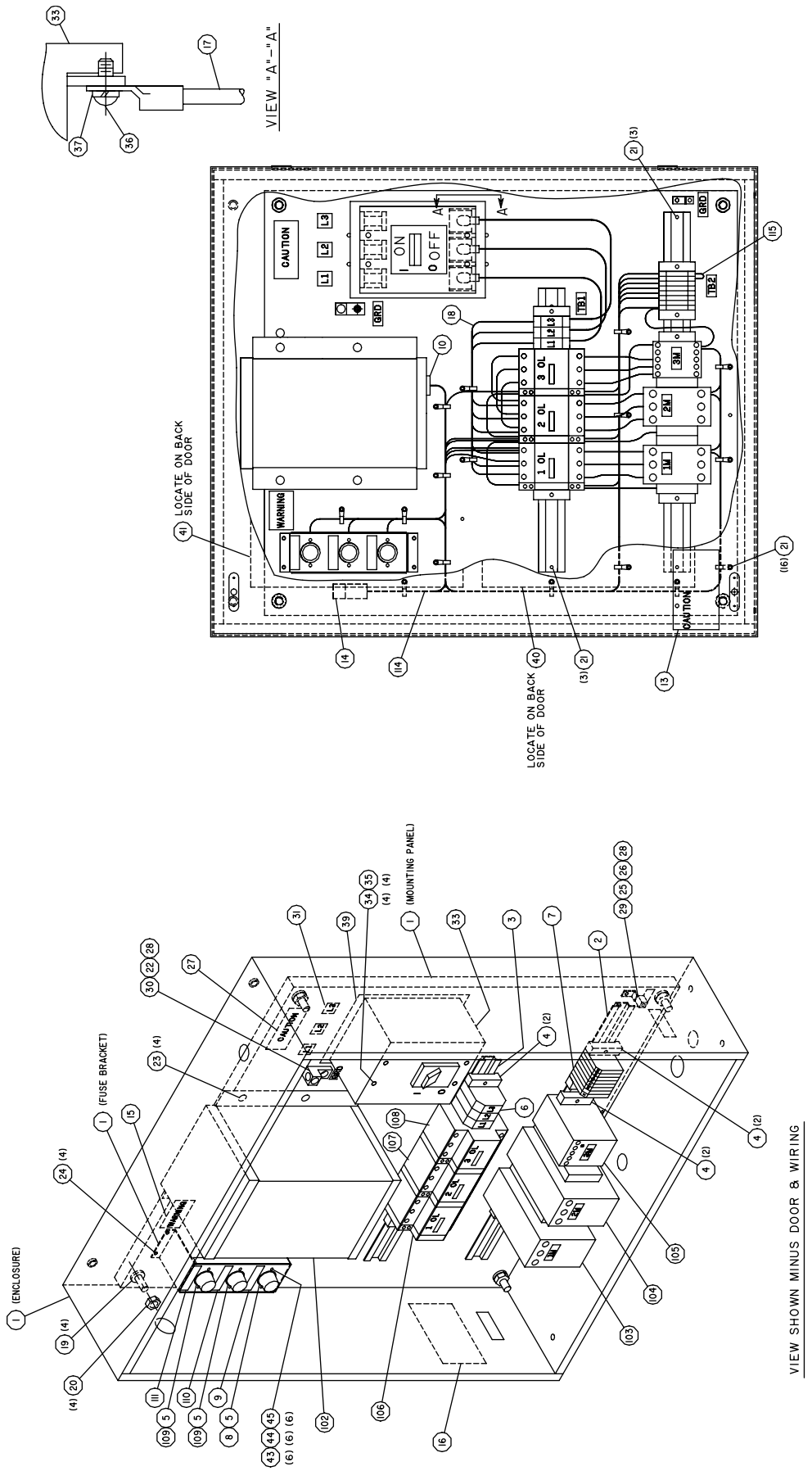


LD03292_V2

ITEM	YORK P/N
1	025-28951-000
2	025-28954-000
3	025-28950-000
4	025-28952-000
5	025-28948-000
6	025-28949-000

FIG. 7 – CONDUCTOR AND HOUSING ASSEMBLY

POWER PANEL - 60 HZ STANDARD UNITS



LD07574

FIG. 8 – 60 HZ STANDARD UNITS

POWER PANEL - 60 HZ STANDARD UNITS (CONTINUED)

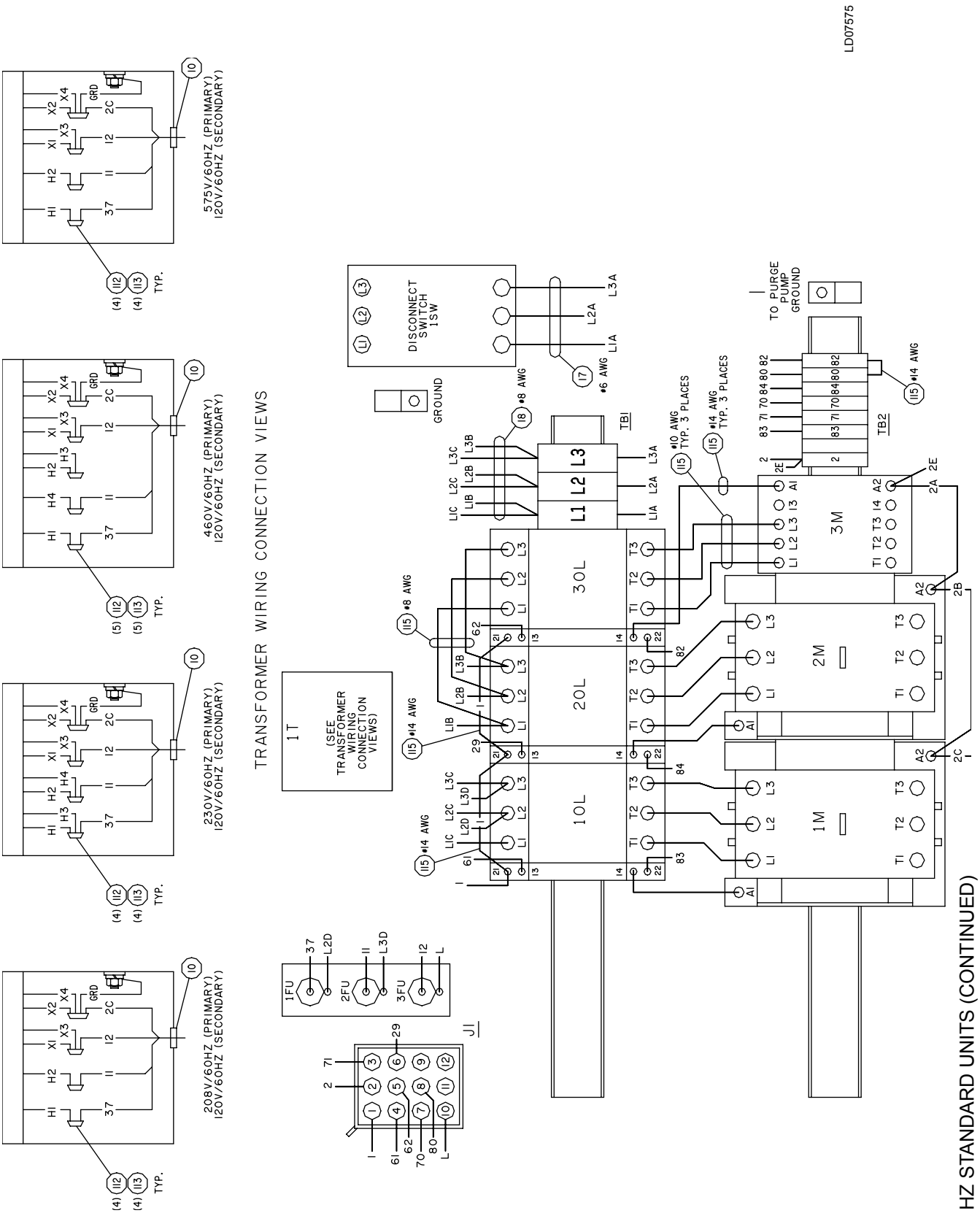


FIG. 9 – 60 HZ STANDARD UNITS (CONTINUED)

60 HZ STANDARD UNITS (CONTINUED)

POWER PANEL MAIN COMPONENTS 60 HZ STANDARD UNITS							
DESCRIPTION	ITEM NO.	VOLTAGE	QTY.	MODELS (HOT WATER AND STEAM)			
				YIA 1A1 THRU YIA 2B1	YIA 3B2 THRU YIA 5C3	YIA 6C4 AND YIA 7D1	YIA 7D2 AND YIA 8D3
Transformer (1T)	102	208	1	025 28664 001	025 28664 001	025 28664 001	025 28664 001
		230/460	1	025 28664 002	025 28664 002	025 28664 002	025 28664 002
		575	1	025 28664 004	025 28664 004	025 28664 004	025 28664 004
Contactor (1M) Solution Pump	103	208/230	1	024 25584 000	024 25584 000	024 25584 000	024 25585 000
		460	1	024 25521 000	024 25526 000	024 25526 000	024 25526 000
		575	1	024 25521 000	024 25521 000	024 25521 000	024 25526 000
Contactor (2M) Refrigerant Pump	104	208/230	1	024 25584 000	024 25584 000	024 25584 000	024 25584 000
		460/575	1	024 25521 000	024 25521 000	024 25521 000	024 25521 000
Contactor (3M) Purge Pump	105	ALL	1	024 25521 000	024 25521 000	024 25521 000	024 25521 000
Motor Protector (1OL) Solution Pump	106	208	1	024 27282 000	024 26187 000	024 26187 000	024 25581 000
		230	1	024 27282 000	024 27284 000	024 27284 000	024 25581 000
		460	1	024 27281 000	024 27268 000	024 27268 000	024 27283 000
		575	1	024 25578 000	024 25579 000	024 25579 000	024 25587 000
Motor Protector (2OL) Refrigerant Pump	107	208	1	024 27282 000	024 27282 000	024 27282 000	024 27282 000
		230	1	024 27282 000	024 27282 000	024 27282 000	024 27282 000
		460	1	024 27281 000	024 27281 000	024 27281 000	024 27281 000
		575	1	024 25578 000	024 25578 000	024 25578 000	024 27267 000
Motor Protector (3OL) Purge Pump	108	208/230	1	024 27279 000	024 27279 000	024 27279 000	024 27279 000
		460/575	1	024 27278 000	024 27278 000	024 27278 000	024 27278 000
Fuse, Primary 1FU & 2FU	109	208	2	025 27972 000	025 27972 000	025 27972 000	025 27972 000
		230	2	025 27971 000	025 27971 000	025 27971 000	025 27971 000
		460/575	2	025 27922 000	025 27922 000	025 27922 000	025 27922 000
Label, Fuse (2FU)	110	208	1	035 09710 002	035 09710 002	035 09710 002	035 09710 002
		230	1	035 09710 004	035 09710 004	035 09710 004	035 09710 004
		460/575	1	035 09710 006	035 09710 006	035 09710 006	035 09710 006
Label, Fuse (1FU)	111	208	1	035 09710 003	035 09710 003	035 09710 003	035 09710 003
		230	1	035 09710 005	035 09710 005	035 09710 005	035 09710 005
		460/575	1	035 09710 007	035 09710 007	035 09710 007	035 09710 007
Ferrule	112	208/230/575	4	025 10372 000	025 10372 000	025 10372 000	025 10372 000
		460	5	025 10372 000	025 10372 000	025 10372 000	025 10372 000
Insulator	113	208/230/575	4	025 10371 000	025 10371 000	025 10371 000	025 10371 000
		460	5	025 10371 000	025 10371 000	025 10371 000	025 10371 000
Main Harness	114	ALL	1	571 01410 221	571 01410 221	571 01410 221	571 01410 221
Loose Harness	115	ALL	1	571 01410 211	571 01410 211	571 01410 211	571 01410 211

SEE FIGS. 8 & 9

60 HZ STANDARD UNITS (CONTINUED)

POWER PANEL MAIN COMPONENTS – 60 Hz STANDARD UNITS								
DESCRIPTION	ITEM NO.	VOLTAGE	QTY.	MODELS (HOT WATER AND STEAM)				
				YIA 8E1	YIA 9E2	YIA 10E3	YIA 12F1	YIA 13F2 AND YIA 14F3
Transformer (1T)	102	208	1	025 28664 001	025 28664 001	025 28664 001	025 28664 001	025 28664 001
		230/460	1	025 28664 002	025 28664 002	025 28664 002	025 28664 002	025 28664 002
		575	1	025 28664 004	025 28664 004	025 28664 004	025 28664 004	025 28664 004
Contactor (1M) Solution Pump	103	208/230	1	024 25585 000	024 25585 000	024 25585 000	024 25585 000	024 25585 000
		460	1	024 25526 000	024 25584 000	024 25584 000	024 25526 000	024 25584 000
		575	1	024 25526 000	024 25526 000	024 25526 000	024 25526 000	024 25526 000
Contactor (2M) Refrigerant Pump	104	208/230	1	024 25584 000	024 25584 000	024 25585 000	024 25585 000	024 25585 000
		460	1	024 25521 000	024 25526 000	024 25526 000	024 25526 000	024 25526 000
		575	1	024 25521 000	024 25521 000	024 25526 000	024 25526 000	024 25526 000
Contactor (3M) Purge Pump	105	ALL	1	024 25521 000	024 25521 000	024 25521 000	024 25521 000	024 25521 000
Motor Protector (1OL) Solution Pump	106	208	1	024 25581 000	024 25582 000	024 25582 000	024 25581 000	024 25582 000
		230	1	024 25581 000	024 25582 000	024 25582 000	024 25581 000	024 25582 000
		460	1	024 27283 000	024 27284 000	024 27284 000	024 27283 000	024 27284 000
		575	1	024 25587 000	024 25580 000	024 25580 000	024 25587 000	024 25580 000
Motor Protector (2OL) Refrigerant Pump	107	208	1	024 27282 000	024 26187 000	024 25581 000	024 25581 000	024 25581 000
		230	1	024 27282 000	024 27284 000	024 25581 000	024 25581 000	024 25581 000
		460	1	024 27281 000	024 27268 000	024 27283 000	024 27283 000	024 27283 000
		575	1	024 25578 000	024 25579 000	024 25587 000	024 25587 000	024 25587 000
Motor Protector (3OL) Purge Pump	108	208/230	1	024 27279 000	024 27279 000	024 27279 000	024 27279 000	024 27279 000
		460/575	1	024 27278 000	024 27278 000	024 27278 000	024 27278 000	024 27278 000
Fuse, Primary 1FU & 2FU	109	208	2	025 27972 000	025 27972 000	025 27972 000	025 27972 000	025 27972 000
		230	2	025 27971 000	025 27971 000	025 27971 000	025 27971 000	025 27971 000
		460/575	2	025 27922 000	025 27922 000	025 27922 000	025 27922 000	025 27922 000
Label, Fuse (2FU)	110	208	1	035 09710 002	035 09710 002	035 09710 002	035 09710 002	035 09710 002
		230	1	035 09710 004	035 09710 004	035 09710 004	035 09710 004	035 09710 004
		460/575	1	035 09710 006	035 09710 006	035 09710 006	035 09710 006	035 09710 006
Label, Fuse (1FU)	111	208	1	035 09710 003	035 09710 003	035 09710 003	035 09710 003	035 09710 003
		230	1	035 09710 005	035 09710 005	035 09710 005	035 09710 005	035 09710 005
		460/575	1	035 09710 007	035 09710 007	035 09710 007	035 09710 007	035 09710 007
Ferrule	112	208/230/575	4	025 10372 000	025 10372 000	025 10372 000	025 10372 000	025 10372 000
		460	5	025 10372 000	025 10372 000	025 10372 000	025 10372 000	025 10372 000
Insulator	113	208/230/575	4	025 10371 000	025 10371 000	025 10371 000	025 10371 000	025 10371 000
		460	5	025 10371 000	025 10371 000	025 10371 000	025 10371 000	025 10371 000
Main Harness	114	ALL	1	571 01410 221	571 01410 221	571 01410 221	571 01410 221	571 01410 221
Loose Harness	115	ALL	1	571 01410 211	571 01410 211	571 01410 211	571 01410 211	571 01410 211

SEE FIGS. 8 & 9

60 HZ STANDARD UNITS (CONTINUED)

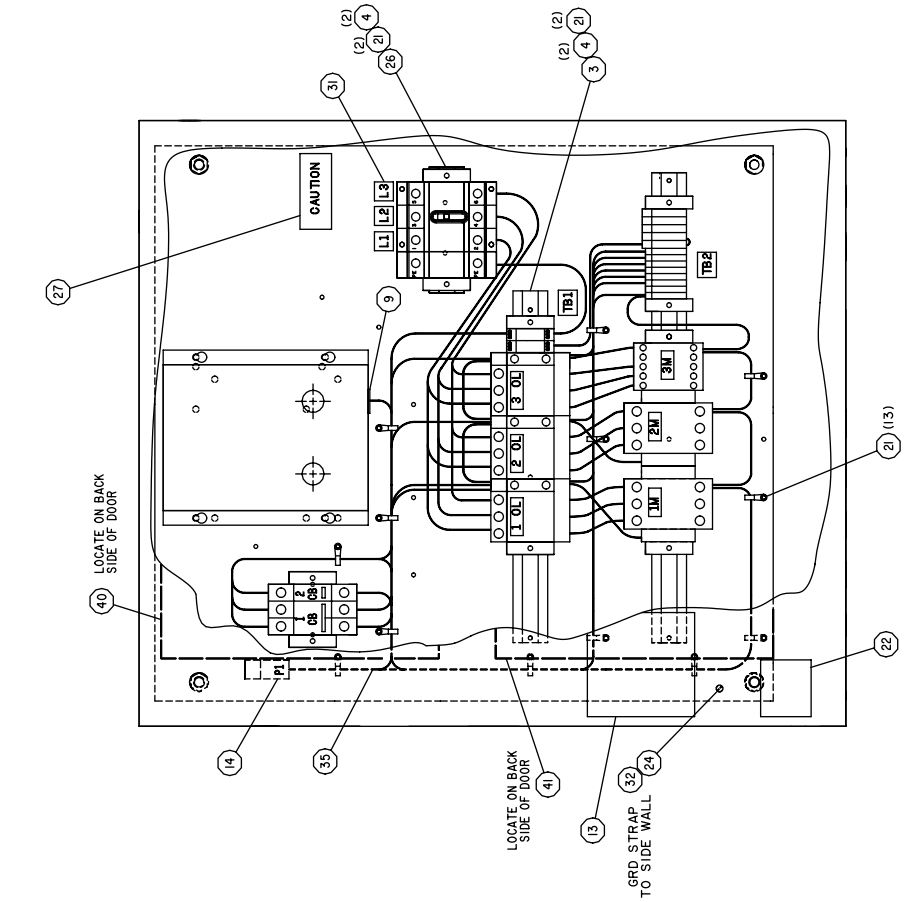
POWER PANEL COMPONENTS

MISCELLANEOUS PARTS for 60Hz STANDARD UNITS (All Models)

ITEM	DESCRIPTION	FIG.	QTY.	PART NO.
1	Enclosure and Door	8	1	371 01290 301
2	Contactor mounting rail	8	1	071 01290 303
3	Overload mounting rail	8	1	071 01290 304
4	Rail clamp	8	6	025 29189 000
5	Fuseholder	8	3	025 17407 000
6	Terminal Block, 3 pole	8	1	025 29166 000
7	Terminal Block, 8 pole	8	1	025 32555 000
8	Fuse, 10 amp	8	1	025 27971 000
9	Label, Fuse (3FU)	8	1	035 09710 001
10	Snap Bushing	9	1	025 10209 000
13	Label, Caution	8	1	035 03908 000
14 *	Housing, Plug, 12 pin universal	9	1	025 21196 000
15	Label, Warning	8	1	035 12603 000
16	Nameplate (unstamped)	8	1	071 02092 000
17	Harness, Power Disconnect	9	1	571 01410 213
18	Harness, Power Overload	8	1	571 01290 221
19	Lockwasher, Internal Tooth 3/8”	8	4	021 01155 000
20	Nut, Hex 3/8 16	8	4	021 00467 000
21	Screw, Tap Pan Head, #10-x 1/2”	8	22	021 13789 000
22	Nut, KEPS 1/4-20	8	1	021 17269 000
23	Screw, SEMS, #10-24 x 1/2”	8	4	021 17596 000
24	Screw, Tap, Serrated Head, #8 x 1/2”	8	4	021 12889 000
25	Lockwasher, Internal Tooth #10	8	1	021 01137 000
26	Nut, Hex #10-24	8	1	021 08282 000
27	Label, Caution	8	1	035 05548 000
28	Label, Ground	8	2	030 15990 000
29	Terminal Ground Lug	8	1	025 29194 000
30	Terminal Lug	8	1	025 19985 000
31	Label, Identification Input	8	1	035 09316 000
33	Switch, Disconnect, 100 amp	8	1	024 25575 000
34	Screw, Pan Head,#8-32 x 3-1/2”	8	4	021 17662 000
35	Lockwasher, Tooth #8	8	4	021 01133 000
36	Screw, Round Head, 1/4-20 x 1”	8	3	021 01903 000
37	Lockwasher, Spring 1/4”	8	3	021 08276 000
39	Insulator, Disconnect, 100 amp	8	1	025 29934 001
40	Label, Connection	8	1	035 14013 000
41	Label, Elementary	8	1	035 14012 000
43	Screw, Pan Head,#6-32 x 1/2”	8	6	021 01696 000
44	Lockwasher, Tooth #6	8	6	021 01132 000
45	Nut, Hex #6-32	8	6	021 08281 000

* Requires 9 pins, YORK Part Number 025-19673-000

60 HZ NEMA 4 UNITS



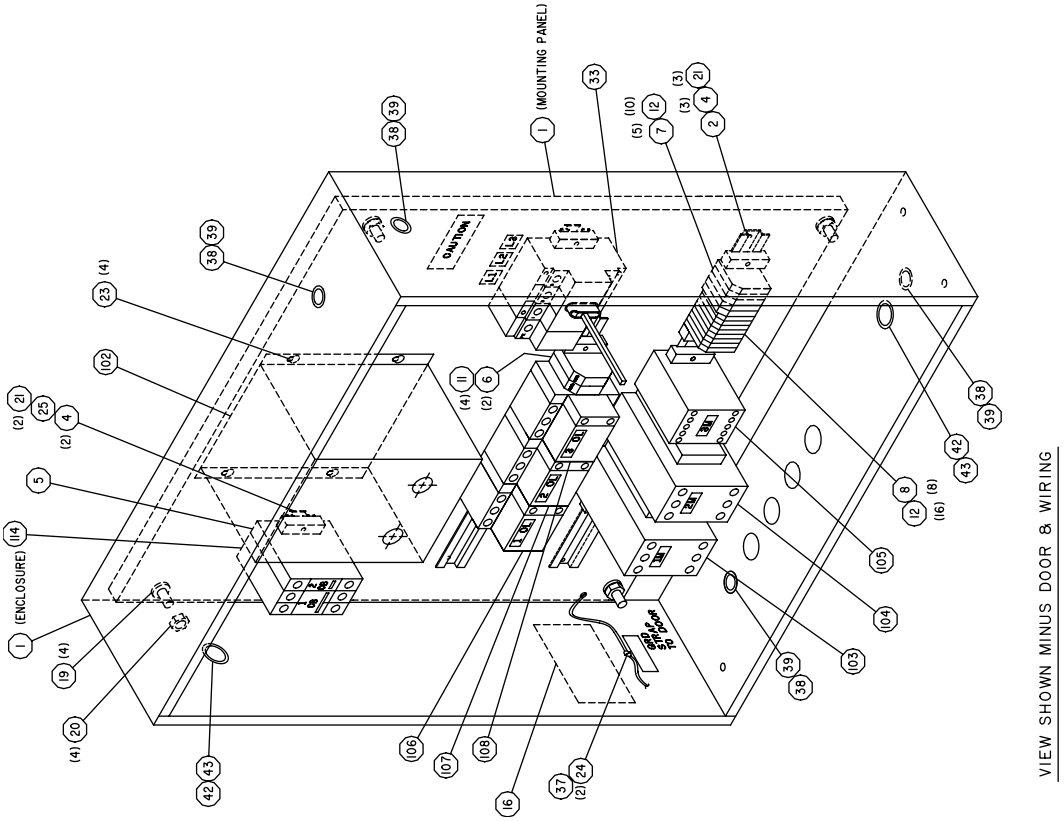


FIG. 10 – 60 HZ NEMA 4 UNITS

60 HZ NEMA 4 UNITS (CONTINUED)

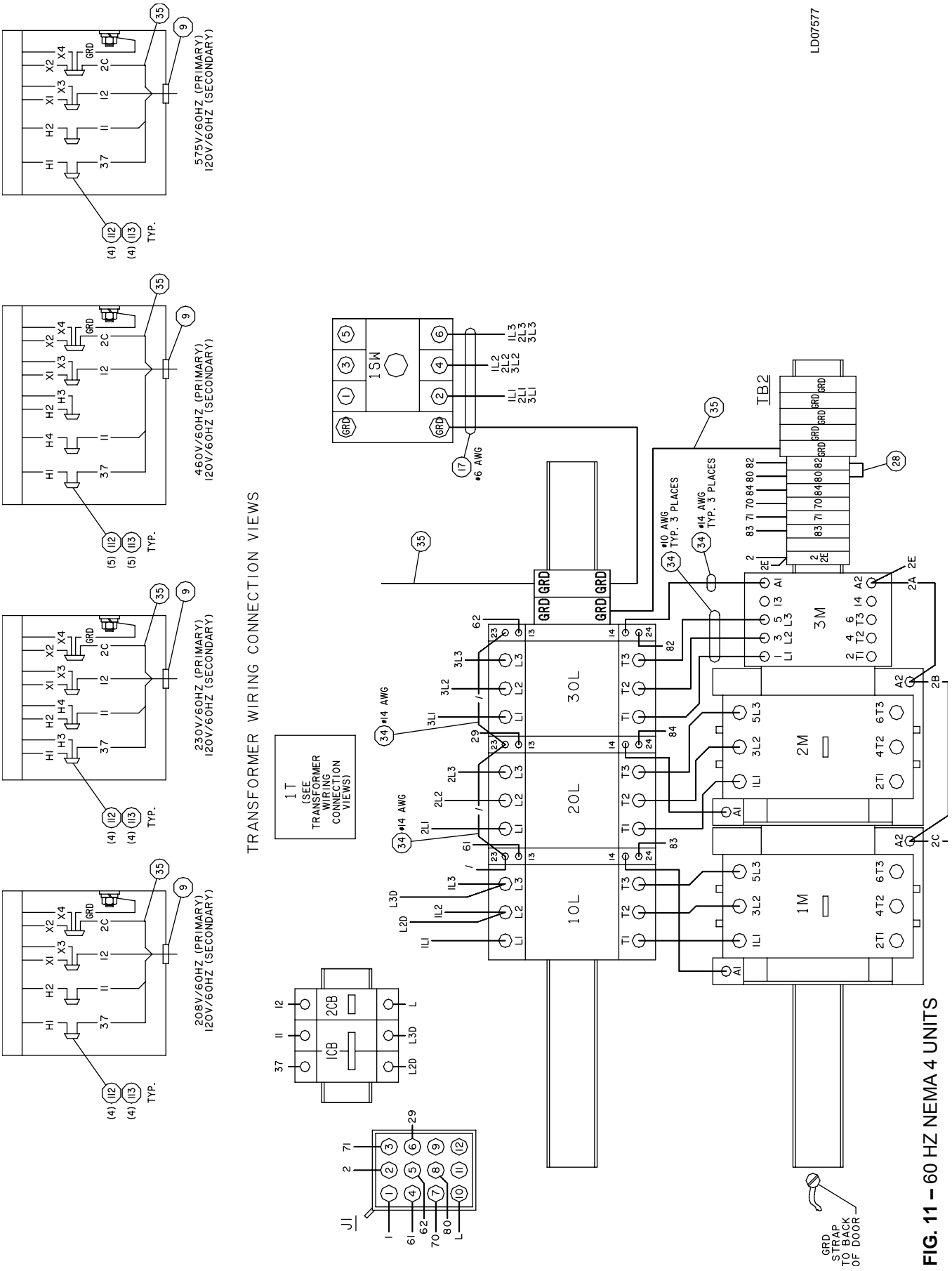


FIG. 11 – 60 HZ NEMA 4 UNITS

60 HZ NEMA 4 UNITS (CONTINUED)

POWER PANEL MAIN COMPONENTS – 60 Hz NEMA 4 PANELS							
DESCRIPTION	ITEM NO.	VOLTAGE	QTY.	MODELS (HOT WATER AND STEAM)			
				YIA-1A1 THRU YIA-2B1	YIA-3B2 THRU YIA-5C3	YIA-6C4 AND YIA-7D1	YIA-7D2 AND YIA-8D3
Transformer (1T)	102	208	1	025 28664 001	025 28664 001	025 28664 001	025 28664 001
		230/460	1	025 28664 002	025 28664 002	025 28664 002	025 28664 002
		575	1	025 28664 004	025 28664 004	025 28664 004	025 28664 004
Contactor (1M) Solution Pump	103	208/230	1	024 25584 000	024 25584 000	024 25584 000	024 25585 000
		460	1	024 25521 000	024 25526 000	024 25526 000	024 25526 000
		575	1	024 25521 000	024 25521 000	024 25521 000	024 25526 000
Contactor (2M) Refrigerant Pump	104	208/230	1	024 25584 000	024 25584 000	024 25584 000	024 25584 000
		460/575	1	024 25521 000	024 25521 000	024 25521 000	024 25521 000
Contactor (3M) Purge Pump	105	ALL	1	024 25521 000	024 25521 000	024 25521 000	024 25521 000
Motor Protector (1OL) Solution Pump	106	208	1	024 25587 000	024 26187 000	024 26187 000	024 25581 000
		230	1	024 25587 000	024 26187 000	024 26187 000	024 25581 000
		460	1	024 25579 000	024 25587 000	024 25587 000	024 25580 000
		575	1	024 25578 000	024 25579 000	024 25579 000	024 25587 000
Motor Protector (2OL) Refrigerant Pump	107	208/230	1	024 25587 000	024 25587 000	024 25587 000	024 25587 000
		460	1	024 25579 000	024 25579 000	024 25579 000	024 25579 000
		575	1	024 25578 000	024 25578 000	024 25578 000	024 25578 000
Motor Protector (3OL) Purge Pump	108	208/230	1	024 25576 000	024 25576 000	024 25576 000	024 25576 000
		460/575	1	024 25586 000	024 25586 000	024 25586 000	024 25586 000
Ferrule	112	208/230/575	4	025 10372 000	025 10372 000	025 10372 000	025 10372 000
		460	5	025 10372 000	025 10372 000	025 10372 000	025 10372 000
Insulator	113	208/230/575	4	025 10371 000	025 10371 000	025 10371 000	025 10371 000
		460	5	025 10371 000	025 10371 000	025 10371 000	025 10371 000
Circuit Breaker, 2 Pole	114	208	1	024 27837 000	024 27837 000	024 27837 000	024 27837 000
		230	1	024 27836 000	024 27836 000	024 27836 000	024 27836 000
		460	1	024 27835 000	024 27835 000	024 27835 000	024 27835 000
		575	1	024 30903 000	024 30903 000	024 30903 000	024 30903 000

SEE FIGS. 10 & 11

60 HZ NEMA 4 UNITS (CONTINUED)

POWER PANEL MAIN COMPONENTS – 60 HZ NEMA 4 PANELS								
DESCRIPTION	ITEM NO.	VOLTAGE	QTY.	MODELS (HOT WATER AND STEAM)				
				YIA-8E1	YIA-9E2	YIA-10E3	YIA-12F1	YIA-13F2 AND YIA-14F3
Transformer (1T)	102	208	1	025 28664 001	025 28664 001	025 28664 001	025 28664 001	025 28664 001
		230/460	1	025 28664 002	025 28664 002	025 28664 002	025 28664 002	025 28664 002
		575	1	025 28664 004	025 28664 004	025 28664 004	025 28664 004	025 28664 004
Contactor (1M) Solution Pump	103	208/230	1	024 25585 000	024 25585 000	024 25585 000	024 25585 000	024 25585 000
		460	1	024 25526 000	024 25584 000	024 25584 000	024 25526 000	024 25584 000
		575	1	024 25526 000	024 25526 000	024 25526 000	024 25526 000	024 25526 000
Contactor (2M) Refrigerant Pump	104	208/230	1	024 25584 000	024 25584 000	024 25585 000	024 25585 000	024 25585 000
		460	1	024 25521 000	024 25526 000	024 25526 000	024 25526 000	024 25526 000
		575	1	024 25521 000	024 25521 000	024 25526 000	024 25526 000	024 25526 000
Contactor (3M) Purge Pump	105	ALL	1	024 25521 000	024 25521 000	024 25521 000	024 25521 000	024 25521 000
Motor Protector (1OL) Solution Pump	106	208	1	024 25581 000	024 25582 000	024 25582 000	024 25581 000	024 25582 000
		230	1	024 25581 000	024 25582 000	024 25582 000	024 25581 000	024 25582 000
		460	1	024 25580 000	024 26187 000	024 26187 000	024 25580 000	024 26187 000
		575	1	024 25587 000	024 25580 000	024 25580 000	024 25587 000	024 25580 000
Motor Protector (2OL) Refrigerant Pump	107	208	1	024 25587 000	024 26187 000	024 25581 000	024 25581 000	024 25581 000
		230	1	024 25587 000	024 26187 000	024 25581 000	024 25581 000	024 25581 000
		460	1	024 25579 000	024 25587 000	024 25580 000	024 25580 000	024 25580 000
		575	1	024 25578 000	024 25579 000	024 25587 000	024 25587 000	024 25587 000
Motor Protector (3OL) Purge Pump	108	208/230	1	024 25576 000	024 25576 000	024 25576 000	024 25576 000	024 25576 000
		460/575	1	024 25586 000	024 25586 000	024 25586 000	024 25586 000	024 25586 000
Ferrule	112	208/230/575	4	025 10372 000	025 10372 000	025 10372 000	025 10372 000	025 10372 000
		460	5	025 10372 000	025 10372 000	025 10372 000	025 10372 000	025 10372 000
Insulator	113	208/230/575	4	025 10371 000	025 10371 000	025 10371 000	025 10371 000	025 10371 000
		460	5	025 10371 000	025 10371 000	025 10371 000	025 10371 000	025 10371 000
Circuit Breaker, 2 Pole	114	208	1	024 27837 000	024 27837 000	024 27837 000	024 27837 000	024 27837 000
		230	1	024 27836 000	024 27836 000	024 27836 000	024 27836 000	024 27836 000
		460	1	024 27835 000	024 27835 000	024 27835 000	024 27835 000	024 27835 000
		575	1	024 30903 000	024 30903 000	024 30903 000	024 30903 000	024 30903 000

SEE FIGS. 10 & 11

60 HZ NEMA 4 UNITS (CONTINUED)

POWER PANEL COMPONENTS

MISCELLANEOUS PARTS for 60Hz NEMA 4 PANELS (All Models)

ITEM	DESCRIPTION	FIG.	QTY.	PART NO.
1	Enclosure and Door	10	1	371 01473 301
2	Contactor mounting rail	10	1	071 01290 303
3	Overload mounting rail	10	1	071 01290 304
4	Rail clamp	10	9	025 29189 000
5	Circuit Breaker, 10 amp, Single Pole	10	1	024 26946 000
6	Terminal Block	10	2	025 31444 000
7	Terminal Block	10	5	025 31443 000
8	Terminal Block	10	8	025 31442 000
9	Snap Bushing	10	1	025 10209 000
11	Marker, Terminal Block	10	0.4	025 31445 000
12	Marker, Terminal Block	10	2.6	025 31446 000
13	Label, Caution	10	1	035 09999 000
14*	Housing, Plug, 12 pin universal	11	1	025 21196 000
16	Nameplate (unstamped)	10	1	071 02092 000
17	Harness, Power Disconnect	11	1	571 02091 212
19	Lockwasher, Internal Tooth 3/8”	10	4	021 01155 000
20	Nut, Hex 3/8-16	10	4	021 00467 000
21	Screw, Tap Pan Head, #10-x 1/2”	10	22	021 13789 000
22	Label, Warning	10	1	035 11929 000
23	Screw, SEMS, #10-24 x 1/2”	10	4	021 17596 000
24	Nut, KEPS,1/4-20	10	3	021 17269 000
25	Mounting Rail, Circuit Breaker	10	1	071 01473 303
26	Mounting Rail, Switch	10	1	071 01472 302
27	Label, Caution	10	1	035 05548 000
28	Jumper	11	1	025 31474 000
31	Label, Identification Input	10	1	035 09316 000
32	Grounding Strap	10	1	225 32812 001
33	Disconnect Switch	10	1	024 30981 000
34	Harness, Loose	11	1	571 02091 211
35	Harness, Main	10	1	571 02091 221
37	Grounding Strap	10	1	225 32812 002
38	Conduit Plug 1/2”	10	4	025 31400 000
39	Nut, 1/2”	10	4	021 18404 000
40	Label, Connection	10	1	035 14635 000
41	Label, Elementary	10	1	035 15156 000
42	Conduit Plug 3/4”	10	2	025 31401 000
43	Nut, 3/4”	10	2	021 18405 000

* Requires 9 pins, YORK Part Number 025-19673-000

50 HZ, 380/400/415 VOLT CE AND EUROPEAN COMPLIANCE UNITS

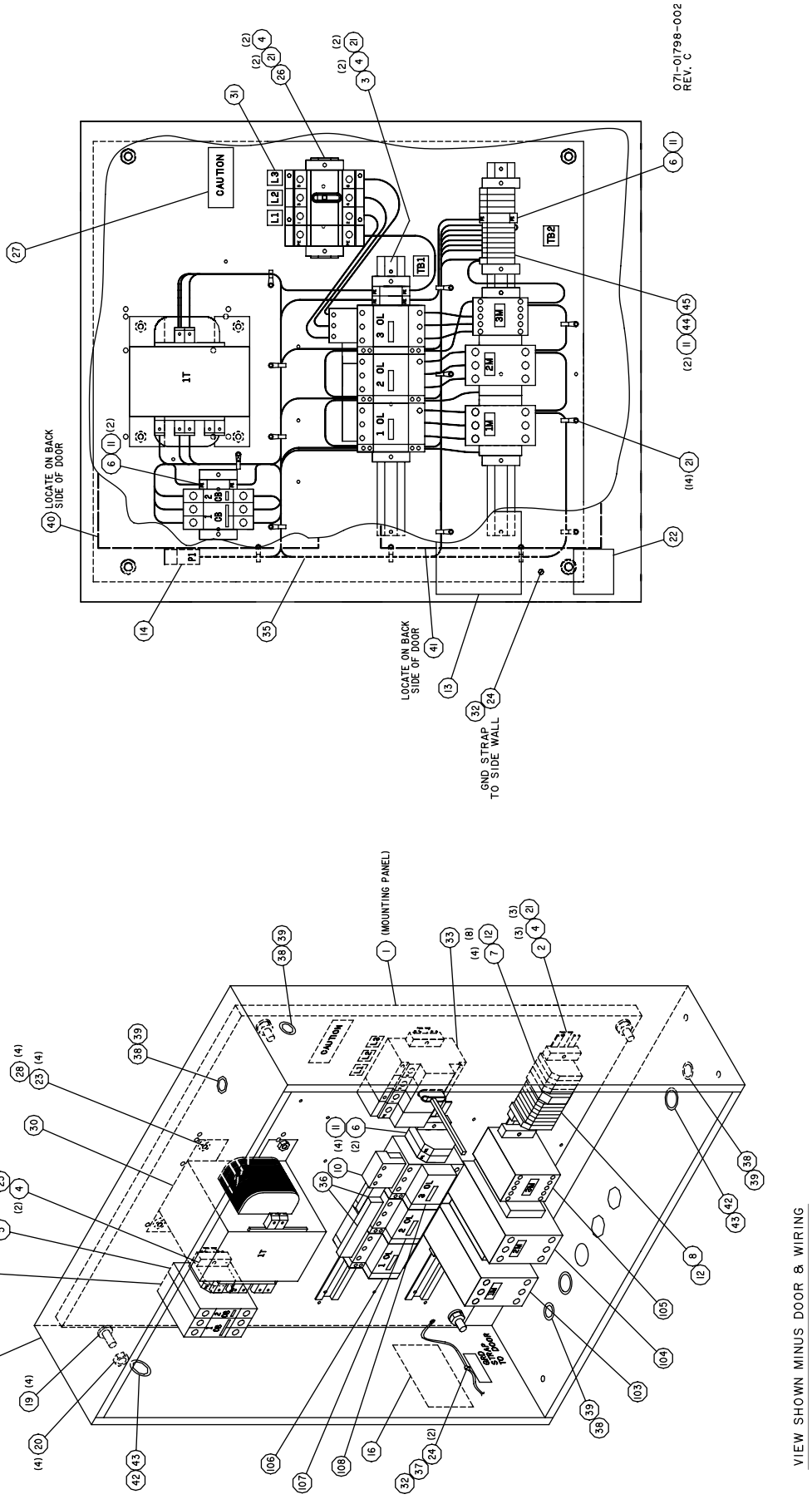


FIG. 12 – 50 HZ, 380/400 VOLT (CE AND EUROPEAN COMPLIANCE UNITS)

50 HZ, 380/400/415 VOLT CE AND EUROPEAN COMPLIANCE UNITS (CONT'D)

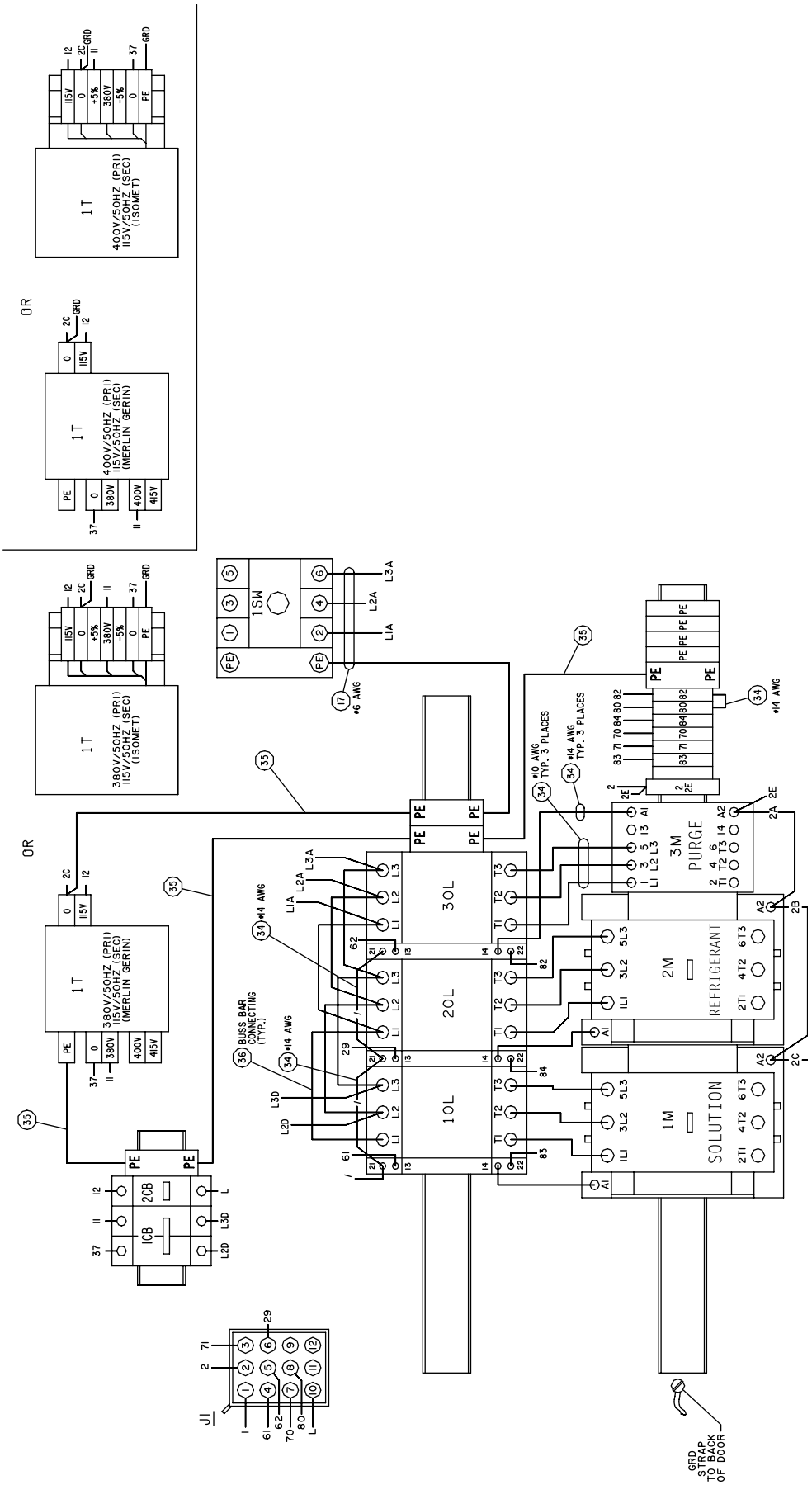


FIG. 13 – 50 HZ, 380/400 VOLT (CE AND EUROPEAN COMPLIANCE UNITS) (CONTINUED)

50 HZ, 380/400/415 VOLT CE AND EUROPEAN COMPLIANCE UNITS (CONT'D)

POWER PANEL MAIN COMPONENTS – 50 Hz, 380/400/415 Volt PANELS (CE, European Compliance)							
DESCRIPTION	ITEM NO.	QTY.	MODELS (HOT WATER AND STEAM)				
			YIA-1A1 THRU YIA-3B2	YIA-3B3 THRU YIA-5C3	YIA-6C4 THRU YIA-8D3	YIA-8E1	YIA-9E2 THRU YIA-14F3
Transformer (1T)	30	1	025 31438 000	025 31438 000	025 31438 000	025 31438 000	025 31438 000
Contactor (1M) Solution Pump	103	1	024 25526 000	024 25526 000	024 25585 000	024 25585 000	024 25585 000
Contactor (2M) Refrigerant Pump	104	1	024 25526 000	024 25526 000	024 25526 000	024 25584 000	024 25585 000
Contactor (3M) Purge Pump	105	1	024 25521 000	024 25521 000	024 25521 000	024 25521 000	024 25521 000
Motor Protector (1OL) Solution Pump	106	1	024 27281 000	024 27268 000	024 27282 000	024 27282 000	024 27282 000
Motor Protector (2OL) Refrigerant Pump	107	1	024 27281 000	024 27281 000	024 27281 000	024 27268 000	024 27282 000
Motor Protector (3OL) Purge Pump	108	1	024 27278 000	024 27278 000	024 27278 000	024 27278 000	024 27278 000
Sw. Disconnect (1SW)	33	1	024 30981 000	024 30981 000	024 30981 000	024 30981 000	024 30981 000
Circuit Breaker (2CB)	5	1	024 26946 000	024 26946 000	024 26946 000	024 26946 000	024 26946 000
Circuit Breaker (1CB) 6 amp, 2 Pole	18	1	024 26945 000	024 26945 000	024 26945 000	024 26945 000	024 26945 000

SEE FIGS. 12 & 13

50 HZ, 380/400/415 VOLT CE AND EUROPEAN COMPLIANCE UNITS (CONT'D)

POWER PANEL COMPONENTS				
MISCELLANEOUS PARTS for 50Hz, 380/400/415 Volt PANELS (CE, European Compliance) (All Models)				
ITEM	**DESCRIPTION**	**FIG.**	**QTY.**	**PART NO.**
1	Enclosure and Door	12	1	371 01473 301
2	Contactor mounting rail	12	1	071 01290 303
3	Overload mounting rail	12	1	071 01290 304
4	Rail clamp	12	9	025 29189 000
6	Terminal Block Ground	12	4	025 31444 000
7	Terminal Block	12	4	025 31443 000
8	Terminal Block	12	8	025 31442 000
10	Terminal Block , Wire	12	1	024 27269 000
11	Marker, Terminal Block	12	1	025 31445 000
12	Marker, Terminal Block	12	2.6	025 31446 000
13	Label, Caution	12	1	035 09999 000
14*	Housing, Plug, 12 pin universal (PI)	13	1	025 21196 000
16	Nameplate (unstamped)	12	1	071 01799 000
17	Harness, Power Disconnect	13	1	571 01473 213
19	Lockwasher, Internal Tooth 3/8"	12	4	021 01155 000
20	Nut, Hex 3/8-16	12	4	021 00467 000
21	Screw, Tap Pan Head, #10-x 1/2"	12	23	021 13789 000
22	Label, Warning	12	1	035 11929 000
23	Screw, #10-24 x 1/2"	12	4	021 17596 000
24	Nut, 1/4-20	12	3	021 17269 000
25	Mounting Rail, Circuit Breaker	12	1	071 01473 303
26	Mounting Rail, Switch	12	1	071 01472 302
27	Label, Caution	12	1	035 05548 000
28	Washer, Flat #10	12	4	021 05164 000
31	Label, Identification Input	12	1	035 09316 000
32	Grounding Strap	12	1	225 32812 001
34	Harness, Loose	13	1	571 01473 211
35	Harness, Main	12	1	571 01473 221
36	Bus Bar	12	2	024 27270 000
37	Grounding Strap	12	1	225 32812 002
38	Conduit Plug 1/2"	12	4	025 31400 000
39	Nut, 1/2"	12	4	021 18404 000
40	Label, Connection	12	1	035 14021 000
41	Label, Elementary	12	1	035 14020 000
42	Conduit Plug 3/4"	12	2	025 31401 000
43	Nut, 3/4"	12	2	021 18405 000
44	Terminal Block	12	1	025 31476 000
45	End Cover	12	1	025 28490 000
Not Shown	Housing, Plug Universal for Micropanel to Power Panel at Power Panel end	–	1	025 21192 000
	Male Pins For Above Housing	–	12	025 20919 000

* Requires 9 pin sockets, YORK Part Number 025-19673-000

SYSTEM CONTROL COMPONENT LOCATIONS

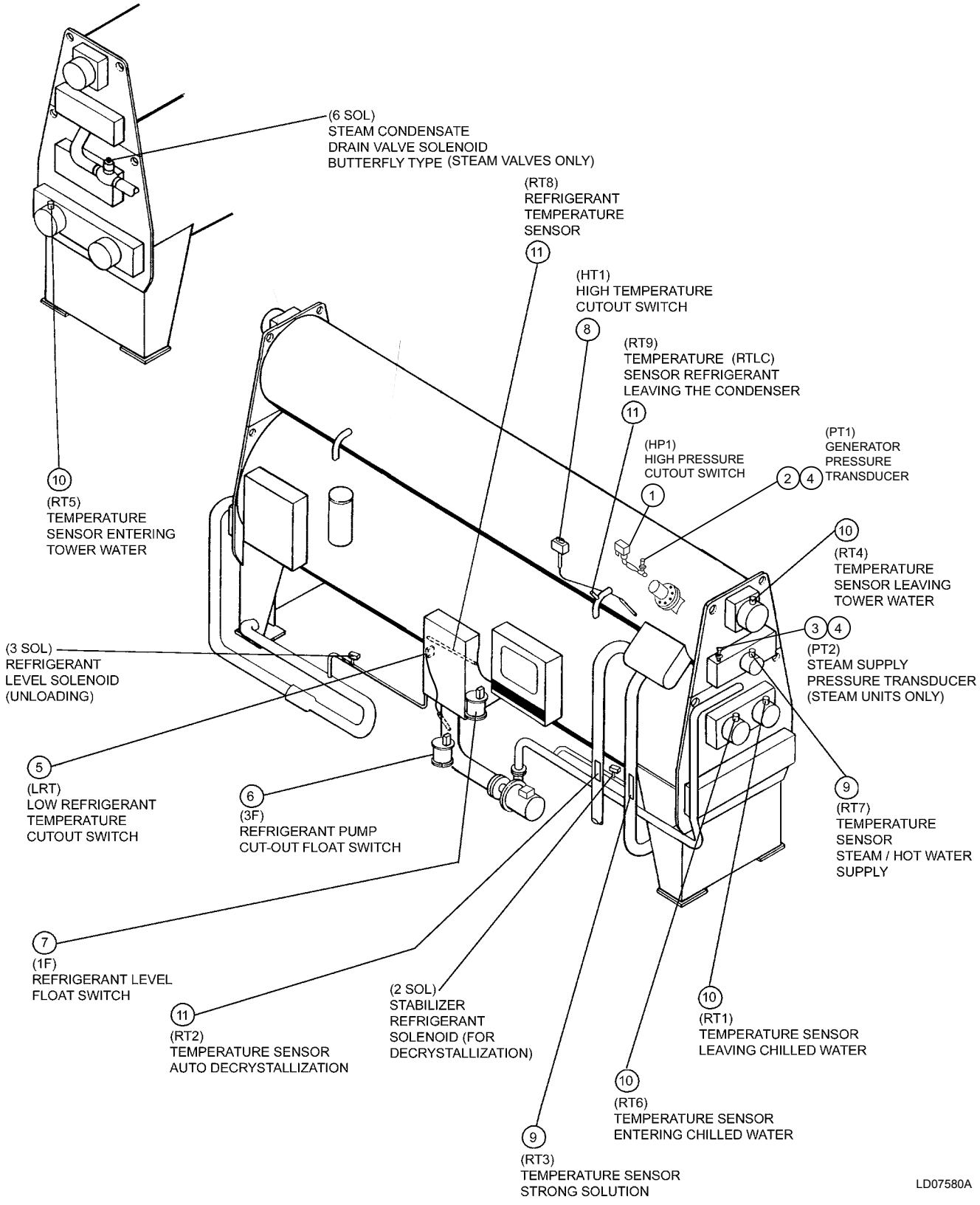


FIG. 14 – SYSTEM CONTROL COMPONENT LOCATIONS

SYSTEM CONTROL COMPONENTS

SYSTEM CONTROL COMPONENTS – Located throughout Unit					
ITEM	DESCRIPTION	VOLTAGE CODE	QTY.	PART NUMBER	
				HOT WATER	STEAM
1	High Pressure Cutout switch (HP1) (calibrated to 710 mm Hg Abs.) UEDA	ALL	1	224 25525 058	224 25525 058
1	High Pressure Cutout (HP1) UE	ALL	1	024R00132 000	024R00132 000
2	Generator Pressure Transducer (PT1)	ALL	1	025 29907 001	025 29907 001
3	Steam Supply Pressure Transducer (PT2)	ALL	1	—	025 29148 001
4	Isolator, Vilter steady mount (for use with PT1 & PT2)	ALL	*	026 30229 000	026 30229 000
5	Low Refrigerant Temp. Cutout switch (LRT)	ALL	1	225 30495 000	225 30495 000
6	Refrigerant Pump Cutout Float switch (3F)	ALL	1	024R00130 000	024R00130 000
7	Refrigerant Level Float switch (1F)	ALL	1	024R00131 000	024R00131 000
8	High Temperature Cutout switch (HT1)	ALL	1	025 29995 000	025 29995 000
9	Temperature Sensor (50,000 Ohms) (strong solution temp. & steam/hot water supply temp)	ALL	2	025 30457 000	025 30457 000
10	Temperature Sensor (3,000 Ohms) (Lower temperature areas of unit)	ALL	4	025 29964 000	025 29964 000
11	Temperature Sensor (3,000 Ohms) with threaded connector	ALL	3	025 28935 000	025 28935 000
—	Thermal Heat Conductive Compound (High temp. areas of unit)	ALL	1	013 03083 000	013 03083 000
—	Thermal Heat Conductive Compound (Low temp. areas of unit)	ALL	1	013 00898 000	013 00898 000
—	Suppressor	ALL	4	031 00808 000	031 00808 000
—	Varistor, Metal Oxide (used in Steam Valve Actuator)	ALL	2	031 01349 000	031 01349 000
—	Cable, 2 conductor gray cable with foil shield and drain wire 20 AWG - used for all unit thermistors	ALL	**	025 28701 002	025 28701 002
—	Cable, 3 conductor gray cable with foil shield and drain wire 20 AWG - used for all unit pressure transducers	ALL	**	025 28701 003	025 28701 003
—	Solenoid Valve DIN plug w/suppressor	ALL	2	025 37876 000	025 37876 000
—	Solenoid Valve DIN plug w/o suppressor	ALL	2	025 34047 000	025 34047 000

NOTES:

* Quantity varies as to type of unit. Steam Units require an additional Vilter at PT2.

** Order quantity is by the foot.

SEE FIG. 14

VALVES

VALVES			
TYPE	**DESCRIPTION**	**PART NUMBER**	**ILLUSTRATION**
Butterfly Lug Type	3 inch 4 inch 6 inch	022 10035 000 022 10036 000 022 10038 000	 00402VIP
Diaphragm	1/2” Complete (Style A) SS Socket Weld Valve Replacement Diaphragm for above valve Replacement Bonnet Assembly for above valve 1/2” Complete (Style B) SS Socket Weld Valve Replacement Diaphragm for above valve Replacement Bonnet Assembly for above valve 3/4” Complete (Style A) SS Socket Weld Valve Replacement Diaphragm for above valve Replacement Bonnet Assembly for above valve 3/4” Complete (Style B) SS Socket Weld Valve Replacement Diaphragm for above valve Replacement Bonnet Assembly for above valve 1/2” Complete (NPTI connections) Valve	022 10618 000 022 10057 000 022 10058 000 022 08869 052 022 09126 000 022 09125 000 022 10633 000 022 05125 000 022 10634 000 022 02457 000 022 10635 000 022 10636 000 022 02046 000	**STYLE B** 28731A **STYLE A** 29471A
2SOL Solenoid	Stabilizer Refrigerant Solenoid 1/2” (models 1A1-6C4) Replacement Solenoid Coil for above valve Spare parts kit for above valve Stabilizer Refrigerant Solenoid 3/4” (models 7D1-14F3) Replacement Solenoid Coil for above valve Spare parts kit for above valve	025 17885 000 025 18581 000 025 18583 000 025 17886 000 025 18582 000 025 18584 000	 29472A
3SOL Solenoid	Refrigerant Level Solenoid 1/2” (models 1A1-6C4) Replacement Solenoid Coil for above valve Spare parts kit for above valve Refrigerant Level Solenoid 3/4” (models 7D1-14F3) Replacement Solenoid Coil for above valve Spare parts kit for above valve	025 17885 000 025 18581 000 025 18583 000 025 17886 000 025 18582 000 025 18584 000	

VALVES (CONTINUED)

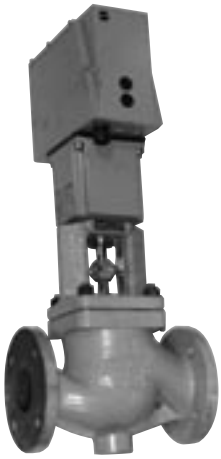
VALVES (Cont'd)			
TYPE	**DESCRIPTION**	**PART NUMBER**	**ILLUSTRATION**
50 HZ 6SOL Solenoid	Steam Condensate Drain Solenoid 2" (models 1A1-4B4) NEMA 4 & 7, group C&D version of above solenoid Steam Condensate Drain Solenoid 3" (models 4C1-14F3) NEMA 4 & 7, group C&D version of above solenoid ***NOTE:*** *For the 6SOL - Steam condensate drain solenoid valve, no replacement solenoid coils or spare kits available*	025 30458 000 025R00210 000 025 30459 000 025R00217 000	 00100VIP
60 HZ 6SOL Solenoid	Steam Condensate Drain Solenoid 2" (models 1A -4B4) NEMA 4 & 7, group C & D version of above solenoid Steam Condensate Drain Solenoid 3" (models 4C1-14F3) NEMA 4 & 7, group C & D version of above solenoid ***NOTE:*** *For the 6SOL - Steam condensate drain solenoid valve, no replacement solenoid coils or spare kits available.*	025 30461 000 025R00212 000 025 30462 000 025R00193 000	
Check	1/2 Inch Flapper (Swing type) (all units built after 1/1/99 will incorporate this valve)	022 09517 000	 28733A
Ball	1/2 Inch NPTI threaded connections (manometer isolation hand valve)	022 02558 000 (alternate P/N) 022 08885 005	 29469A
Sample	1/2 Inch Spindle Type O-Ring Repair Kit (2 outer and 2 inner O-rings)	022 08869 001 028 12271 001	 00405VIP
Spindle	1/2 Inch Spindle Valve O-Ring Repair Kit (1 outer and 2 inner O-rings)	022 08869 002 028 12271 002	 27089A

VALVES (CONTINUED)

2 WAY ANALOG STEAM VALVES

Type	SIZE (Inches)	Design Working Press. (PSIG)	YORK P/N Complete Valve	Replacement Actuator P/N	Fail Closed Design	Illustration
Globe	2 1/2	125	022R00142 000	022R00158 000	Yes	00404VIP
	3	125	022R00145 000			
	4	125	022R00148 000			
	6	125	022R00151 000			
Butterfly	4	150	022R00154 000	022R00159 000	No	LD12358
	6	150	022R00155 000	022R00160 000		
	8	150	022R00156 000			

2 & 3 WAY ANALOG HOT WATER VALVES

Type	SIZE (Inches)	Design Working Press. (PSIG)	YORK P/N Complete Valve	Replacement Actuator P/N	Fail Closed Design	Illustration
2-Way Globe	1-1/2	125	022R00136 000	022R00158 000	Yes	 00404VIP
		300	022R00138 000			
	2	125	022R00139 000			
		300	022R00141 000			
	2-1/2	125	022R00142 000			
		300	022R00144 000			
	3	125	022R00145 000			
		300	022R00147 000			
	4	125	022R00148 000			
		300	022R00150 000			
	6	125	022R00151 000			
		300	022R00153 000			
3-Way Globe	1-1/2	125	022R00118 000	022R00162 000	No	
		300	022R00120 000			
	2	125	022R00121 000			
		300	022R00123 000			
	2-1/2	125	022R00124 000			
		300	022R00126 000			
	3	125	022R00127 000			
		300	022R00129 000			
	4	125	022R00130 000			
		300	022R00132 000			
	6	125	022R00133 000			
		300	022R00135 000			

OEM PUMPS

UNIT MODEL	PUMPS, COMPLETE ASSEMBLIES (INCLUDES VOLUTE, MOTOR AND IMPELLER)					
	UNIT VOLTAGE 208/230/460-3-60 Hz		UNIT VOLTAGE 575-3-60 Hz		UNIT VOLTAGE 380/400/415-3-50 Hz	
	IN / OUT	PART NUMBER	IN / OUT	PART NUMBER	IN / OUT	PART NUMBER
SOLUTION PUMPS						
1A1	4 / 3	026 R00215 001	4 / 3	026 R00218 001	4 / 3	026 R00221 001
1A2	4 / 3	026 R00215 001	4 / 3	026 R00218 001	4 / 3	026 R00221 001
2A3	4 / 3	026 R00215 002	4 / 3	026 R00218 002	4 / 3	026 R00221 002
2A4	4 / 3	026 R00215 003	4 / 3	026 R00218 003	4 / 3	026 R00221 003
2B1	4 / 3	026 R00215 004	4 / 3	026 R00218 004	4 / 3	026 R00221 004
3B2	4 / 3	026 R00215 005	4 / 3	026 R00218 005	4 / 3	026 R00222 001
3B3	4 / 3	026 R00215 006	4 / 3	026 R00218 006	4 / 3	026 R00222 002
4B4	4 / 3	026 R00215 007	4 / 3	026 R00218 007	4 / 3	026 R00222 003
4C1	4 / 3	026 R00215 007	4 / 3	026 R00218 007	4 / 3	026 R00222 003
5C2	4 / 3	026 R00216 001	4 / 3	026 R00219 001	4 / 3	026 R00222 004
5C3	4 / 3	026 R00216 002	4 / 3	026 R00219 002	4 / 3	026 R00222 005
6C4	4 / 3	026 R00216 002	4 / 3	026 R00219 002	6 / 4	026 R00223 001
7D1	4 / 3	026 R00216 003	4 / 3	026 R00219 003	6 / 4	026 R00223 002
7D2	6 / 4	026 R00217 001	6 / 4	026 R00220 001	6 / 4	026 R00223 003
8D3	6 / 4	026 R00217 002	6 / 4	026 R00220 002	6 / 4	026 R00223 001
8E1	6 / 4	026 R00217 003	6 / 4	026 R00220 003	6 / 4	026 R00223 004
9E2	6 / 4	026 R00217 004	6 / 4	026 R00220 004	6 / 4	026 R00223 001
10E3	6 / 4	026 R00217 005	6 / 4	026 R00220 005	6 / 4	026 R00223 005
12F1	6 / 4	026 R00217 006	6 / 4	026 R00220 006	6 / 4	026 R00223 010
13F2	6 / 4	026 R00217 007	6 / 4	026 R00220 007	6 / 4	026 R00223 010
14F3	6 / 4	026 R00217 008	6 / 4	026 R00220 008	6 / 4	026 R00223 011
REFRIGERANT PUMPS						
1A1	4 / 3	026 R00215 008	4 / 3	026 R00218 008	4 / 3	026 R00221 005
1A2	4 / 3	026 R00215 008	4 / 3	026 R00218 008	4 / 3	026 R00221 005
2A3	4 / 3	026 R00215 008	4 / 3	026 R00218 008	4 / 3	026 R00221 005
2A4	4 / 3	026 R00215 008	4 / 3	026 R00218 008	4 / 3	026 R00221 005
2B1	4 / 3	026 R00215 008	4 / 3	026 R00218 008	4 / 3	026 R00221 005
3B2	4 / 3	026 R00215 008	4 / 3	026 R00218 008	4 / 3	026 R00221 005
3B3	4 / 3	026 R00215 009	4 / 3	026 R00218 009	4 / 3	026 R00221 006
4B4	4 / 3	026 R00215 009	4 / 3	026 R00218 009	4 / 3	026 R00221 006
4C1	4 / 3	026 R00215 009	4 / 3	026 R00218 009	4 / 3	026 R00221 006
5C2	4 / 3	026 R00215 008	4 / 3	026 R00218 008	4 / 3	026 R00221 005
5C3	4 / 3	026 R00215 008	4 / 3	026 R00218 008	4 / 3	026 R00221 005
6C4	4 / 3	026 R00215 010	4 / 3	026 R00218 010	4 / 3	026 R00221 006
7D1	4 / 3	026 R00215 011	4 / 3	026 R00218 011	4 / 3	026 R00222 006
7D2	4 / 3	026 R00216 004	4 / 3	026 R00219 004	4 / 3	026 R00222 006
8D3	4 / 3	026 R00216 005	4 / 3	026 R00219 005	4 / 3	026 R00222 006
8E1	4 / 3	026 R00216 005	4 / 3	026 R00219 005	4 / 3	026 R00222 007
9E2	4 / 3	026 R00216 006	4 / 3	026 R00219 006	6 / 4	026 R00223 006
10E3	6 / 4	026 R00217 009	6 / 4	026 R00220 009	6 / 4	026 R00223 007
12F1	6 / 4	026 R00217 009	6 / 4	026 R00220 009	6 / 4	026 R00223 008
13F2	6 / 4	025 R00217 009	6 / 4	026 R00220 009	6 / 4	026 R00223 008
14F3	6 / 4	026 R00217 010	6 / 4	026 R00220 010	6 / 4	026 R00223 009

PUMPS (CONTINUED)

COMPLETE YORK MODEL 1402 VACUUM PUMP (5.6 CFM)

UNIT MODEL	VOLTAGE	APPLICATION	YORK PART NUMBER
ALL ISOFLOW UNITS	208/230/460-3-60	STANDARD	026 32305 000 or 026R00249 000
	575-3-60	STANDARD	026R00250 000
	380/400/415-3-50	STANDARD	026 32377 000 or 026R00252 000
	208-230/460-3-60	TEFC	026 32842 000

Parts included with the YORK pump are as follows:

ITEM	COMMENTS
Pump oil, 1 quart	Three (3) quarts shipped with pump
Owners manual	Model 1402 only
Adaptor fitting	For discharge port
Drive Belt	Installed on pump

YORK VACUUM PUMP GASKET AND SEAL KIT
(FOR YORK VACUUM PUMP MODEL 1402 ONLY)

KIT CONTENTS YORK Part Number 026-32388-000

DESCRIPTION	QTY.
SEAL KIT	1
PUMP OIL	1 GALLON
GASKETS	1 EACH
ALUMINUM WASHER	1
STEEL CASE OIL SEAL	1
O-RING TENSION WASHER	2
RUBBER WASHER	2
SEAL COVER GASKET	1

PUMPS (CONTINUED)

MISCELLANEOUS VACUUM PUMP PARTS

PUMP MODEL NO. 1402			
V-Belt	028 14424 000	1405A	For use with P/N's 026 32305 000, 026R00249 000 & 026 32842 000
V-Belt	028 14425 000	41-0713	For use with P/N 026 32377 000
Motor Pulley		41-0668	For use with P/N's 026 32305 000 and 026R00249 000
Pump Pulley		41-2074	For use with P/N's 026 32305 000 and 026R00249 000
Belt-Guard Replacement Kit		1471G-01	For use with P/N's 026 32305 000 and 026R00249 000
Base		61-8717	For use with P/N's 026 32305 000 and 026R00249 000
Motor		61-8715	For use with P/N 026 33637 000
Motor		41-1904	For use with P/N 026 32305 000
Pump Oil	011 00524 004	1407K-15	1 gallon of Oil
Owners Manual		67-0696	Models 1400 and 1402
Discharge Port Adaptor Fitting		61-8492A	1"-20 male MACHINE thds. X 3/4"-NPTE x 2-1/4" lg
Discharge Pipe Dust Cap		41-0612	1"-20 machine thds.

PUMPS (CONTINUED)

PUMP REPAIR KITS

Parts for repairing YORK internally-cooled pumps are available through the Baltimore Parts Distribution Center only in a kit format. The contents of each kit is listed below, and are intended to handle a majority of pump failures. Select the kit which will best handle the pump failure.

These kits are not compatible with and cannot be used on old style pump repairs.

NEW STYLE PUMP REPAIR KIT CONTENTS

PUMP REPAIR KIT		MOTOR BEARING REPAIR KIT		NEW MOTOR WITH PUMP REPAIR KIT		CASING GASKET	
ITEM #	**PART**	**ITEM #**	**PART**	**ITEM #**	**PART**	**ITEM #**	**PART**
9	Casing Wear Ring	**9**	Casing Wear Ring	**9**	Casing Wear Ring	**65**	Casing Gasket
10	Motor Side Wearing Ring	**10**	Motor Side Wearing Ring	**10**	Motor Side Wearing Ring		
15A	Impeller Locking Screw	**15A**	Impeller Locking Screw	**15A**	Impeller Locking Screw		
16	Impeller Locking Washer	**16**	Impeller Locking Washer	**16**	Impeller Locking Washer		
17	Feather Key, Impeller	**17**	Feather Key, Impeller	**17**	Feather Key, Impeller		
65	Casing Gasket Kit	**65**	Casing Gasket Kit	**65**	Casing Gasket Kit		
		210A	Bearing	**201**	Multi Voltage Motor - includes items 210 & 210A		
		210	Bearing (Front End)				

NOTE: O-ring only

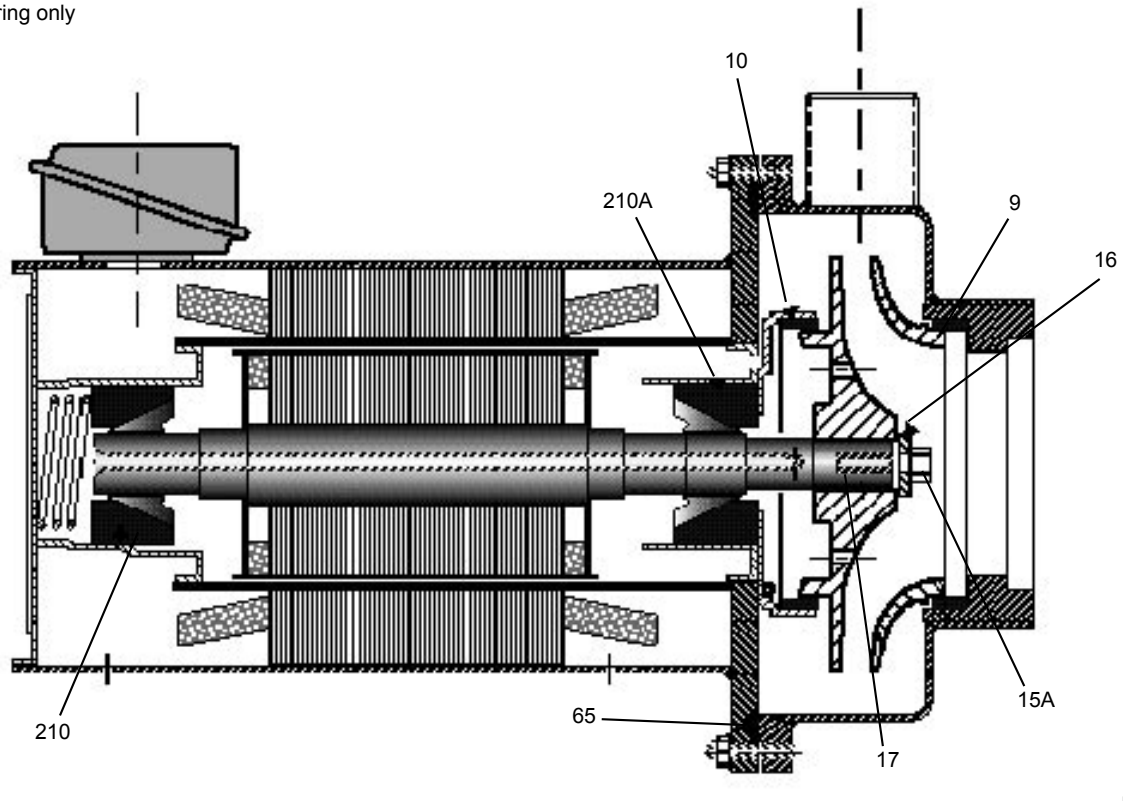


FIG. 15 – NEW STYLE PUMP CROSS-SECTION

PUMPS (CONTINUED)

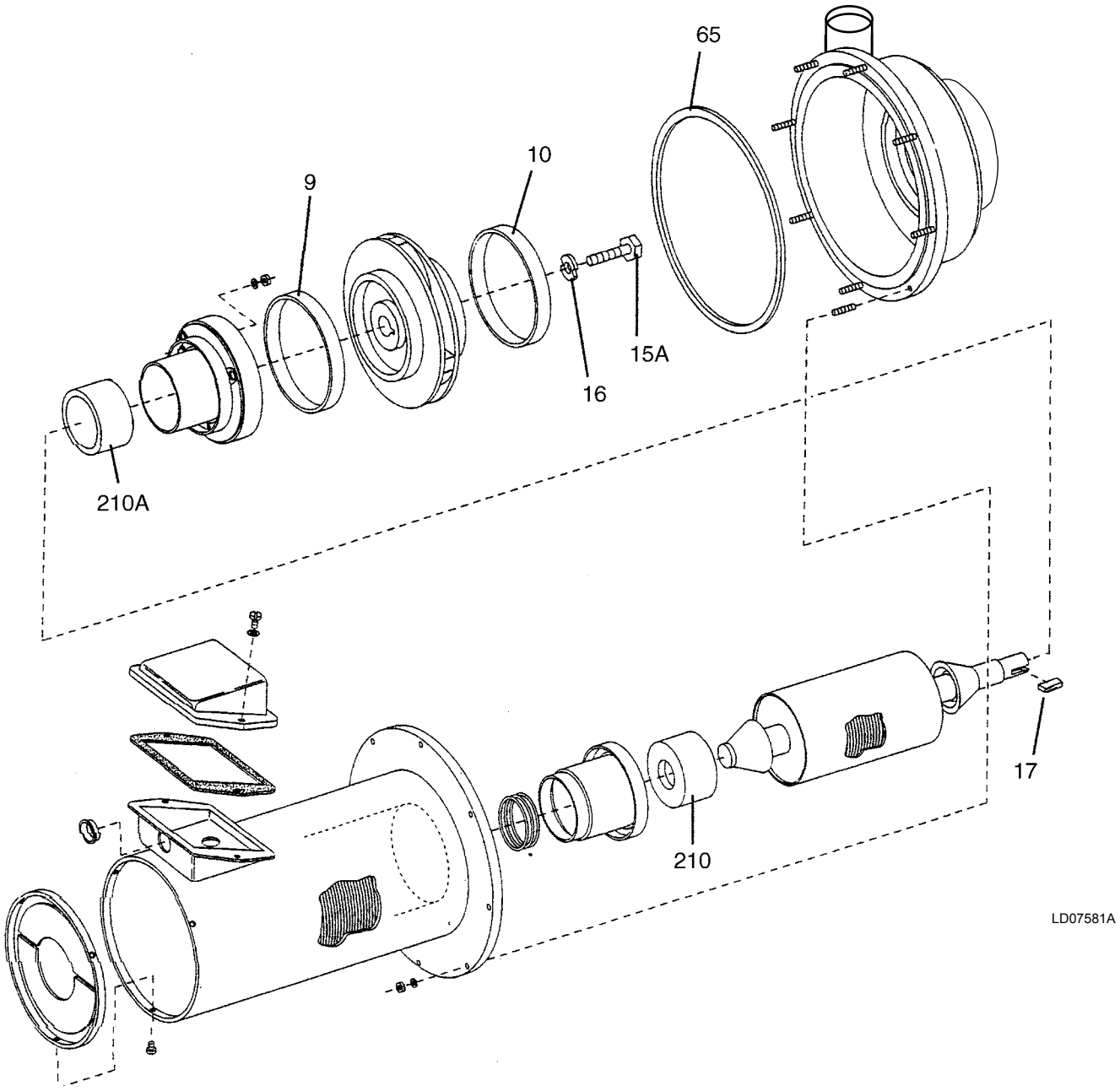


FIG. 16 – SINGLE-ENDED EXPLODED VIEW

NEW STYLE PUMP REPAIR KITS

NEW STYLE PUMP REPAIR KITS for 208/230/460-3-60 Hz UNITS				
UNIT MODEL/ TYPE PUMP	**PUMP REPAIR KIT**	**MOTOR BEARING REPAIR KIT**	**NEW MOTOR with PUMP REPAIR KIT**	**CASING GASKET**
1A1- SOL.	026 35048-000	026 35050 000	026 35052 000	028 13827 000
1A1 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
1A2 - SOL.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
1A2 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
2A3 - SOL.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
2A3 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
2A4 - SOL.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
2A4 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
2B1 - SOL.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
2B1 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
3B2 - SOL.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
3B2 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
3B3 - SOL.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
3B3 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
4B4 - SOL.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
4B4 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
4C1 - SOL.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
4C1 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
5C2 - SOL.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
5C2 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
5C3 - SOL.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
5C3 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
6C4 - SOL.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
6C4 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
7D1 - SOL.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
7D1 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
7D2 - SOL.	026 35058 000	026 35059 000	026 35060 000	028 13828 000
7D2 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
8D3 - SOL.	026 35058 000	026 35059 000	026 35060 000	028 13828 000
8D3 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
8E1 - SOL.	026 35058 000	026 35059 000	026 35060 000	028 13828 000
8E1 - REF.	026 35048 000	026 35050 000	026 35052 000	028 13827 000
9E2 - SOL.	026 35058 000	026 35059 000	026 35061 000	028 13828 000
9E2 - REF.	026 35049 000	026 35051 000	026 35054 000	028 13827 000
10E3 - SOL.	026 35058 000	026 35059 000	026 35061 000	028 13828 000
10E3 - REF.	026 35058 000	026 35059 000	026 35060 000	028 13828 000
12F1 - SOL.	026 35058 000	026 35059 000	026 35060 000	028 13828 000
12F1 - REF.	026 35058 000	026 35059 000	026 35060 000	028 13828 000
13F2 - SOL.	026 35058 000	026 35059 000	026 35061 000	028 13828 000
13F2 - REF.	026 35058 000	026 35059 000	026 35060 000	028 13828 000
14F3 - SOL.	026 35058 000	026 35059 000	026 35061 000	028 13828 000
14F3 - REF.	026 35058 000	026 35059 000	026 35060 000	028 13828 000

See Fig. 15 for Repair Kit contents

NEW STYLE PUMP REPAIR KITS (CONTINUED)

NEW STYLE PUMP REPAIR KITS for 575-3-60 Hz UNITS				
UNIT MODEL/ TYPE PUMP	**PUMP REPAIR KIT**	**MOTOR BEARING REPAIR KIT**	**NEW MOTOR with PUMP REPAIR KIT**	**CASING GASKET**
1A1 - SOL.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
1A1 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
1A2 - SOL.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
1A2 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
2A3 - SOL.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
2A3 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
2A4 - SOL.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
2A4 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
2B1 - SOL.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
2B1 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
3B2 - SOL.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
3B2 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
3B3 - SOL.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
3B3 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
4B4 - SOL.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
4B4 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
4C1 - SOL.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
4C1 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
5C2 - SOL.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
5C2 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
5C3 - SOL.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
5C3 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
6C4 - SOL.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
6C4 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
7D1 - SOL.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
7D1 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
7D2 - SOL.	026 35058 000	026 35059 000	026 35062 000	028 13828 000
7D2 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
8D3 - SOL.	026 35058 000	026 35059 000	026 35062 000	028 13828 000
8D3 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
8E1 - SOL.	026 35058 000	026 35059 000	026 35062 000	028 13828 000
8E1 - REF.	026 35048 000	026 35050 000	026 35056 000	028 13827 000
9E2 - SOL.	026 35058 000	026 35059 000	026 35064 000	028 13828 000
9E2 - REF.	026 35049 000	026 35051 000	026 35057 000	028 13827 000
10E3 - SOL.	026 35058 000	026 35059 000	026 35064 000	028 13828 000
10E3 - REF.	026 35058 000	026 35059 000	026 35062 000	028 13828 000
12F1 - SOL.	026 35058 000	026 35059 000	026 35062 000	028 13828 000
12F1 - REF.	026 35058 000	026 35059 000	026 35062 000	028 13828 000
13F2 - SOL.	026 35058 000	026 35059 000	026 35064 000	028 13828 000
13F2 - REF.	026 35058 000	026 35059 000	026 35062 000	028 13828 000
14F3 - SOL.	026 35058 000	026 35059 000	026 35064 000	028 13828 000
14F3 - REF.	026 35058 000	026 35059 000	026 35062 000	028 13828 000

See Fig. 15 for Repair Kit contents

NEW STYLE PUMP REPAIR KITS (CONTINUED)

NEW STYLE PUMP REPAIR KITS for 380/400/415-3-50 Hz UNITS				
UNIT MODEL/ TYPE PUMP	**PUMP REPAIR KIT**	**MOTOR BEARING REPAIR KIT**	**NEW MOTOR with PUMP REPAIR KIT**	**CASING GASKET**
1A1 - SOL.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
1A1 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
1A2 - SOL.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
1A2 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
2A3 - SOL.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
2A3 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
2A4 - SOL.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
2A4 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
2B1 - SOL.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
2B1 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
3B2 - SOL.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
3B2 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
3B3 - SOL.	026 35049 000	026 35051 000	026 35055 000	028 13827 000
3B3 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
4B4 - SOL.	026 35049 000	026 35051 000	026 35055 000	028 13827 000
4B4 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
4C1 - SOL.	026 35049 000	026 35051 000	026 35055 000	028 13827 000
4C1 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
5C2 - SOL.	026 35049 000	026 35051 000	026 35055 000	028 13827 000
5C2 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
5C3 - SOL.	026 35049 000	026 35051 000	026 35055 000	028 13827 000
5C3 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
6C4 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
6C4 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
7D1 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
7D1 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
7D2 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
7D2 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
8D3 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
8D3 - REF.	026 35048 000	026 35050 000	026 35053 000	028 13827 000
8E1 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
8E1 - REF.	026 35049 000	026 35051 000	026 35055 000	028 13827 000
9E2 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
9E2 - REF.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
10E3 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
10E3 - REF.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
12F1 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
12F1 - REF.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
13F2 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
13F2 - REF.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
14F3 - SOL.	026 35058 000	026 35059 000	026 35063 000	028 13828 000
14F3 - REF.	026 35058 000	026 35059 000	026 35063 000	028 13828 000

See Fig. 15 for Repair Kit contents

RUPTURE DISKS

YIA MODEL NUMBER	RUPTURE DISK SIZE	RUPTURE DISK* PART NUMBER	RUPTURE DISK HOLDER PART NUMBER
1A1	1-1/2”	026 37940 000 Teflon gaskets 028R00987 000	026 37941 000
1A2	1-1/2”		
2A3	1-1/2”		
2A4	1-1/2”		
2B1	1-1/2”		
3B2	1-1/2”		
3B3	1-1/2”		
4B4	1-1/2”		
4C1	2”	026 37942 000 026 37944 000 Teflon gaskets 028R00988 000	026 37943 000
5C2	2”		
5C3	2”		
6C4	2”		
7D1	2”		
7D2	2”		
8D3	2”		
8E1	2”		
9E2	2”		
10E3	2”		
12F1	3”	026 37944 000 Teflon gaskets 028R00989 000	026 37945 000
13F2	3”		
14F3	3”		
All Hot Water* **	4”	026 10433 000**	N/A

NOTES:

* Rupture Disks are metallic and can be used on both hot water and steam units.

** Rupture Disk is carbon and includes two neoprene gaskets. Gaskets cannot be purchased separately.

*** Units built before 4/15/02 only.

MISCELLANEOUS COMPONENTS

MISCELLANEOUS COMPONENTS	
ITEM DESCRIPTION	**PART NUMBER**
Sight Glass, absorber, 4” (See. Fig. 17)	026 09608 000
Sight Plug, evaporator end sheet, 1-1/2” (2 per unit)	026 18931 000
Absolute pressure gauge, glass mercury-filled U-tube manometer, 5” std. cm/mm, gauge range 0 - 127 mm	026 09261 000
Absolute pressure gauge, dial type (non-mercury), gauge range 0 to 40 mm	026 32396 000
Gauge, compound, 4” dial type range -760mm Hg. Abs. to 15 psig	026 34443 000
Gauge, compound, 3-1/2” dial type range 30”” Hg Abs. to 300 psig	026 03952 000
Siphon (used in conjunction with above compound gauge)	026 28384 000
Flow switch for use with 150# DWP water boxes1	024 26116 000
Flow switch for use with 300# DWP water boxes 1	024 12144 000
Control, differential pressure switch	025 30919 000
Purge drum assembly (fits all models)	375R01912 000
Tubing, vacuum pump suction connection, clear wire reinforced, 3/4” ID x 1.024 OD	028 13535 000
Tubing, manometer connection and vacuum sample flask, clear, 1/4” ID x 5/8”” OD	028 12514 000
Tubing, bubble leak check, clear, 1/4” ID x 3/8” OD (not for vacuum purposes)	028 10605 000
Hose Clamp, SST, range 1-1/16” to 2” dia.	021 12930 000
Tee, 1/2 inch NPTI threaded, carbon steel (for auxiliary purge connection at manometer)	023 11329 000
Isolation Pads for models 1A1 thru 2A4	366 29813 000
Isolation Pads for models 2B1 thru 4B4	367 67606 000
Isolation Pads for models 4C1 thru 6C4	367 67607 000
Isolation Pads for models 7D1 thru 8D3	367 67608 000
Isolation Pads for models 8E1 thru 10E3	367 78184 000
Isolation Pads for models 12F1 thru 14F3	366 06736 000
Solenoid valve, 1/2 NPTI, explosion proof Class 1, Div. 1, Group B	025R00117 000
Solenoid Valve, 3/4 NPTI, explosion proof, Class 1, Div. 1, Group B	025R00118 000
Solenoid Valve, 3/4 NPTI, explosion proof, normally closed, Class 1, Div. 1, Group B	025R00119 000
Thermowell, for entering steam/hot water supply temp.	026R00228 000
Thermowell, for absorber, evaporator, & condenser nozzles	026 32328 000
Spindle Valve Adapter	922 08869 001
3F Refrigerant Pump Cutout Switch Enclosure (old style)	375R00229 000
Coupling, half-pipe, 1/2”, 3000#	068 00083 000
Oil Trap Assembly	366 20514 000
Bushing, Pipe, 1-1/4”-11-1/2 thd. x 3/8”-11 thd.	023 23398 000
General Head Impingement Baffle Plate, Family A	066R11313 001
General Head Impingement Baffle Plate, Family B	066R11313 001
General Head Impingement Baffle Plate, Family C	066R11313 002
General Head Impingement Baffle Plate, Family D	066R11313 003
General Head Impingement Baffle Plate, Family E	066R11313 004
General Head Impingement Baffle Plate, Family F	066R11313 005

NOTES:

1. Flow switch can be used for either evaporator or condenser water loops.

Continued on next page

MISCELLANEOUS COMPONENTS (CONT'D)

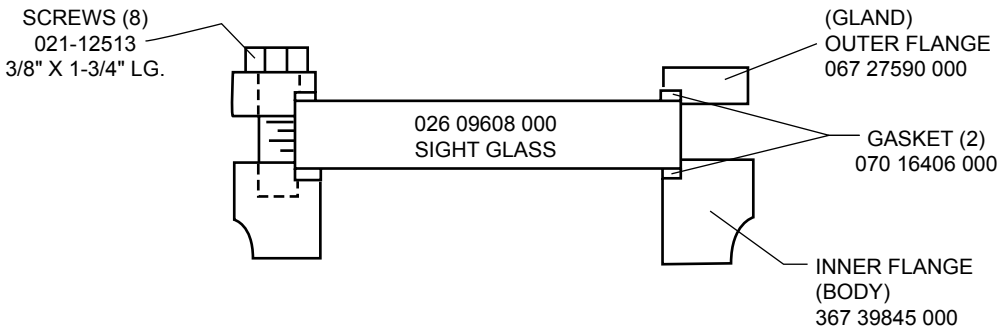


FIG. 17 – ASSEMBLY OF 4" ABSORBER SIGHT GLASS

MISCELLANEOUS COMPONENTS - UNINTERRUPTIBLE POWER SUPPLY		
ITEM DESCRIPTION	**PART NUMBER**	
	60 Hz	**50Hz**
UPS Power Supply	371 02756 311	371 02756 311
Harness (UPS to Micro panel)	575 21570 221	575 21771 221
Harness (inside UPS)	571 02756 201	571 02756 201
Internal Battery Back Up	024 20211 000	024 20211 000
Socket	024 31771 000	024 31771 000
Relay	024 24325 000	024 24325 000

TUBES

GENERATOR ISOFLOW ABSORPTION CHILLER TUBES									
Chiller Model	Length (in.)	Standard Temperature Generator Tubes for Design Level "A" Units						High Temperature Generator Tubes for Design Level "A" Units	
		Nom. O.D. (In.)	Wall Nom. Thk (In.)	Qty.	Type	No. Skips	Part No. (90/10 CuNi)	No. Skips	Part No. (90/10 CuNi)
1A1	120-1/8	3/4	.035	64	19 fpi	2	007R00078 000	4	007R00180 000
1A2	144-1/8	3/4	.035	64	19 fpi	2	007 04790 000	5	007R00176 000
2A3	168-1/8	3/4	.035	64	19 fpi	2	007 04791 000	6	007R00149 000
2A4	192-1/8	3/4	.035	64	19 fpi	3	007 05036 000	7	007R00181 000
2B1	168-1/8	3/4	.035	85	19 fpi	2	007 04791 000	6	007R00149 000
3B2	192-1/8	3/4	.035	85	19 fpi	3	007 05036 000	7	007R00181 000
3B3	216-1/8	3/4	.035	85	19 fpi	3	007 05118 000	8	007R00182 000
4B4	240-1/8	3/4	.035	85	19 fpi	4	007 04792 000	9	007R00183 000
4C1	192-1/8	3/4	.035	121	19 fpi	3	007 05036 000	7	007R00181 000
5C2	216-1/8	3/4	.035	121	19 fpi	3	007 05118 000	8	007R00182 000
5C3	240-1/8	3/4	.035	121	19 fpi	4	007 04792 000	9	007R00183 000
6C4	270-1/8	3/4	.035	121	19 fpi	4	007 05181 000	10	007R00184 000
7D1	216-1/8	3/4	.035	166	19 fpi	3	007 05118 000	7	007R00148 000
7D2	240-1/8	3/4	.035	166	19 fpi	4	007 04792 000	8	007R00117 000
8D3	270-1/8	3/4	.035	166	19 fpi	4	007 05181 000	10	007R00184 000
8E1	240-1/8	3/4	.035	224	19 fpi	4	007 04792 000	8	007R00117 000
9E2	270-1/8	3/4	.035	224	19 fpi	4	007 05181 000	9	007R00185 000
10E3	300-1/8	3/4	.035	224	19 fpi	5	007 05673 000	10	007R00186 000
12F1	270-1/8	3/4	.035	300	19 fpi	4	007 05181 000	8	007R00187 000
13F2	300-1/8	3/4	.035	300	19 fpi	5	007 05673 000	10	007R00186 000
14F3	330-1/8	3/4	.035	300	19 fpi	6	007R00077 000	11	007R00179 000

NOTES:

1. See unit nameplate and nomenclature section of this document to determine design level of unit.
2. Above tube part numbers are also applicable for "ES" machines.
3. Do not use the above generator tubes on Design Level "B" machines (Units built after February 1998).
4. If replacing tubes in the generator, it is also highly recommended to replace the supports.
5. End sheet hole tolerance for .750 O.D. tubes = .760" to .765"
6. Standard temp. generator tubes can handle temperatures to 285°F steam inlet temperature and 240°F for hot water inlet temp. High temperature design generator can handle inlet temperatures to 337°F for steam and 266°F for hot water.

ISOFLOW ABSORPTION CHILLER TUBES								
CONDENSER TUBES								
Chiller Model	**Nom. O.D. (in)**	**No. Supports**	**Qty.**	**Type**	**Part No. (Copper, .028") C-122**	**Part No. (90/10 CuNi, .028")**	**Part No. (90/10 CuNi, .035")**	**Part No. STD / Cu 0.028" P/CASCO TUV 300#**
1A1	3/4	2	49	Bare	007R00258 000	007 06281 000	007 06077 000	007 06256 000
1A2	3/4	2	49	Bare	007R00259 000	007 06282 000	007 05034 000	007 06257 000
2A3	1	2	37	Bare	007R00267 000	007 06290 000	007 06080 000	007 06250 000
2A4	1	3	37	Bare	007R00268 000	007 06291 000	007 06081 000	007 06251 000
2B1	3/4	2	72	Bare	007R00260 000	007 06283 000	007 05039 000	007 06258 000
3B2	1	3	54	Bare	007R00261 000	007 06291 000	007 06081 000	007 06251 000
3B3	1	3	54	Bare	007R00269 000	007 06292 000	007 06082 000	007 06252 000
4B4	1	4	54	Bare	007R00270 000	007 06293 000	007 06083 000	007 06253 000
4C1	3/4	3	111	Bare	007R00261 000	007 06284 000	007 05057 000	007 06259 000
5C2	1	3	83	Bare	007R00269 000	007 06292 000	007 06082 000	007 06252 000
5C3	1	4	83	Bare	007R00270 000	007 06293 000	007 06083 000	007 06253 000
6C4	1	4	83	Bare	007R00271 000	007 06294 000	007 06084 000	007 06244 000
7D1	1	3	114	Bare	007R00269 000	007 06292 000	007 06082 000	007R00274 000
7D2	1	4	114	Bare	007R00270 000	007 06293 000	007 06083 000	007R00275 000
8D3	1	4	114	Bare	007R00271 000	007 06294 000	007 06084 000	007R00276 000
8E1	1	4	162	Bare	007R00270 000	007 06293 000	007 06083 000	007R00277 000
9E2	1	4	162	Bare	007R00271 000	007 06294 000	007 06084 000	007R00278 000
10E3	1	5	162	Bare	007R00272 000	007 06295 000	007 06085 000	007R00279 000
12F1	1	4	212	Bare	007R00271 000	007 06294 000	007 06084 000	007R00280 000
13F2	1	5	212	Bare	007R00272 000	007 06295 000	007 06085 000	007R00281 000
14F3	1	5	212	Bare	007R00273 000	007 06296 000	007 06086 000	007R00282 000

TUBES (CONTINUED)

ISOFLOW ABSORPTION CHILLER TUBES								
Chiller Model	Length (in)	Nom. O.D. (in)	ABSORBER TUBES					
			Qty.	Type	No. Supports	Part No. (Cu, .028") C-122	Part No. (90/10 CuNi, .028)	Part No. (90/10 CuNi, .035")
1A1	120-1/8	3/4	164	Bare	2	007R00258 000	007 06281 000	007 06077 000
1A2	144-1/8	3/4	164	Bare	2	007R00259 000	007 06282 000	007 05034 000
2A3	168-1/8	3/4	164	Bare	2	007R00260 000	007 06283 000	007 05039 000
2A4	192-1/8	3/4	164	Bare	3	007R00261 000	007 06284 000	007 05057 000
2B1	168-1/8	3/4	225	Bare	2	007R00260 000	007 06283 000	007 05039 000
3B2	192-1/8	3/4	225	Bare	3	007R00261 000	007 06284 000	007 05057 000
3B3	216-1/8	3/4	225	Bare	3	007R00262 000	007 06285 000	007 05056 000
4B4	240-1/8	3/4	225	Bare	4	007R00263 000	077 06286 000	007 05058 000
4C1	192-1/8	3/4	323	Bare	3	007R00261 000	007 06284 000	007 05057 000
5C2	216-1/8	3/4	323	Bare	3	007R00262 000	007 06285 000	007 05056 000
5C3	240-1/8	3/4	323	Bare	4	007R00263 000	007 06286 000	007 05058 000
6C4	270-1/8	3/4	323	Bare	4	007R00264 000	007 06287 000	007 05129 000
7D1	216-1/8	3/4	441	Bare	3	007R00262 000	007 06285 000	007 05056 000
7D2	240-1/8	3/4	441	Bare	4	007R00263 000	007 06286 000	007 05058 000
8D3	270-1/8	3/4	441	Bare	4	007R00264 000	007 06287 000	007 05129 000
8E1	240-1/8	3/4	571	Bare	4	007R00263 000	007 06286 000	007 05058 000
9E2	270-1/8	3/4	571	Bare	4	007R00264 000	007 06287 000	007 05129 000
10E3	300-1/8	3/4	571	Bare	5	007R00265 000	007 06288 000	007 05676 000
12F1	270-1/8	3/4	731	Bare	4	007R00264 000	007 06287 000	007 05129 000
13F2	300-1/8	3/4	731	Bare	5	007R00265 000	007 06288 000	007 05676 000
14F3	330-1/8	3/4	731	Bare	5	007R00266 000	007 06289 000	007R00119 000

NOTES:

1. All copper tubes are copper are material C-122.
2. □ -
   ture section of this document to determine unit design level.

ISOFLOW ABSORPTION CHILLER TUBES (Cont'd)						
EVAPORATOR TUBES						
Chiller Model	**Qty.**	**Type**	**No. Supports**	**Part No. (Copper, .028")**	**Part No. (90/10 CuNi, .028")**	**Part No. (90/10 CuNi, .035")**
1A1	160	Cont. 19 fpi	2	007 06264 000	007R00165 000	007R00173 000
1A2	160	Cont. 19 fpi	2	007 06265 000	007R00166 000	007R00076 000
2A3	160	Cont. 19 fpi	2	007 06266 000	007R00167 000	007R00174 000
2A4	160	Cont. 19 fpi	3	007 06267 000	007R00072 000	007R00175 000
2B1	216	Cont. 19 fpi	2	007 06266 000	007R00167 000	007R00174 000
3B2	216	Cont. 19 fpi	3	007 06267 000	007R00072 000	007R00175 000
3B3	216	Cont. 19 fpi	3	007 06268 000	007R00168 000	007R00150 000
4B4	216	Cont. 19 fpi	4	007 06269 000	007R00169 000	007R00125 000
4C1	312	Cont. 19 fpi	3	007 06267 000	007R00072 000	007R00175 000
5C2	312	Cont. 19 fpi	3	007 06268 000	007R00168 000	007R00150 000
5C3	312	Cont. 19 fpi	4	007 06269 000	007R00169 000	007R00125 000
6C4	312	Cont. 19 fpi	4	007 06247 000	007R00170 000	007R00062 000
7D1	429	Cont. 19 fpi	3	007 06268 000	007R00168 000	007R00150 000
7D2	429	Cont. 19 fpi	4	007 06269 000	007R00169 000	007R00125 000
8D3	429	Cont. 19 fpi	4	007 06247 000	007R00170 000	007R00062 000
8E1	552	Cont. 19 fpi	4	007 06269 000	007R00169 000	007R00125 000
9E2	552	Cont. 19 fpi	4	007 06247 000	007R00170 000	007R00062 000
10E3	552	Cont. 19 fpi	5	007 06270 000	007R00171 000	007R00116 000
12F1	704	Cont. 19 fpi	4	007 06247 000	007R00170 000	007R00062 000
13F2	704	Cont. 19 fpi	5	007 06270 000	007R00171 000	007R00116 000
14F3	704	Cont. 19 fpi	5	007 06271 000	007R00172 000	007R00073 000

TUBES (CONTINUED)

GENERATOR TUBES FOR DESIGN LEVEL "B" CHILLERS						
UNIT MODEL	LENGTH (IN)	NO. SKIPS	QTY.	Generator Code and Design Working Pressure		
				Non-Code/ ASME/ISPESL	TUV	TUV
				150 & 300 DWP	10 BAR	21 BAR
1A1	120-1/8	3	64	007R00215 000	N/A	007R00215 000
1A2	144-1/8	3	64	007R00216 000	N/A	007R00216 000
2A3	168-1/8	4	64	007R00217 000	N/A	007R00217 000
2A4	192-1/8	4	64	007R00218 000	N/A	007R00218 000
2B1	168-1/8	4	85	007R00217 000	N/A	007R00217 000
3B2	192-1/8	4	85	007R00218 000	N/A	007R00218 000
3B3	216-1/8	5	85	007R00219 000	N/A	007R00219 000
4B4	240-1/8	5	85	007R00220 000	N/A	007R00220 000
4C1	192-1/8	4	121	007R00218 000	N/A	007R00218 000
5C2	216-1/8	5	121	007R00219 000	N/A	007R00219 000
5C3	240-1/8	5	121	007R00220 000	N/A	007R00220 000
6C4	270-1/8	6	121	007R00221 000	N/A	007R00221 000
7D1	216-1/8	5	166	007R00219 000	007R00219 000	007R00225 000
7D2	240-1/8	5	166	007R00220 000	007R00220 000	007R00226 000
8D3	270-1/8	6	166	007R00221 000	007R00221 000	007R00227 000
8E1	240-1/8	5	224	007R00220 000	007R00220 000	007R00228 000
9E2	270-1/8	6	224	007R00221 000	007R00221 000	007R00229 000
10E3	300-1/8	7	224	007R00222 000	007R00222 000	007R00230 000
12F1	270-1/8	6	300	007R00221 000	007R00221 000	007R00231 000
13F2	300-1/8	7	300	007R00222 000	007R00222 000	007R00232 000
14F3	330-1/8	7	300	007R00223 000	007R00223 000	007R00233 000

NOTES:

1. See unit nameplate and nomenclature section of this document to determine design level of unit.
2. All tubes are 3/4" O.D., .035" wall, 19 fpi, 90/10 CuNi.
3. When replacing tubes in the generator, it is highly recommended to replace the supports.
4. All design level "B" units have a generator design working temperature up to 337°F (169°C) for Steam units and 266°F (130°C) for Hot water units.

TUBE SUPPORTS

TUBE SUPPORTS FOR DESIGN LEVEL "A" CHILLERS

UNIT MODEL	GENERATOR			CONDENSER		ABSORBER		EVAPORATOR	
	DUTY	QTY	PART NO.	QTY	PART NO.	QTY	PART NO.	QTY	PART NO.
1A1	STD	2	066 23508 000	2	066 52359 000	2	066 24633 000	2	066 24672 000
	HI-TEMP	4							
1A2	STD	2	066 23508 000	2	066 52359 000	2	066 24633 000	2	066 24672 000
	HI-TEMP	4							
2A3	STD	2	066 23508 000	2	066 52360 000	2	066 24633 000	2	066 24672 000
	HI-TEMP	6							
2A4	STD	3	066 23508 000	3	066 52360 000	TOTAL 3	(2) 066 24633 000 (1) 066 24634 000	3	066 24672 000
	HI-TEMP	7							
2B1	STD	2	066 24977 000	2	066 43323 000	2	066 25134 000	2	066 25162 000
	HI-TEMP	6							
3B2	STD	3	066 24977 000	3	066 24997 000	TOTAL 3	(2) 066 25134 000 (1) 066 25135 000	3	066 25162 000
	HI-TEMP	7							
3B3	STD	3	066 24977 000	3	066 24997 000	TOTAL 3	(2) 066 25134 000 (1) 066 25135 000	3	066 25162 000
	HI-TEMP	8							
4B4	STD	4	066 24977 000	4	066 24997 000	4	066 25134 000	4	066 25162 000
	HI-TEMP	9							
4C1	STD	3	066 21490 000	3	066 46353 000	TOTAL 3	(1) 066 21363 000 (2) 066 21362 000	3	066 21400 000
	HI-TEMP	7							
5C2	STD	3	066 21490 000	3	066 21492 000	TOTAL 3	(1) 066 21363 000 (2) 066 21362 000	3	066 21400 000
	HI-TEMP	8							
5C3	STD	4	066 21490 000	4	066 21492 000	4	066 21362 000	4	066 21400 000
	HI-TEMP	9							
6C4	STD	4	066 21490 000	4	066 21492 000	4	066 21362 000	4	066 21400 000
	HI-TEMP	10							
7D1	STD	3	066 26490 000	3	066 26509 000	TOTAL 3	(1) 066 26386 000 (2) 066 26385 000	3	066 26406 000
	HI-TEMP	7							
7D2	STD	4	066 26490 000	4	066 26509 000	4	066 26385 000	4	066 26406 000
	HI-TEMP	8							
8D3	STD	4	066 26490 000	4	066 26509 000	4	066 26385 000	4	066 26406 000
	HI-TEMP	10							
8E1	STD	4	066 27401 000	4	066 27412 000	4	066 27951 000	4	066 27978 000
	HI-TEMP	8							
9E2	STD	4	066 27401 000	4	066 27412 000	4	066 27951 000	4	066 27978 000
	HI-TEMP	9							
10E3	STD	5	066 27401 000	5	066 27412 000	TOTAL 5	(4) 066 27951 000 (1) 066 27952 000	5	066 27978 000
	HI-TEMP	10							
12F1	STD	4	066 28495 000	4	066 28518 000	4	066 28764 000	4	066 28786 000
	HI-TEMP	8							
13F2	STD	5	066 28495 000	5	066 28518 000	TOTAL 5	(4) 066 28764 000 (1) 066 28765 000	5	066 28786 000
	HI-TEMP	10							
14F3	STD	6	066 28495 000	5	066 28518 000	TOTAL 5	(4) 066 28764 000 (1) 066 28765 000	5	066 28786 000
	HI-TEMP	11							

TUBES SUPPORTS (CONTINUED)

TUBE SUPPORTS FOR DESIGN LEVEL "B" CHILLERS

UNIT MODEL	GENERATOR		CONDENSER		ABSORBER		EVAPORATOR	
	QTY	PART NO.	QTY	PART NO.	QTY	PART NO.	QTY	PART NO.
1A1	3	066-23508-000	2	066-52359-000	2	066-24633-000	2	066-24672-000
1A2	3	066 23508 000	2	066 52359 000	2	066 24633 000	2	066 24672 000
2A3	4	066 23508 000	2	066 52360 000	2	066 24633 000	2	066 24672 000
2A4	4	066 23508 000	3	066 52360 000	3	066 24633 000	3	066 24672 000
2B1	4	066 24977 000	2	066 43323 000	2	066 25134 000	2	066 25162 000
3B2	4	066 24977 000	3	066 24997 000	3	066 25134 000	3	066 25162 000
3B3	5	066 24977 000	3	066 24997 000	3	066 25134 000	3	066 25162 000
4B4	5	066 24977 000	4	066 24997 000	4	066 25134 000	4	066 25162 000
4C1	4	066 21490 000	3	066 46353 000	3	066 21363 000	3	066 21400 000
5C2	5	066 21490 000	3	066 21492 000	3	066 21363 000	3	066 21400 000
5C3	5	066 21490 000	4	066 21492 000	4	066 21362 000	4	066 21400 000
6C4	6	066 21490 000	4	066 21492 000	4	066 21362 000	4	066 21400 000
7D1	5	066 26490 000	3	066 26509 000	3	066 26385 000	3	066 26406 000
7D2	5	066 26490 000	4	066 26509 000	4	066 26385 000	4	066 26406 000
8D3	6	066 26490 000	4	066 26509 000	4	066 26385 000	4	066 26406 000
8E1	5	066 27401 000	4	066 27412 000	4	066 27951 000	4	066 27978 000
9E2	6	066 27401 000	4	066 27412 000	4	066 27951 000	4	066 27978 000
10E3	7	066 27401 000	5	066 27412 000	5	066 27951 000	5	066 27978 000
12F1	6	066 28495 000	4	066 28518 000	4	066 28764 000	4	066 28786 000
13F2	7	066 28495 000	5	066 28518 000	5	066 28764 000	5	066 28786 000
14F3	7	066 28495 000	5	066 28518 000	5	066 28764 000	5	066 28786 000

NOTES FOR ALL TUBE SUPPORTS:

1. See unit nameplate and nomenclature section of this document to determine design level of unit.
2. Tube supports are special order items at the Baltimore Parts Center, extended delivery may apply.
3. Design Level "A" tube support part numbers are also applicable for "ES" units.
4. The numbers in parentheses under the absorber column (Design Level "A" supports) are quantities of that particular part number that make up the total number of supports in the absorber shell.
5. Standard and Hi-temperature generators (for Design Level "A" units) are defined as follows:

   Steam Units:

   Standard - Steam supply temperature 285°F, (140°C) or below.

   Hi-Temp - Steam supply temperature between 285°F, up to 337°F, (169°C).

   Hot Water Units:

   Standard - Hot water supply temperature 240°F, (116°C) or below.

   Hi-Temp - Hot water supply temperature between 240°F, up to 266°F, (130°C).

ISOFLOW SOLUTION-TO-SOLUTION HEAT EXCHANGERS

ISOFLOW SOLUTION-TO-SOLUTION HEAT EXCHANGERS						
UNIT MODEL	**O.A.L. (IN)**	**TUBE LENGTH (IN)**	**TUBE QTY.**	**HEAT EXCHANGER PART NUMBER**	**SPRING TURBULATOR PART NUMBER**	**TUBE PART NUMBER**
1A1	112	104-1/4	82	375R00760B000	029 13628 000	003 01855 000
1A2	136	128-1/4		375R00766B000	029 10007 000	003 01630 000
2A3	160	152-1/4		375R00768B000	029 10008 000	003 01656 000
2A4	184	176-1/4		375R00769B000	029 10009 000	003 01657 000
2B1	160	152-1/4	107	375R00800B000	029 10008 000	003 01656 000
3B2	184	176-1/4		375R00801B000	029 10009 000	003 01657 000
3B3	206	198-1/4		375R00802B000	029 10010 000	003 01658 000
4B4	227	219-1/4		375R00803B000	029 10011 000	003 01644 000
4C1	160	152-1/4	154	375R00814B000	029 10008 000	003 01656 000
5C2	184	176-1/4		375R00815B000	029 10009 000	003 01657 000
5C3	206	198-1/4		375R00816B000	029 10010 000	003 01658 000
6C4	227	219-1/4		375R00817B000	029 10011 000	003 01644 000
7D1	184	176-1/4	209	375R00832B000	029 10009 000	003 01657 000
7D2	206	198-1/4		375R00833B000	029 10010 000	003 01658 000
8D3	227	219-1/4		375R00834B000	029 10011 000	003 01644 000
8E1	188	176-1/4	294	375R00858B000	029 10009 000	003 01657 000
9E2	210	198-1/4		375R00859B000	029 10010 000	003 01658 000
10E3	231	219-1/4		375R00860B000	029 10011 000	003 01644 000
12F1	164	152-1/4	495	375R00861B000	029 10008 000	003 01656 000
13F2	188	176-1/4		375R00862B000	029 10009 000	003 01657 000
14F3	210	198-1/4		375R00863B000	029 13775 000	003 01658 000

NOTES:

1. All tubes are 1/2” O.D., .049” wall.
2. All heat exchangers are special ordered items, through Factory Marketing dept.

GASKETS AND ELASTOMERS

DESIGN LEVEL "B and later" CHILLERS (Units built after February 1998)

GENERATOR:

UNIT MODEL FAMILY	ASME & NON CODE		TUV CODE	
	DWP 150 & 300 lb		10 & 21 Bar	
	YORK P/N	QTY.	YORK P/N	QTY.
A	028R00965 000	9 ft.	028R00931 001	2 pcs.
B	028R00965 000	10 ft.	028R00931 002	2 pcs.
C	028R00965 000	11 ft.	028R00931 003	2 pcs.
D	028R00965 000	14 ft.	028R00931 004	2 pcs.
E	028R00965 000	15 ft.	028R00931 005	2 pcs.
F	028R00965 000	17 ft.	028R00931 006	2 pcs.
All	Pass baffle gaskets are YORK P/N 028 08547 000			
All	Absorber sight glass gaskets 4" OD x 3-3/8" ID (2 required per unit) Material: Buna-N P/N 070 16406 000			

CONDENSER:

UNIT MODEL FAMILY	COMPACT WATER BOXES				MARINE WATER BOXES [1]			
	DWP 150 LB		DWP 300 LB		DWP 150 LB.		DWP 300 LB	
	YORK P/N	QTY.	YORK P/N	QTY.	YORK P/N	QTY.	YORK P/N	QTY.
A	028R00949 000	10 FT.	028R00950 000	10 FT.	075R02391 002	2 PCS.	N/A	
B	028R00949 000	10 FT.	028R00950 000	10 FT.	075R02391 005	2 PCS.	N/A	
C	028R00949 000	12 FT.	028R00950 000	12 FT.	075R02391 008	2 PCS.	N/A	
D	028R00949 000	12 FT.	028R00950 000	12 FT.	075R02391 011	2 PCS.	N/A	
E	028R00949 000	15 FT.	028R00950 000	15 FT.	075R02391 014	2 PCS.	N/A	
F	028R00949 000	16 FT.	028R00950 000	16 FT.	075R02391 017	2 PCS.	N/A	
All	Pass baffle gaskets are YORK P/N 028 08547 000							
All	Absorber sight glass gaskets 4" OD x 3-3/8" ID (2 required per unit) Material: Buna-N P/N 070 16406 000							

– continued on next page

NOTES:

1. Compact design gaskets are used on the return water boxes for even pass arrangements. Quantity shown is for odd pass arrangements boxes.
2. Two neoprene gaskets are included with the rupture disk, these gaskets cannot be purchased separately.
3. The material for the 028R00931 000 gaskets is Garlock CP-3900.

GASKETS AND ELASTOMERS (CONTINUED)

DESIGN LEVEL "B and later" CHILLERS (Units built after February 1998)

EVAPORATOR:

UNIT MODEL FAMILY	COMPACT WATER BOXES				MARINE WATER BOXES [1]			
	DWP 150 LB		DWP 300 LB		DWP 150 LB.		DWP 300 LB	
	YORK P/N	QTY.	YORK P/N	QTY.	YORK P/N	QTY.	YORK P/N	QTY.
A	028R00949 000	11 ft.	028R00950 000	11 ft.	075R02391 003	2 pcs.	N/A	
B	028R00949 000	13 ft.	028R00950 000	13 ft.	075R02391 006	2 pcs.	N/A	
C	028R00949 000	15 ft.	028R00950 000	15 ft.	075R02391 009	2 pcs.	N/A	
D	028R00949 000	17 ft.	028R00950 000	17 ft.	075R02391 012	2 pcs.	N/A	
E	028R00949 000	20 ft.	028R00950 000	20 ft.	075R02391 015	2 pcs.	N/A	
F	028R00949 000	23 ft.	028R00950 000	23 ft.	075R02391 018	2 pcs.	N/A	
All	Pass baffle gaskets are YORK P/N 028 08547 000							
All	Absorber sight glass gaskets 4" OD x 3-3/8" ID (2 required per unit) Material: Buna-N P/N 070 16406 000							

ABSORBER:

UNIT MODEL FAMILY	COMPACT WATER BOXES				MARINE WATER BOXES [1]			
	DWP 150 LB		DWP 300 LB		DWP 150 LB.		DWP 300 LB	
	YORK P/N	QTY.	YORK P/N	QTY.	YORK P/N	QTY.	YORK P/N	QTY.
A	028R00949 000	15 ft.	028R00950 000	15 ft.	075R02391 001	2 pcs.	N/A	
B	028R00949 000	18 ft.	028R00950 000	18 ft.	075R02391 004	2 pcs.	N/A	
C	028R00949 000	20 ft.	028R00950 000	20 ft.	075R02391 007	2 pcs.	N/A	
D	028R00949 000	25 ft.	028R00950 000	25 ft.	075R02391 010	2 pcs.	N/A	
E	028R00949 000	28 ft.	028R00950 000	28 ft.	075R02391 013	2 pcs.	N/A	
F	028R00949 000	32 ft.	028R00950 000	32 ft.	075R02391 016	2 pcs.	N/A	
All	Pass baffle gaskets are YORK P/N 028 08547 000							
All	Absorber sight glass gaskets 4" OD x 3-3/8" ID (2 required per unit) Material: Buna-N P/N 070 16406 000							

NOTES:

1. Compact design gaskets are used on the return water boxes for even pass arrangements. Quantity shown is for odd pass arrangement boxes.
2. Two neoprene gaskets are included with the rupture disk, these gaskets cannot be purchased separately.
3. The material for the 028R00931 000 gaskets is Garlock CP-3900.

CHEMICALS AND COMPOUNDS

ITEM DESCRIPTION	PART NUMBER
Lithium Bromide Solution, ADVAGuard 750 Inhibited, (30 gallon drum)	011 00903 000
ADVAGuard 750A Solution, (1/2 gallon bottle)	011 00931 000
ADVAGuard 750A Solution, (1 gallon bottle)	011 00932 000
ADVAGuard 750B Powder, (50 gram container)	011 00933 000
ADVAGuard 750B Powder (100 gram container)	011 00934 000
ADVAGuard 750B Powder (500 gram container)	011 00935 000
Lithium Bromide Solution, Molybdate inhibited, (30 gallon drum)	011 00556 000
Lithium Bromide Solution, Uninhibited, (30 gallon drum)	011 00940 000
Refrigerant, De-ionized water (55 gallon drum)	011 00548 000
Lithium Molybdate Inhibitor, Powder, (1lb. bottle)	011 00557 000
Lithium Molybdate Inhibitor, Liquid, (1 pint bottle equals 0.4lb. of Molybdate Powder)	011 00905 000
Lithium Nitrate Inhibitor, Powder, (1lb. bottle)	011 00524 002
Lithium Chromate Inhibitor, Liquid, (1 gallon bottle equals 4lbs. Chromate Inhibitor)	044 01651 000
Lithium Hydroxide Monohydrate, Powder (5lb. can)	044 02985 000
Alcohol, (2-Ethyl -1 -Hexanol), (5 gallon pail)	011 00524 003
Alcohol, (2-Ethyl -1 -Hexanol), 3Kg (1 gallon)	044 02294 000
Adhesive, Gasket (5oz. tube)	013 00995 000
Thread Cleaner (16oz. pump spray bottle, shelf life 1 year)	013 02899 000
Thread Primer (1.75oz. bottle w/brush)	013 01753 000
Thread Sealer, for stainless steel threads (250 ml tube, shelf life 1 year)	013 02280 000
Thread Sealer, for carbon steel threads (250 ml tube, shelf life 1 year)	013 02023 000
Sealer, for carbon wear rings on new style pumps (50 ml bottle, shelf life 1 year)	013 03026 000
Vacuum Sealant, (4oz. can)	013 02882 003
Vacuum Grease (5.3oz. tube)	011 00901 000
Sealer, for tube rolling in Cond., Evap., and Absorber (250 ml bottle)	013 01046 000
Sealer, for tube rolling in Generator (50 ml bottle)	013 02998 000
Heat Conductive Compound, for thermowells in low temp. areas, (4oz. can)	013 00898 000
Heat Conductive Compound, for thermowells in high temp. areas (16oz. can)	013 03083 000
P-80 Rubber Lubricant, (1 pint)	044 01711 000
Oil, YORK Vacuum Pump, (1 gallon bottle)	011 00524 004
Insulation / Adhesive	
Paint, Caribbean Blue touchup, (16oz. spray can)	013 01835 000
Paint, Caribbean Blue (1 gal for spray)	013 01842 000
Paint, Caribbean Blue (5 gal for spray)	013 02510 000

NOTES:

1. Units built between January 1, 1999 and June, 2000 will be lithium molybdate inhibited. Consult unit nameplate for the correct solution inhibitor.
2. Units built after June 2000 will have the ADVAGuard 750 inhibitor.
3. YORK recommends a high-temperature epoxy for installing insulation or insulation pins to the generator. There is no YORK part number for this pro□
4. When ordering ADVAGuard 750B, purchase only what is required. There is no shelf life of this product after container is opened.
5. Original solution concentrations:

	INHIBITOR			
	CHROMATE	NITRATE	MOLYBDATE	ADVAGuard
CONCENTRATION	54%	53%	55%	53%

SERVICE TOOLS

YORK SERVICE TOOLS	
ITEM DESCRIPTION	**PART NUMBER**
500 mL polypropylene hydrometer flask (graduated cylinder)	044 02982 000
Refrigerant removal tank, includes hose and two clamps (hose 5/8” ID x 1.024” OD)	026 32007 002
Bubble count bottle (4 oz. plastic medical vial)	028 08642 000
Ammonia and Alkaline solution test kit	026 32824 000
Chromate corrosion inhibitor test kit (chromate inhibited units only)	026 18304 000
Thermometer, 12” long, 0 to 230°F range (spirit filled)	026 32364 000
Thermometer, 15” long, 0 to 500°F range (spirit filled)	026 32365 000
Thermometer Kit “A”, (contains two thermometers below)	366 34332 000
1) thermometer, 12” long, mercury filled, -30 to 120°F range	026 14087 000
2) thermometer, 12” long, mercury filled, 0 to 230°F range	026 14088 000
Hydrometer Kit, case and set of eight hydrometers (contains 1 thru 8 below)	026 32366 000
1) hydrometer, range .700 to .810 specific gravity	026 32366 001
2) hydrometer, range .800 to .910 specific gravity	026 32366 002
3) hydrometer, range .900 to 1.010 specific gravity	026 32366 003
4) hydrometer, range 1.000 to 1.220 specific gravity	026 32366 004
5) hydrometer, range 1.200 to 1.420 specific gravity	026 32366 005
6) hydrometer, range 1.400 to 1.620 specific gravity	026 32366 006
7) hydrometer, range 1.600 to 1.820 specific gravity	026 32366 007
8) hydrometer, range 1.800 to 2.000 specific gravity	026 32366 008
Solution Sample Kit (Lithium Bromide)	028 15065 000
Spindle Valve Adapter	922 08869 001
Tubing, vacuum pump, clear reinforced, 3/4” ID x 1.024” OD	028 13535 000
Tubing, manometer hose, 1/4” ID x 5/8” OD	028 12514 000
Tubing bubble leak check, clear, 1/4” ID x 3/8” OD	028 10605 000

In addition to the above YORK Service Tools, some non-YORK service tools may be required and must be purchased independently.

NON-YORK SERVICE TOOLS	
ITEM DESCRIPTION	**PART NO.**
Safety glasses	
Rubber gloves	
Water resistant apron	
High intensity flashlight, such as the AA Mini Maglite.	
Gas washing bottle (combination 250 mL polypropylene graduated cylinder and vacuum flask) ideal for taking solution specific gravity. Phone 1-800-323-4340	Cole-Parmer Cat. No P-06652-00
Infrared thermometer, such as the Exergen Microscanner D500F, phone 1-800-422-3006.	
Small utility/transfer pump, such as one of the below;	
TEEL 1/2 hp portable self-priming pump.	Grainger #2P110A
TEEL 1/10 hp self-priming marine utility pump.	Grainger #1P579F
Portable vacuum pump capable of pulling down to 3mm Hg Abs.	
Digital or analog multimeter, such as the Fluke 87.	
Mixed bed de-ionizer (can be rented through local water treatment company).	
Heavy duty plastic garbage cans, approx. 55 gallon size.	
Heavy duty plastic bucket, approx 3 gallon size.	
Miscellaneous; normal mechanics hand tools, 1/4” hose barbs, hose clamps, teflon tape and various connectors for attaching hose to vacuum pump and sample flasks.	
Motor Rotation Detector (order through local Bell & Gossett representative)	

ISOFLOW SPRAY NOZZLES

ISOFLOW SPRAY NOZZLES								
	EVAPORATOR				ABSORBER			
MODEL	PART NO.	QTY.	ORIFICE SIZE	NOZZLE	PART NO.	QTY.	ORIFICE SIZE	NOZZLE
1A1	023 08842 000	26	.235”	1/2GA - 35W	023 09732 000	36	.265”	1/2GA - 50W
1A2	023 08842 000	30	.235”	1/2GA - 35W	023 09732 000	45	.265”	1/2GA - 50W
2A3	023 08842 000	36	.235”	1/2GA - 35W	023 09732 000	51	.265”	1/2GA - 50W
2A4	023 08842 000	40	.235”	1/2GA - 35W	023 09732 000	60	.265”	1/2GA - 50W
2B1	023 10209 000	38	.265”	1/2HH - 50W	023 10209 000	60	.265”	1/2HH 50W
3B2	023 10209 000	44	.265”	1/2HH - 50W	023 10209 000	69	.265”	1/2HH - 50W
3B3	023 10209 000	50	.265”	1/2HH - 50W	023 10209 000	78	.265”	1/2HH - 50W
4B4	023 10209 000	54	.265”	1/2HH - 50W	023 10209 000	87	.265”	1/2HH - 50W
4C1	023 10209 000	44	.265”	1/2HH - 50W	023 10209 000	84	.265”	1/2HH - 50W
5C2	023 10209 000	50	.265”	1/2HH - 50W	023 10209 000	92	.265”	1/2HH - 50W
5C3	023 10209 000	56	.265”	1/2HH - 50W	023 10209 000	104	.265”	1/2HH - 50W
6C4	023 10209 000	62	.265”	1/2HH - 50W	023 10209 000	116	.265”	1/2HH - 50W
7D1	023 10209 000	58	.265”	1/2HH - 50W	375R01992 001	76	-	YORK
7D2	023 10209 000	66	.265”	1/2HH - 50W	375R01992 001	84	-	YORK
8D3	023 10209 000	74	.265”	1/2HH - 50W	375R01992 001	96	-	YORK
8E1	023 10209 000	78	.265”	1/2HH - 50W	375R01992 002	100	-	YORK
9E2	023 10209 000	87	.265”	1/2HH - 50W	375R01992 002	115	-	YORK
10E3	023 10209 000	96	.265”	1/2HH - 50W	375R01992 002	125	-	YORK
12F1	023 10209 000	99	.265”	1/2HH - 50W	375R01992 003	120	-	YORK
13F2	023 10209 000	111	.265”	1/2HH - 50W	375R01992 003	130	-	YORK
14F3	023 10209 000	120	.265”	1/2HH - 50W	375R01992 003	145	-	YORK

ISOFLOW CHILLER SPARE PARTS LIST

It is recommended that certain parts be stocked by the customer to facilitate prompt service in the event of a component failure. Spare parts inventory will, of course, depend upon the degree of self-sufficiency required by the building owner or customer. YORK has prepared two parts lists to handle all conditions in which part replacement would be necessary for the absorption chiller. The first table is for preventive, regular and scheduled maintenance of the chiller, the second table is for emergency chiller repairs due to component failures.

The below table includes parts recommended by YORK to sufficiently service the unit under **normal** circumstances.

PREVENTIVE, REGULAR & SCHEDULED MAINTENANCE SPARE PARTS				
MODEL	**DESCRIPTION**	**QTY**	**PART NUMBER**	**COMMENTS**
ALL	Solution Sample kit	1	028 15065 000	
ALL	Inhibitor (choose only one)	1 lb.	See Chemicals & Compounds section for Part Number	
ALL	Vacuum pump oil	1 gal.	011 00447 000	Old style vacuum pumps only
			011 00524 000	New style vacuum pumps only
ALL	Vacuum Sealant	1	013 02882 003	one 4 oz. can
ALL	Vacuum grease	1	011 00901 000	5.3 oz. tube
ALL	Thread cleaner	1	013 02899 000	one aerosol can
ALL	Thread primer	1	013 01753 000	one 1.75 oz. bottle
ALL	Thread sealer	1	013 02023 000	250 mL tube
ALL	Heat conductive compound - Low temp areas	1	013 00898 000	4 oz. can
ALL	Heat conductive compound - High temp areas	1	013 03083 000	16 oz. can
ALL	Adhesive, gasket	1	013 00995 000	5 oz. tube
ALL	Replacement diaphragm	2	See Valve Section	For 3/4” diaphragm valves
ALL	Replacement diaphragm	3		For 1/2” diaphragm (sample) valves
ALL	Water box pass baffle (channel) gasket [1]	25 ft.	028 08547 000	For water boxes with multiple passes only
—	Generator hear gasket [2]	—	See appropriate Gasket and Elastomer section in this document for correct part number per the design level and model of chiller.	
—	Condenser head gasket [2]	—		
—	Absorber head gasket [2]	—		
—	Evaporator head gasket [2]	—		
—	New motor w/pump repair kit for refrigerant pump	1	See Pump Repair Kits section in this document for part number per the correct voltage and model of chiller.	
—	New motor w/pump repair kit for solution pump	1		
—	Replacement control valve actuator	1	See Valve Section in this document for appropriate replacement actuator.	

NOTES:

1. This gasket is only for heat exchangers with more than one pass. YORK recommends stocking a total of 25 feet for each chiller. This gasket comes on a roll and is ordered by the foot, and can be used on all the heat exchanger water box pass baffles.
2. For design level “B” chillers, the condenser, evaporator and absorber use the same part number gasket. YORK recommends stocking 25 feet of gasket for each heat exchanger water box. These gaskets come on a roll and are ordered by the foot.
3. New style pumps recommend one motor bearing kit and one pump repair kit every 50,000 operating hours. YORK recommends inspecting the motor bearing and pump at 50,000 operating hours and replacement only if necessary. Larger cost items such as new motor with pump r□

ISOFLOW CHILLER EMERGENCY SPARE PARTS LIST

The table below includes parts recommended for **emergency** chiller failures in the event the chiller goes off line and chiller operation must be resumed as soon as possible. The parts in the below table should be stocked **in addition** to the parts listed in the preventive, regular and scheduled maintenance spare parts table.

EMERGENCY SPARE PARTS				
MODEL	**DESCRIPTION**	**QTY**	**PART NUMBER**	**COMMENTS**
ALL	Temperature Sensor (50,000 ohms)	1	025 30457 000	High temperature areas of unit
ALL	Temperature Sensor (3,000 ohms)	1	025 29964 000	Low temperature areas of unit
ALL	Pressure Transducer	1	025 29907 001	Generator PT1
ALL	High temperature cutout switch	1	025 29995 000	HT1
ALL	High pressure cutout switch	1	224 25525 058	HP1
ALL	Low refrigerant temperature cutout switch	1	025 29923 000	LRT
ALL	Fuse	1	025 29905 000	1FU, 7 amp
ALL	I/O expansion board	1	031 01301 001	good for all electrical codes
ALL	Microboard	1	031 01065 002	good for all electrical codes
—	Power supply board	1	See Main Control Panel section of this document for correct part number per the unit electrical code.	
—	Relay control board	1		
—-	Relay control board	1		
—	Digital input board	1		
ALL	EPROM	1	See Note 2	See Note 2
—	Pump contactors	1 each pump	See Power Panel Components section of this document for correct part number per unit voltage, model, and electrical code.	
—	Motor protectors			
—	Primary fuse or Circuit breaker	1		
—	Disconnect switch	1		
ALL	YORK Vacuum Pump V-Belt	1	028 14424 000	208-230/460-3-60 models (belt size 4L415)
ALL	YORK Vacuum Pump V-Belt	1	028 14425 000	380/400/415-3-50 models only (belt size 41-0713)
ALL	YORK Vacuum Pump V-Belt	1	028 14424 000	208-230/460-3-60 models w/TEFC motor (belt size 4L415)
ALL	Temperature Sensor	1	025 28935 000	3,000 ohms
ALL	Rupture Disk	1	See Note 1	

NOTES:

1. See Rupture Disk section of this document for applicable disk per Model No.
2. See Main Control Panel - Common Parts for appropriate EPROM number.

SHIP LOOSE ITEMS LIST

The following is a typical list of ship loose items associated with each chiller shipment. Not all items will be included with each shipment, due to the different options available with each order. Please refer to unit packing list for the specific items pertaining to your order. If it is discovered that a part is missing from the unit ship loose parts, please contact the YORK Factory, Customer Service Department.

Refrigerant and lithium bromide solution are requisition items not included with the unit ship loose parts. These items must be ordered individually by the local YORK office before unit start-up.

Unit sizes 1A1 through 10E3 are shipped standard as a one-piece shipment – unless specially ordered as a two-piece shipment. Refer to the Factory Order Sheet to determine if this special has been ordered for your unit.

Unit sizes 12F1 through 14F3 are shipped standard as a two-piece shipment.

ONE-PIECE SHIPMENT

P/N / ITEM	SUB-ITEM P/N	DESCRIPTION	UNITS	QTY	UOM
366K21457 000		Assembly in Field Instructions	All	1	each
	026 09261 000	Absolute Pressure Gauge (Mercury)		1	each
	367K66030 000	Connection Assembly 1/4” flare		1	each
	023 02763 000	Straight Connector 1/4 flare x 1/2 NPTE		1	each
	023 00927 000	Connector 1/4 flare x 1/4 NPTE		1	each
	021 03835 000	Screw Pan Head #10 1”		2	each
	064K22131 000	Copper Tube 1/4”		1	each
	021 05661 000	Nut 45° Flare 1/4” OD copper tube		2	each
	021 00435 000	Nut Hex Mach screw #10		2	each
366K52163 000		Assembly Instructions Flow Switch	All	1	each
	024 15793 000	Flow Switch 150 PSI		1	each
	066 67309 000	Half Coupling		1	each
035 02228 000		Forms Kit	All	1	each
	Form 155.16-OM1	Operating & Maintenance Instructions		1	each
	Form 155.16-N3	Installation Instructions		1	each
	Form 155.16-NO8	Installation & Operation (Printer)		1	each
	Form 155.16-O3	Operator Manual		1	each
035R00090 000		Wiring Diagram	50 Hz	1	each
035R00089 000		Wiring Diagram	60 Hz	1	each
035R00074B000		Visual Aid for locating the sensors	Steam	1	each
035R00075B000		Visual Aid for locating the sensors	Hot Water	1	each
044 02294 000		Alcohol (2-Ethyl 1- Hexanol) (1 Gallon)	1A1 - 6C4	1	each
044 02294 000		Alcohol (2-Ethyl 1- Hexanol) (1 Gallon)	7D1 - 14F3	2	each
013 00898 000		Heat Conductive Compound	All	1	each
028 08642 000		Clear Plastic Vial	All	1	each
028 13535 000		Hose, 3/4” ID x 1.024” OD	All	3	ft
021 12930 000		Clamp Hose	All	2	each
035R00121 000		Visual Aid for Vacuum Pump Assembly	All	1	feet
CAT1407K-11		Oil Vacuum Pump	All	1	liter
922 08869 001		Spindle Valve Adapter	All	1	each

ONE-PIECE SHIPMENT (CONTINUED)

P/N / ITEM	SUB-ITEM P/N	DESCRIPTION	UNITS	QTY	UOM
See unit packing list		Unit Control Valve	Optional (see order)	1	each
025 30458 000		Condensate Drain Solenoid Valve refer to 155.16-N3	Steam Units 1A1-4B4 50 HZ Only	1	each
025 30459 000		Condensate Drain Solenoid Valve refer to 155.16-N3	Steam Units 4C1-14F3 50 HZ Only	1	each
025 30461 000		Condensate Drain Solenoid Valve refer to 155.16-N3	Steam Units 1A1-4B4 60 HZ Only	1	each
025 30462 000		Condensate Drain Solenoid Valve refer to 155.16-N3	Steam Units 4C1-14F3 60 HZ Only	1	each
JB8 Electrical Box Assy 50 Hz		JB8 Electrical Box Assembly for 6 SOL	Steam Units 50 Hz VDE	1	each
	025 31332 000	Electrical Box		1	each
	025 29167 000	Din Rail		3	inch
	021 13783 000	Screws		2	each
	025 31442 000	Terminal Block		2	each
	025 31446 000	Terminal Marker		4	each
	025 29189 000	End Din Rail		2	each
	025 31426 000	Nipple conduit close		1	each
	025 31427 000	Bushing conduit threaded		2	each
	025 31307 000	Conduit 3/4 1 inch length		1	each
JB8 Electrical Box Assy 60 Hz		JB8 Electrical Box Assembly for 6 SOL	Steam Units 60 Hz	1	each
	025 01146 000	Electrical Box		1	each
	025 01732 000	Cover for electrical Box		1	each
	025 21104 000	Nipple conduit close		1	each
	025 10372 000	Ferr splice cap		2	each
	025 10371 000	Insulator electric		2	each
	025 04866 000	Bushing conduit threaded		1	each
	025 05701 000	Nut		1	each
	025R00131 000	Rigid conduit 1 inch length		1	each
024 15793 000		Additional flow switch 150 PSI	Optional 150 PSI	1	each
024 12144 000		Additional flow switch 300 PSI	Optional 300 PSI	1	each
031 00814 000 and 031 00827 000		Remote Interface Card 1	Optional	1	each
031 00814 000 and 031 00827 000		Remote Interface Card 2	Optional	1	each
(2) 031 00814 000 and (1) 031 00827 000		Remote Interface Card 1 + 2	Optional	1	each

ONE-PIECE SHIPMENT (CONTINUED)

P/N / ITEM	SUB-ITEM P/N	DESCRIPTION	UNITS	QTY	UOM
366K29813 000		Isolation Pads assembly	Optional 1A1 - 2A4	1	each
	366K29814 000	Isolation Pads		4	each
367K67606 000		Isolation Pads assembly	Optional 2B1 - 4B4	1	each
	367K67439 000	Isolation Pads		4	each
367K67607 000		Isolation Pads assembly	Optional 4C1 - 6C4	1	each
	367K67440 000	Isolation Pads		4	each
367K67608 000		Isolation Pads assembly	Optional 7D1 - 8D3	1	each
	367K67441 000	Isolation Pads		4	each
367K78184 000		Isolation Pads assembly	Optional 8E1 - 10E3	1	each
	367K78185 000	Isolation Pads		4	each
366K06736 000		Isolation Pads assembly	Optional 12F1 - 14F3	1	each
	366K07185 000	Isolation Pads		4	each

SPLIT SHIP UNITS

P/N / ITEM	SUB-ITEM P/N	DESCRIPTION	UNITS	QTY	UOM
Split shipment 1A1 - 1A2		Split shipment	Optional 1A1 & 1A2	1	each
	066R11530 000	Pipe 1-1/2 x 10”		1	each
	066R12499 000	Pipe 1-1/2 x 7”		1	each
	023 02462 000	Reduction 3 to 2-1/2”		1	each
	023 02459 000	Reduction 3 to 1-1/2”		1	each
	035R00093 000	Drawing for split shipment assembly		1	each
Split shipment 2A3 - 2A4		Split shipment	Optional 2A3 & 2A4	1	each
	066R11530 000	Pipe 1-1/2 X 10”		1	each
	066R11526 000	Pipe 1/2 x 10”		1	each
	066R12499 000	Pipe 1-1/2 x 7”		2	each
	023 02462 000	Reduction 3 to 2-1/2”		1	each
	023 02459 000	Reduction 3 to 1-1/2”		1	each
	035R00093 000	Drawing for split shipment assembly		1	each
Split shipment 2B1 - 4B4		Split shipment	Optional 2B1 - 4B4	1	each
	066R11537 000	Pipe 2 x 10”		1	each
	066R11526 000	Pipe 1/2 x 10”		1	each
	066R12499 000	Pipe 1-1/2 x 7”		2	each
	023 09892 000	Reduction 3-1/2 to 2		1	each
	066R12612 000	Pipe 3-1/2 x 6”		1	each
	035R00094 000	Drawing for split shipment assembly		1	each
Split shipment 4C1 - 5C3		Split shipment	Optional 4C1 - 5C3	1	each
	066R11545 000	Pipe 2-1/2 x 10”		1	each
	066R11526 000	Pipe 1/2 x 10”		1	each
	066R12500 000	Pipe 2 x 7”		2	each
	023 02490 000	Reduction 4 to 2-1/2		1	each
	066R12613 000	Pipe 4 x 5”		1	each
	035R00095 000	Drawing for split shipment assembly		1	each
Split shipment 6C4		Split shipment	Optional 6C4	1	each
	066R11545 000	Pipe 2-1/2 x 10”		1	each
	066R11526 000	Pipe 1/2 x 10”		1	each
	066R12500 000	Pipe 2 x 7”		2	each
	023 02490 000	Reduction 4 to 2-1/2		1	each
	066R12613 000	Pipe 4 x 5”		1	each
	021 01598 000	Screw 1/2 x 3-1/2		4	each
	021 11154 000	Nut Hex 1/2” 13 UNC-2B		4	each
	035R00095 000	Drawing for split shipment assembly		1	each

SPLIT SHIP UNITS (CONTINUED)

P/N / ITEM	SUB-ITEM P/N	DESCRIPTION	UNITS	QTY	UOM
Split shipment 7D1 - 8D3		Split shipment	Optional 7D1 - 8D3	1	each
	066R11545 000	Pipe 2-1/2 x 10”		1	each
	066R11526 000	Pipe 1/2 x 10”		1	each
	066R12500 000	Pipe 2 x 7”		2	each
	025 02510 000	Reduction 5 to 4”		1	each
	023 02507 000	Reduction 5 to 3”		1	each
	023 02475 000	Elbow 4”		1	each
	021 02097 000	Screw 3/4 x 3-1/2”		4	each
	021 00504 000	Nut Hex 3/4”		4	each
	035R00096 000	Drawing for split shipment assembly		1	each
Split shipment 8E1 - 10E3		Split shipment	Optional 7D1 - 8D3	1	each
	066R11526 000	Pipe 1/2 x 10”		1	each
	066R11527 000	Pipe 3 x 10”		1	each
	067 82917 000	Pipe 2-1/2 x 8”		2	each
	025 02509 000	Reduction 5 to 3-1/2”		1	each
	023 02527 000	Reduction 6 to 5”		1	each
	023 02495 000	Elbow 5”		1	each
	021 02097 000	Screw 3/4 x 3-1/2”		4	each
	021 00504 000	Nut Hex 3/4”		4	each
	035R00097 000	Drawing for split shipment assembly		1	each
Split shipment 12F1 - 14F3		Split shipment	Mandatory 12F1-14 F3	1	each
	067 82917 000	Pipe 2-1/2 x 8”		2	each
	067 78356 000	Pipe 3-1/2”		1	each
	067 75548 000	Pipe 3/4”		1	each
	023 07828 000	Reduction 6 to 4”		1	each
	023 02527 000	Reduction 6 to 5”		1	each
	023 02495 000	Elbow 5”		1	each
	023 02513 000	Elbow 6”		1	each
	035-02274C000	Drawing for split shipment assembly		1	each

APPENDIX A

Franklin Pump Retrofit Program

YORK has exclusively used Franklin Electric pumps on the Single-stage absorption product line from the mid 1960's till the mid 1990's. The majority of those units are still in operation today. Unfortunately, Franklin Electric no longer supports the renewal parts market for these pumps and consequently YORK's supply of renewal parts at the Baltimore Parts Distribution Center (PDC) is all but depleted. In response, YORK has launched a retrofit program that will directly replace most 50 and 60 Hz absorption chiller Franklin pumps with a new style YORK retrofit pump. These new style pumps are a complete motor/pump assembly and are engineered for each application to be a direct replacement for the Franklin Electric pump.

The new style retrofit pump includes the following features:

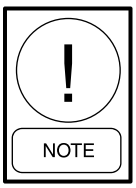
- The retrofit pump will directly replace the Franklin OEM pump. No isolation valves or flow setting devices are needed. The new pump will match the original OEM pump's duty point.
- The retrofit pump bolts directly to the original pump flange on the unit.
- The retrofit pump will use the pumping fluid to cool the pump motor. The original unit's motor coolant system (used to cool the Franklin pumps) is not utilized for the retrofit application.
- The new style pump is a complete pump/motor assembly. The pump will come in a kit form that includes many of the materials necessary to complete the installation*.
- The new style pumps will have a complete line of renewal pump parts kits. Four kits are available that will handle any type of pump failure.

* In some situations, additional items may be needed to complete the installation.

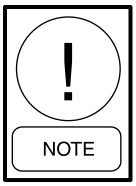
GENERAL

The new style retrofit pumps have a proven reliability record. YORK has been using this type of pump/motor arrangement on the absorption product line for over a decade. Each pump duty point for all models of single-stage chillers were reviewed and matched closely to every retrofit pump selection.

There are certain YORK single-stage chiller models that cannot be retrofitted. These models are: EG, EH and EK units. These chillers are YORK's earliest models and the original pump arrangement differs from today's design. YORK can retrofit models: EL, EM, ER, ES and early YIA.



Pump selection tables only cover models ES and earlier YIA units. For retrofit pump selections on EL, EM and ER units, please contact YORK Product Technical Support and provide the unit voltage, pump type and whether or not the unit has a solution control valve for pump selection.



Please read this document in its entirety before ordering any materials for the retrofit job. Due to the various models of chillers produced over the years, not all situations and conditions will be the same. Each retrofit pump task may require different materials. Knowing the retrofit details and proper planning are the key ingredients for a smooth retrofit with minimal unit down time.

HARDWARE INSTALLATION OVERVIEW

In short, the retrofit job will require taking the unit out of service, breaking the vacuum, removal/installation of the pumps, wiring, leak checking and re-commissioning the unit.

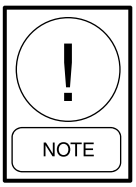
There will be some jobs where additional items, not included in the kits, will be required to complete the retrofit pump task. Many of these items are called out in this document with their associated YORK part numbers. However some parts such as; wiring, electrical conduit, connectors, pump mounting brackets, fastening hardware, ty-wraps, etc must be purchased locally. Please see TABLE 6 for miscellaneous tools and materials.

The major difference between the original OEM Franklin pump and the new style of pumps is the method of motor cooling. The original units with Franklin pumps have an external hermetic pump motor cooling system incorporated on them. This system retained some of condensed refrigerant from the condenser section in an external coolant reservoir. As the unit operated, the coolant water would flow down from this tank and into the pump motor, cooling the motor and lubricating the motor bearings. The cooling water in each pump is sealed from the pumping fluid of the pump impeller by means of a shaft seal.

The new style pumps use a motor cooling mechanism that does not require a separate motor cooling system. A small portion of the pumping fluid is directed through the pump motor and around the bearings to prevent overheating and provide lubrication. A flow diagram schematic of this is shown in YORK form 155.16-OM1, page 35.

Since the new style pump uses pumping fluid to cool the motor, it is not wise to run the pump dry or motor overheating may occur. This situation is more likely to occur on the refrigerant pump, due to various operational conditions that may occur during refrigerant pump operation. YORK employs a refrigerant pump cutout float switch mounted in the suction line just before the pump suction to avoid the motor overheating.

Please make note that the new style pump's motor HP may not match the original OEM Franklin pump's motor HP. Don't be alarmed if this happens in your situation. There will be a limited number of cases where the new style motor HP will not match the original pump motor's HP. If this happens, you may need to upgrade the motor contactor and overloads in the unit's panel to suit the new motor. All motor FLA's according to the motor voltage are listed in the following tables. Obtain the FLA range of the existing OEM motor's contactor and overload then compare that value with the value in the tables. If the amps for the new style motor are out of range for the existing contactor and overload, order a new contactor and overload along with the kit.



The retrofit pump selections in the following tables are selected for units that did NOT have the solution control valve installed. If you require a retrofit selection and your unit has an operational solution control valve, please contact YORK Product Technical Support.

TABLE 1 – 208/230/460 Volts, 60 Hz Units, Solution Pumps

Unit model ES / YIA	Retrofit Kit Part Number	Impeller OD (inches)	OEM Pump (HP)	New Pump (HP)	Pump In/out (inches)	RPM	Motor FLA 208/230/460	Contactors		Overloads (sized for 1.25 service factor)		Pump Type
								208/230 volts	460 volts	208/230 volts	460 volts	
1A1	326 37916 001	6	3	3	4/2	1750	10.8/10.7/5.3	024 25584 000	024 25521 000	024 25518 000	024 25519 000	A
1A2	326 37916 001	6										
2A3	326 37916 001	6										
2A4	326 37917 001	6-1/4										
2B1	326 37916 001	6										
3B2	326 37916 001	6										
3B3	326 37917 001	6-1/4										
4B4	326 37917 001	6-1/4										
4C1	326 37917 001	6-1/4										
5C2	326 40580 002	6-1/4	5	5			17.0/17.0/8.0		024 25526 000	024 27284 000		
5C3	Not Available											
6C4												
7D1												
7D2	326 41578 000	9-3/4	5	7-1/2	6/3	1150	32.8/35.0/17.5	024 25585 000	024 25526 000	024 25582 000	024 2784 000	B
8D3			7 1/2									
8E1	Not Available											
9E2												
10E3												
12F1												
13F2												
14F3												

TABLE 2 – 208/230/460 volts, 60 Hz Units, Refrigerant Pumps

Unit Model ES / YIA	Retrofit Kit Part Number	Impeller OD (inches)	OEM Pump (HP)	New Pump (HP)	Pump In/out (inches)	RPM	Motor (FLA) 208/230/460	Contactors		Overloads (sized for 1.25 service factor)		Pump Type
								208/230 volts	460 volts	208/230 volts	460 volts	
1A1	326 37918 001	6-1/2	3	3	4/2	1750	10.8/10.7/5.3	024 25584 000	024 25521 000	024 25518 000	024 25519 000	A
1A2	326 37918 001	6-1/2										
2A3	326 37918 001	6-1/2										
2A4	326 37918 001	6-1/2										
2B1	326 37919 001	6-11/16										
3B2	326 37918 001	6-1/2										
3B3	326 37919 001	6-11/16										
4B4	326 37919 001	6-11/16										
4C1	326 37919 001	6-11/16										
5C2	326 37918 001	6-1/2										
5C3	326 37918 001	6-1/2										
6C4	326 40576 002	7	5	5			17.0/17.0/8.0		024 25526 000	024 27284 000		
7D1	326 40576 002	7										
7D2	326 40575 002	6-11/16										
8D3	326 40576 002	7										
8E1	326 40576 002	7										
9E2	Not Available											
10E3	326 41579 000	10-1/8	5	7-1/2	6/3	1150	32.8/35.0/17.5	024 25585 000	024 25526 000	024 25582 000	024 27284 000	B
12F1	326 41579 000	10-1/8										
13F2	326 41579 000	10-1/8	7-1/2									
14F3	326 41579 000	10-1/8										

TABLE 3 – 190/380 volts, 50 Hz Units, Solution Pumps

Unit Model ES / YIA	Retrofit Kit Part Number	Impeller OD (inches)	OEM Pump (HP)	New Pump (HP)	Pump In/out (inches)	RPM	Motor (FLA) 190/380	Contactors		Overloads (sized for 1.25 service factor)		Pump Type
								190 volts	380 volts	190 volts	380 volts	
1A1	326 37921 001	7-3/8	3	3	4/2	1450	12.2/6.0	024 25584 000	024 25526 000	024 2518 000	024 25519 000	A
1A2	326 37921 001	7-3/8										
2A3	326 37920 001	7										
2A4	326 37921 001	7-3/8										
2B1	326 37920 001	7										
3B2	326 37921 001	7-3/8										
3B3	326 37921 001	7-3/8										
4B4	326 37921 001	7-3/8	5									
4C1	326 37921 001	7-3/8										
5C2	326 40584 002	7-3/4		5			19.0/9.0		024 25584 000	024 27285 000	024 25518 000	
5C3	326 40584 002	7-3/4										
6C4	326 41580 000	10-1/2		7-1/2	6/3	950	37.8/19.0	024 25585 000	024 25585 000	024 27288 000	024 27285 000	B
7D1	326 41580 000	10-1/2										
7D2	326 41581 000	11-7/8										C
8D3	326 41581 000	11-7/8	7-1/2									
8E1	326 41582 000	11-3/8										
9E2	326 41582 000	11										
10E3	Not Available											
12F1	326 41584 000	10-1/8	3	7-1/2	6/3	950	37.8/19.0	024 25585 000	024 25585 000	024 27288 000	024 27285 000	B
13F2	326 41584 000	10-1/8										
14F3	326 41584 000	9-3/4										

TABLE 4 – 190/380 volts, 50 Hz Units, Refrigerant Pumps

Unit Model ES / YIA	Retrofit Kit Part Number	Impeller OD (inches)	OEM Pump (HP)	New Pump (HP)	Pump In/out (inches)	RPM	Motor (FLA) 190/380	Contactors		Overloads (sized for 1.25 service factor)		Pump Type
								190 volts	380 volts	190 volts	380 volts	
1A1	326 37923 001	8	3	3	4/2	1450	12.2/6.0	024 25584 000	024 25526 000	024 25518 000	024 2519 000	A
1A2	326 37922 001	7-3/4										
2A3	326 37922 001	7-3/4										
2A4	326 37922 001	7-3/4										
2B1	326 37923 001	8										
3B2	326 37923 001	8										
3B3	326 37922 001	7-3/4										
4B4	326 37922 001	7-3/4										
4C1	326 37923 001	8										
5C2	326 37923 001	8										
5C3	326 37923 001	8										
6C4	326 40578 002	8-1/4	5	5			19.0/9.0		024 25584 000	024 27285 000	024 25518 000	
7D1	326 40579 002	8-1/4										
7D2	326 40578 002	8-1/4										
8D3	326 40578 002	/4										
8E1	326 41586 000	10-3/4		7-1/2	6/3	950	37.2/19.0	024 25585 000	024 25585 000	024 27288 000	024 27285 000	B
9E2	326 41587 000	11-7/8										C
10E3	326 41587 000	11-7/8										
12F1	326 41588 000	12-1/8	7-1/2									
13F2	326 41587 000	11-7/8										
14F3	326 41588 000	12-1/8										

TABLE 5 – 190/380 volts, 50 Hz Units, Absorber Spray Pumps

Unit Model ES / YIA	Retrofit Kit Part Number	Impeller OD (inches)	OEM Pump (HP)	New Pump (HP)	Pump In/out (inches)	RPM	Motor (FLA) 190/380	Contactors		Overloads (sized for 1.25 service factor)		Pump Type
								190 volts	380 volts	190 volts	380 volts	
10E3	326 37920 001	7	3	3	4/2	1450	12.2/6.0	024 25584 000	024 25526 000	024 25518 000	024 25519 000	A
12F1	326 37920 001	7										
13F2	326 37920 001	7										
14F3	326 37919 001	6-11/16										

Notes for Tables 1 – 5:

1. For unit models ER, EM, and EL, contact YORK Product Technical Supprot for pump selection.

2. In some situations the retrofit pump motor HP's will not match the original pump motor HP. In these cases, the motor contactors and overloads will need to be recalibrated or replaced with a different device. If the new pumps FLA is out of range for the units existing contactor and overload, replacement will be required.

3. Kit contents**:**

Solution Pump Kits	2" Outlet / 4" Inlet (Style A pumps)	3" Outlet / 6" Inlet (Style B & C pumps)
Suction flange gasket	067 53559 000	067 58740 000
Discharge flange gasket	070 12519 000	067 53560 000
Refrigerant Pump Kits		
Suction flange gasket	067 53559 000	067 58740 000
Discharge flange gasket	070 12519 000	067 53560 000
3F float switch	024R00130 000	024R00130 000
3F float switch enclosure	375R00229 000	375R00229 000

REQUIRED TOOLS FOR UNIT MODIFICATION

Miscellaneous tools and other items necessary for unit modification. The following list of materials and tools should be on hand prior to beginning the retrofit job.

TABLE 6 – Tools Used for Unit Modification

QTY.	DESCRIPTION	YORK P/N	TO BE USED WITH
●	Nitrogen Bottles and Low Pressure Regulator	-	All Retrofits
●	Hose and Fittings for Nitrogen Connection to Purge Piping	-	All Retrofits
●	Plastic Garbage Cans W/ Lids	-	All Retrofits
2	Rubber Collars	025 28950 000	Ref. Pump Retrofits
2	Contact Receptacles	025 28952 000	Ref. Pump Retrofits
1	Two Pin Housing	025 28951 000	Ref. Pump Retrofits
-	TIG Welding Equipment		Ref. Pump Retrofits
-	Angle Grinder W/ Metal Grinding/Cutting Wheel		Ref. Pump Retrofits
1	Loctite Thread Cleaner	013 02899 000	Ref. Pump Retrofits
1	Loctite Thread Primer	013 01753 000	Ref. Pump Retrofits
1	Loctite Thread Sealer	013 02023 000	Ref. Pump Retrofits
1	Soap Solution or Hand Held R-22 Leak Detector		All Retrofits
●	R-22 (to be used as trace gas for leak detection)		All Retrofits
●	Paint, Caribbean Blue	013 01835 000	All Retrofits
1	Hose Barb, 1/2" NPTE x 3/4"	023 18224 000	All Retrofits
1	Hose Clamp	023 08856 000	All Retrofits
●	Hose 3/4" O.D.	028 13535 000	All Retofits
1	Torque Wrench w/ 9/16" or 15/16" Socket		All Retrifits
1	Small Hydraulic Floor Jack		All Retrofits
●	1" Angle Iron for Motor Support		All Retrofits
●	5/16" All Thread Rod bent in "U" shape for motor Support		All Retrofits
●	5/16" Nuts, Flat & Lock Washers		All Retrofits
1	Time Delay Relay w/ Sub-base	024 35096 000+	See Notes
1	Microboard	031 01065 002**	See Notes
1	EPROM	031 02513 001***	See Notes
●	2-Wire Shielded Cable	025 28701 002	Ref. Pump Retofits
2	Insulated Spring Terminal	025 18732 000	Ref. Pump Retrofits
1	Un-Insulated Straight Push-On Terminal	025 06874 000	Ref. Pump Retrofits

Notes:

● To be determined in field.

\+ Only order if installing a retrofit refrigerant pump on a chiller with an electro-mechanical unit control panel.

** Order only if retrofitting the refrigerant pump and when existing micro board does not match this part number.

*** Order this item when ordering the micro board.

SOLUTION PUMP INSTALLATION PROCEDURE

1. Break the unit vacuum by using an inert gas such as nitrogen. Disconnect and lock-out electrical power to unit.
2. Connect fittings and hoses to unit service valves and remove the solution and refrigerant charge from the unit. Store charge in plastic covered containers. While the charge is draining out of the unit, add additional amounts of nitrogen into the unit to replace the charge volume.

Be careful to not allow air to enter the unit during this procedure. Refer to form 155.17-M3 for details.

3. Remove the wiring from inside the motor terminal box, loosen the motor coolant lines, and unbolt the Franklin pump/motor assembly from the unit-piping flange.

Careful, motor/pump assembly is heavy! Position hydraulic floor jack under and against motor/pump assembly before loosening the flange bolts. Always keep hands or feet out from under the motor/pump assembly!

4. If retaining one or more of the original Franklin pumps, reconnect the motor coolant line by connecting the motor coolant inlet line to the motor coolant outlet line. This will keep the motor coolant system working to cool the remaining Franklin pump motor(s) on the unit. If you are replacing all unit pumps to the new style, the motor coolant system will no longer be needed. In this case, cap off all motor coolant system connections and jumper-out the motor coolant level switch.
5. Remove the motor/pump assembly. Clean the existing flanges remaining on the unit piping. Make sure all remnants of the original gaskets have been removed from the contact faces.
6. Install the new style pump making sure the motor drain holes are at the bottom of the motor, facing the floor. Make sure the pump/motor assembly is well supported. Install a “T” bracket with "U"-bolt if necessary (see FIG. 1). Do not let the motor hang un-supported!

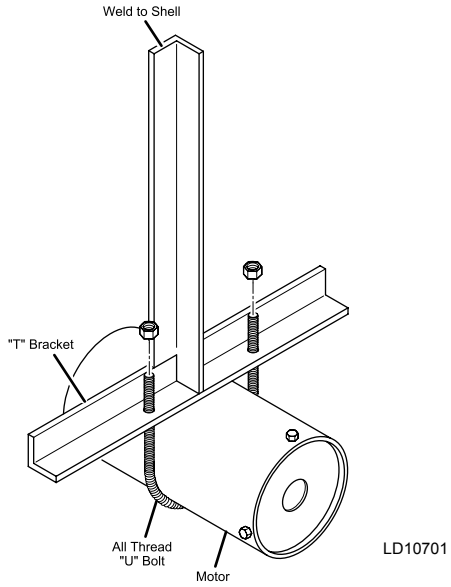
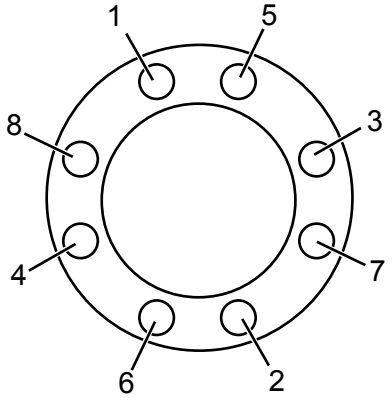


FIG. 1 – "T" Bracket Mounting

7. Install suction and discharge flange gaskets, bolts, lock washers, and nuts. Evenly tighten the nuts and bolts using a criss-cross tightening sequence (see illustration below). Step torque the flange bolts in accordance to the flange size in the below table

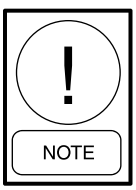
TABLE 7 - Torque Values

Flange Diameter	Step Torque Sequence
2 inch	15 ft-lbs - 30 ft-lbs
3 inch	25 ft-lbs - 50 ft-lbs
4 inch	27.5 ft-lbs - 55 ft-lbs
6 inch	37.5 ft-lbs - 75 ft-lbs



8. Re-connect the motor lead wires to the new motor terminals use the existing wire nuts. Connect unit wires 71 and 83 to the motor's thermal over-load switch.
9. If the new style pump motors requires a different motor contactor and overload, install it in the panel. If not, compare the new style motor's FLA's to the value setting on the existing overloads in the panel, recalibrate as necessary. If the new motor's FLA exceeds the range valve of the contactor and overload, replacement will be required. Refer to tables 1 - 5 of this document for the YORK part number.
10. Increase the internal unit pressure to 4.0 psig using nitrogen. Check for leaks on the pump flange and any other connections made during the installation, use the soap solution method or R-22 tracer gas method for leak checking.
11. After all leaks are checked and/or repaired, pull the unit into vacuum and re-charge it with solution and refrigerant.
12. Check the motor rotation before commissioning the unit. The easiest way to do this is to use a "motor rotation detector". See YORK literature supplement letter 155.17-RP3 (LS5) to obtain this device.

Another method to check motor rotation is to connect a compound gauge to the appropriate sample valve near the discharge of the pump. Briefly operate the pump and open the valve. Read and record the delivery pressure of the pump. Shut the pump off and disconnect the power to the unit. Switch any two leads around on the pump terminals. Reconnect the power to the unit and briefly operate the pump again. Read and record the delivery pressure of the pump. The higher of the two readings will indicate correct pump rotation direction.



Reconnecting the wires on the motor in the same manner that they came off the old motor will not always make the pump rotate in the correct direction.

REFRIGERANT PUMP INSTALLATION PROCEDURE

1. Follow steps 1 through 5 under solution pump installation procedure. However, do not install the pump at this time.
2. On the vertical section of the refrigerant suction line just before the pump inlet, cut two vertical slots per the dimensions in accordance to the below table and figures. Make sure the correct dimensions are used in accordance with the model number of your unit. Use an angle grinder with metal cutting wheel to cut the slots.

TABLE 8 - 3F Float Switch Dimensions

Model*	"A"	"B"	"C"	Pipe Ø	
				60 Hz	50 Hz
FAM A	6-3/8"	9-5/8"	10-1/2"	4"	4"
FAM B	8-5/8"	11-7/8"	12-3/4"	4"	4"
FAM C	10-7/8"	14-1/8"	15"	4"	4"
FAM D	12-3/8"	15-5/8"	16-1/2"	4"	4"
FAM E	11-7/8"	15-1/8"	16"	4" 8E1 & 9E2	4" 8E1
FAM F	15"	18-1/4"	19-1/8"	6" & 10E3	6" & 9E2, 10E3

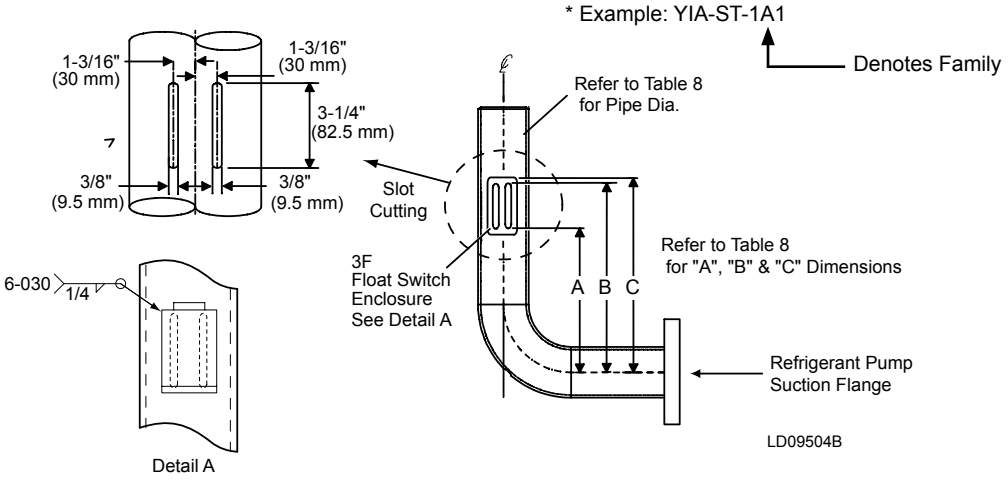


FIG 2 - Location of Float Switch Slots & Enclosure

3. Weld the 3F float switch enclosure over the two slots as shown in figure. Refer to YORK's welding and cutting details form 155.17-M3 for proper technique on how to do this.
4. Remove all metal fragments, grinding dirt, welding slag, and any other debris created from the preceding steps from the inside of the refrigerant line and the interior of 3F enclosure before going any further.
5. Follow steps 6 and 7 under solution pump installation procedure. Connect unit wires 70 and 84 for the motor thermal over-load switch.
6. If it was determined the new style pump motor requires a different motor contactor and overload, install it in the panel. If not, compare the new style motor's FLA's to the value setting on the existing overloads in the panel, recalibrate as necessary. If the new motor's FLA exceeds the range valve of the contactor and overload, replacement will be required. Refer to tables 1 - 5 of this document for the YORK part number.

NOTE

Before installing the 3F float switch, it must be checked for proper operation using one of the following methods:

a. Manually move the graphite float up and down on the stem between the factory set collars. Listen for a "clicking" sound as the float makes and breaks the switch contacts. When the float is in the up position, continuity is made, when the float is down continuity is broken.

b. Connect an ohmmeter to the float switches leads and move the graphite float up and down as mentioned above. Watch the ohmmeter, continuity should make and break as the float is moved.

7. Install the 3F refrigerant float switch according to YORK form 155.17-NM1 (SB3) thread joint procedure. Make sure the float is able to move freely on the shaft without touching the walls of the enclosure.
8. Increase the internal unit pressure to 4.0 psig using nitrogen. Check for leaks on the pump flange, 3F float switch treads, enclosure welding, and any other connections made during the installation. Use soap solution or R-22 tracer gas for leak checking.
9. Wire the 3F float in accordance to one of the following methods that best fits your application:

a. For units with micropanel control and all the pumps are to be retrofitted to the new style; Remove the original wiring to the motor coolant level switch and install the 3F float switch wiring in its place. The 3F float switch wiring will terminate on terminal 11 on the digital input board. Use an insulated spring spade terminal, for this connection. The micro board part number should be 031 01065 002, if it is not replace it. This micro board will support all versions of YORK EPROM's. However, it is suggested to install version A.02F.06 EPROM, P/N 031 02513 001 for the retrofit.

b. For units with micropanel control and at least one pump on the unit will remain the old style: Wire as shown in the below figure. The micro board part number should be 031 01065 002, if it is not replace it. This micro board will support all versions of YORK EPROM's. However, it is suggested to install version A.02F.06 EPROM, P/N 031 02513 001 for the retrofit.

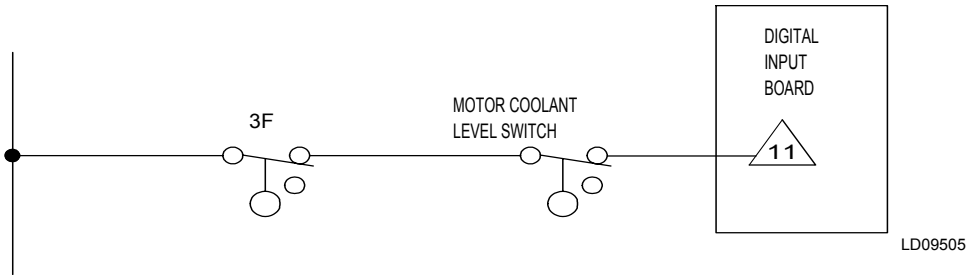
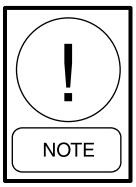


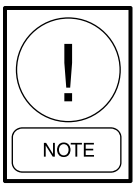
FIG 3 - Wiring for Float Switch (Micropanel Control)

c. For units with an electro-mechanical control panel and all pumps are to be retrofitted to the new style pumps; remove the original wiring from the motor coolant level switch and install a jumper in its place (on some units this wiring will be between terminals 6 & 7 just ahead, and in series, of the refrigerant pump motor starter). Follow wiring in figure 3 to install the 3F refrigerant pump float switch.



A time delay relay is required for this application, which is NOT part of the retrofit kit contents. Order part number 024 35096 000 for this devise.

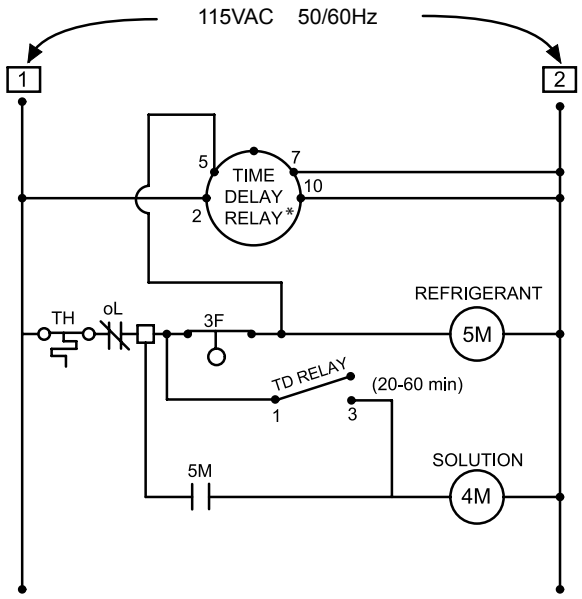
d. For units with an electro-mechanical control panel and at least one pump on the unit will remain the old style; keep the motor coolant level switch intact and install the 3F refrigerant pump float switch as shown in FIG 4.



A time delay relay is required for this application, which is NOT part of the retrofit kit contents. Order part number 024 35096 000 for this devise.

NOTE

Typical wiring may be different from what is shown.



*NOTE: The timer relay will be used for delaying solution pump shutdown. This will happen when 3F opens.
The timer should initially be set at 8 minutes; re-adjust accordingly to jobsite conditions after chiller is commissioned.

FIG. 4 -Wiring for refrigerant Pump Float Switch (Electro-Mechanical Control)

10. After all leaks are checked and/or repaired, pull the unit into vacuum and re-charge it with solution and refrigerant.
11. Follow step 12 under the above solution pump installation procedure to complete the installation.

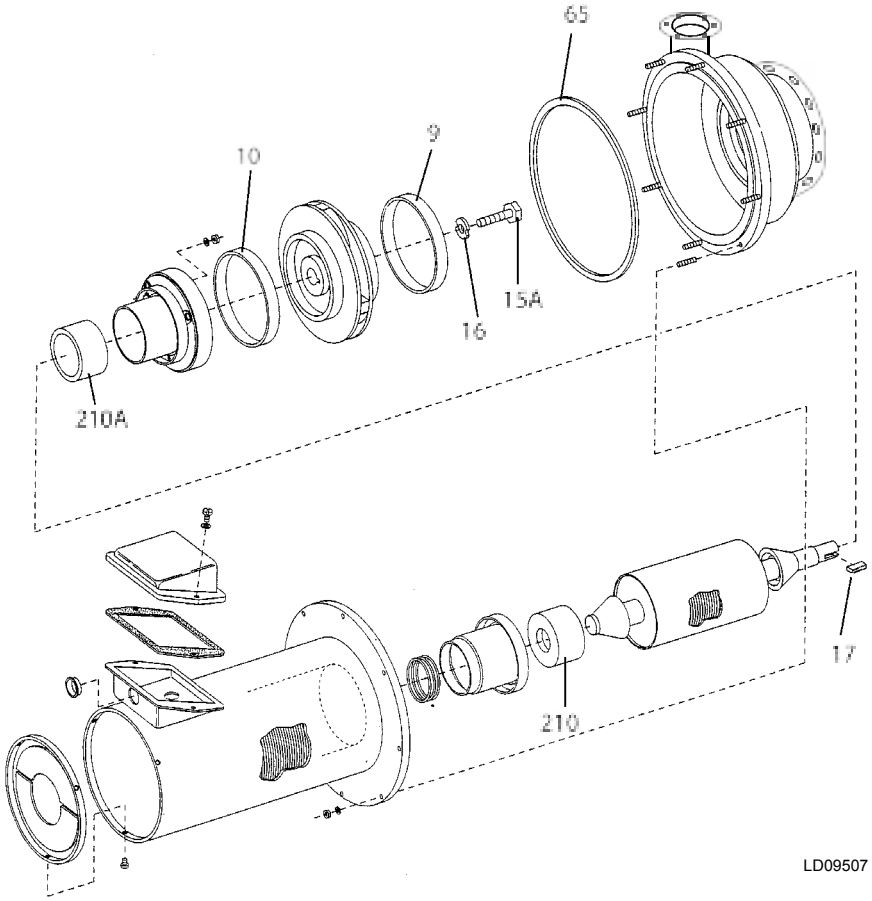


FIG. 5 – Exploded View of Pump, All Pump Styles.

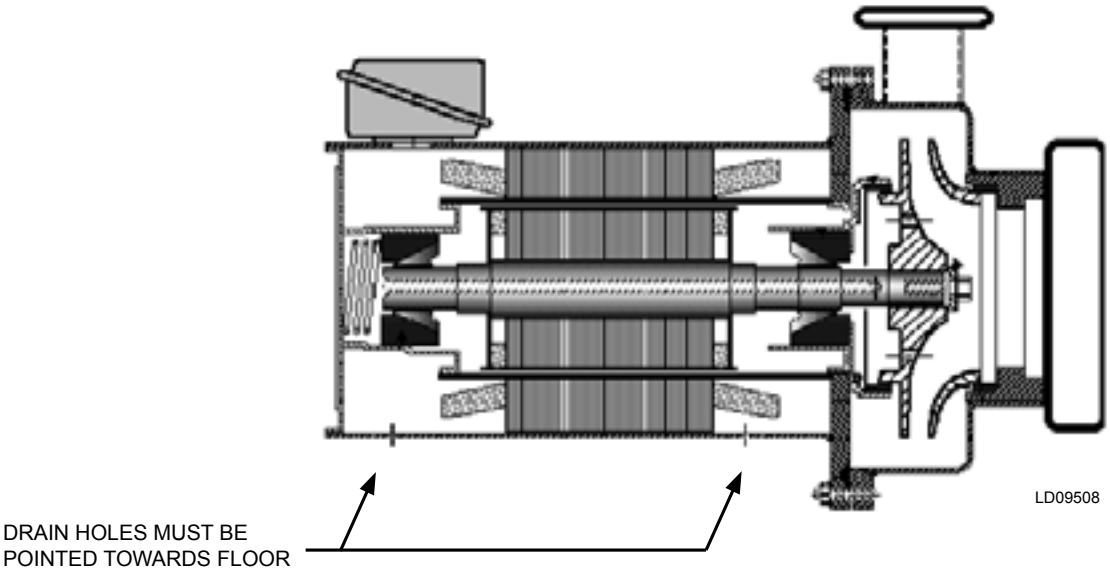


FIG. 6 – View of Pump Cross Section

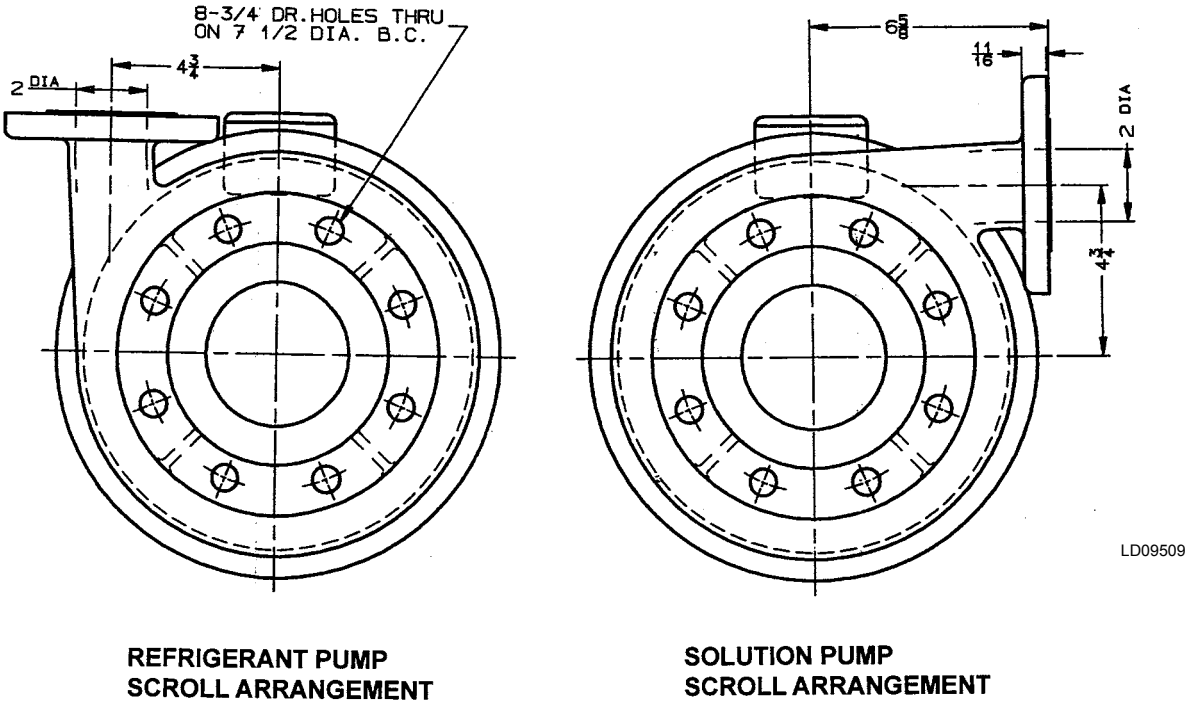
Table 9 – New Style Pump/Motor Repair Kit Contents

Pump Repair Kits		Motor Bearing Repair Kits		New Motor with Pump Repair Kit		Casing Gasket	
Contents (see FIG. 4 - item numbers)							
Item	Description	Item	Description	Item	Description	Item	Description
9	Casing wear ring	9	Casing wear ring	9	Casing wear ring	65	Casing gasket
10	Motor side wear ring	10	Motor side wear ring	10	Motor side wear ring		
15A	Impeller locking screw	15A	Impeller locking screw	15A	Impeller locking screw		
16	Impeller locking washer	16	Impeller lock washer	16	Impeller lock washer		
17	Impeller key	17	Impeller key	17	Impeller key		
65	Casing gasket	65	Casing gasket	65	Casing gasket		
		210A	Bearing front end	201	Multi-voltage motor *		
		210	Bearing back end				

* Includes Items 210 & 210A

Table 10 – Pump/Motor Repair Kit Part Numbers

Pump Type	Pump Repair Kit	Motor Bearing Repair Kit	New Motor with Pump Repair Kit	Casing Gasket
A	026 37924 000	026 37925 000	024 30999 000	028 15062 000
B	026 41635 000	026 41634 000	024 34953 000	028 15289 000
C	026 41637 000	026 41636 000	024 34954 000	028 15290 000



REFRIGERANT PUMP SCROLL ARRANGEMENT

SOLUTION PUMP SCROLL ARRANGEMENT

FIG. 7 – Pump Style "A" Dimensions

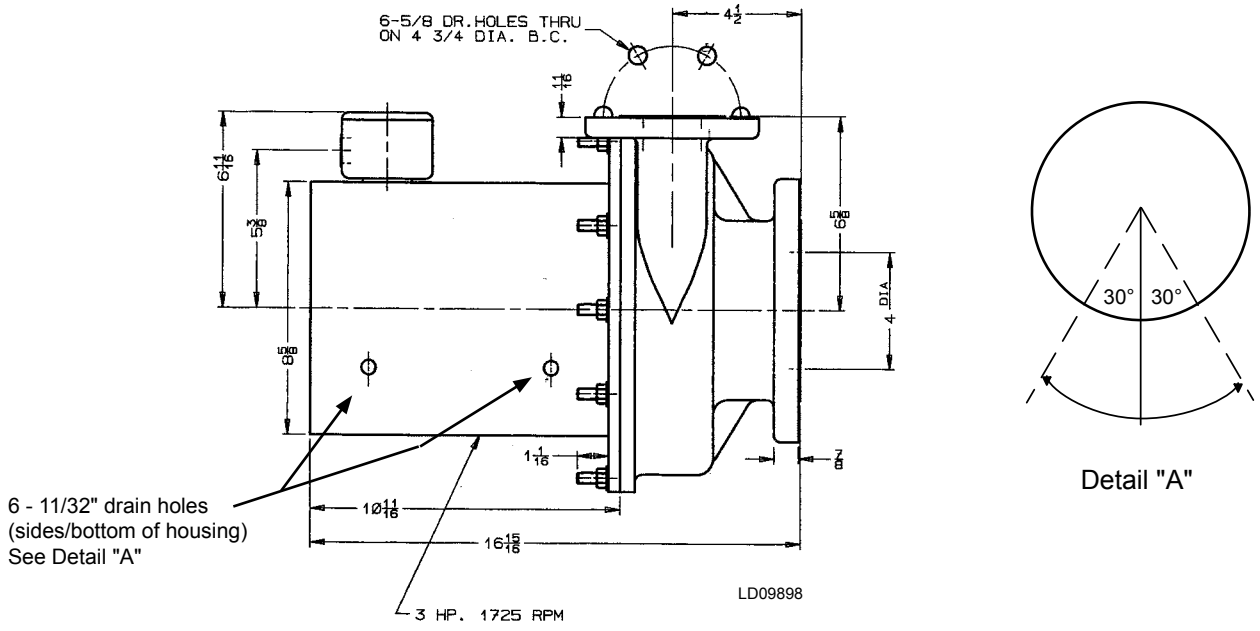
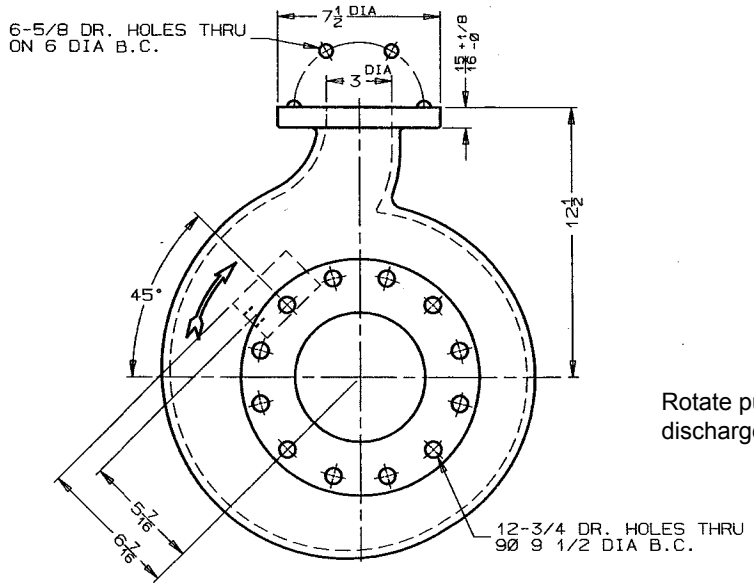


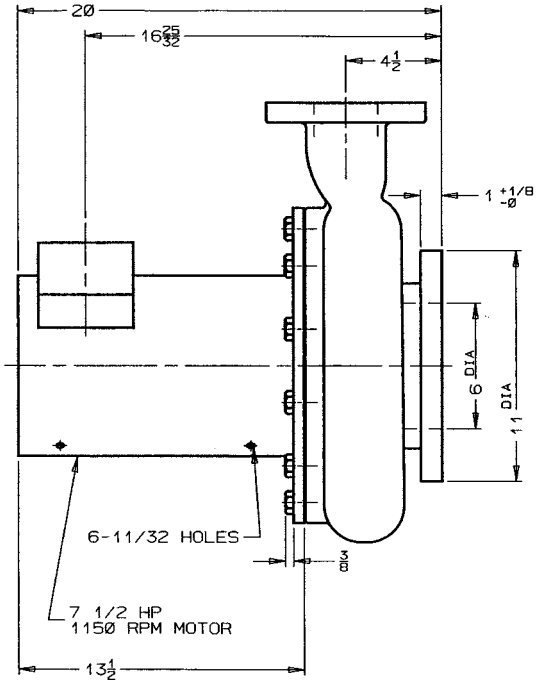
FIG. 7– Pump Style "A" Dimensions Motor End



Rotate pump as needed to align discharge flange to unit flange.

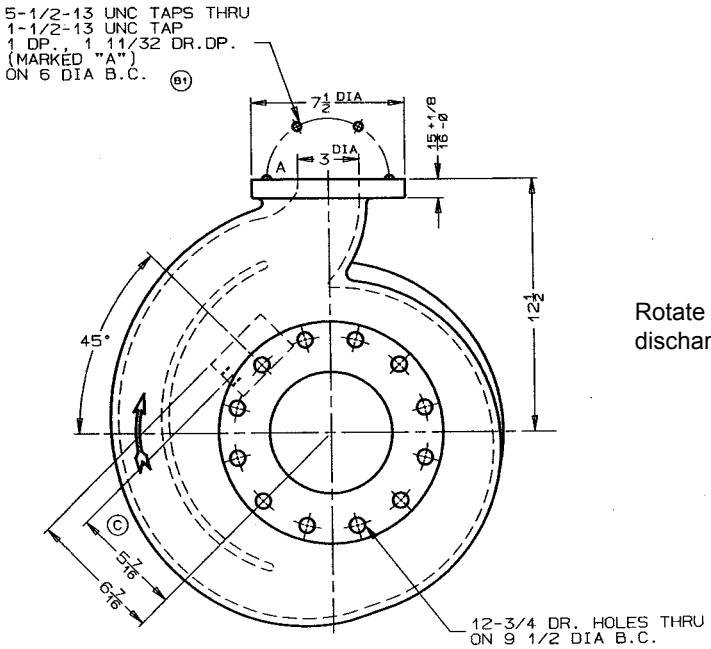
LD09510

FIG. 8 – Pump Style "B" Dimensions



LD09897

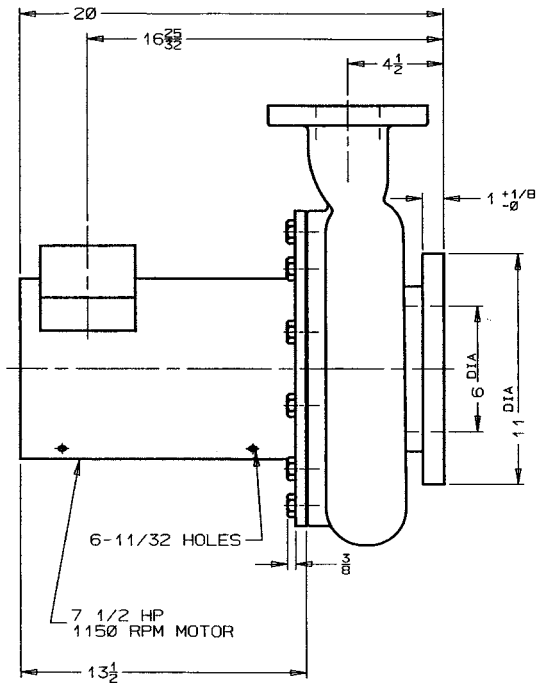
FIG. 9 – Pump Style "B" Dimensions Motor End



Rotate pump as needed to align discharge flange to unit flange.

LD09511

FIG. 10 – Pump Style "C" Dimensions



LD09897

FIG. 11 – Pump Style "C" Dimensions Motor End

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