



**Millennium™**  
**AIR-COOLED SCREW LIQUID CHILLERS**  
**AIR COOLED SCREW HERMETIC**

**RENEWAL PARTS**

Supersedes: 201.10-RP2 (896)

Form 201.10-RP2 (497)

**50 HERTZ**  
**YEAS135, YEAS145, YEAS155,**  
**YEAS165, YEAS185, YEAS195,**  
**YEAS197, YEAS204, YEAS215**

**STYLE D**



27960A

# WARNING

**HIGH VOLTAGE**  
**is used in the operation of this equipment**  
**DEATH OR SERIOUS INJURY**  
**may result if personnel fail to observe precautions.**

Work on electronic equipment should not be undertaken unless the individual(s) has (have) been trained in the proper maintenance of the equipment and is (are) familiar with its potential hazards.

Shut off power supply to equipment before beginning work and follow lockout procedures. When working inside equipment with power off, take special care to discharge every capacitor likely to hold dangerous potential.

Be careful not to contact high voltage connections when installing or operating this equipment.

## LOW VOLTAGE

**DO NOT** be misled by the term "low voltage". Voltages as low as 50 volts may cause death.

(Engineering Data - Stamped on Unit Nameplate)

**4 M 2 A 3 H L 6 A**

2 Compressor "W" Chiller Configuration  
 (4 Fans & 8 Coils per Module – 32"x 83")

- 1 = 50Hz, Economized, 1 Module
- 2 = 60Hz, Economized, 1 Module
- 3 = 50Hz, Economized, 1.5 Modules
- 4 = 60Hz, Economized, 1.5 Modules
- 5 = 50Hz, Economized, 2 Modules
- 6 = 60Hz, Economized, 2 Modules
- 7 = 50Hz, Economized, 2.5 Modules
- 8 = 60Hz, Economized, 2.5 Modules

Gear in System #1 Compressor  
 (A, F, H, M, P, or S)

Motor in System #1 Compressor  
 (See Motor List Below)

Gear in System #2 Compressor  
 (A, F, H, P, or S)

Refrigerant Code  
 (A = R-22, B = R-134a)

Condenser Fan Code  
 6 = 60 Hz, 6 Pole Motor  
 7 = 50 Hz, 6 Pole Motor  
 A = 60 Hz, 8 Pole Motor  
 B = 50 Hz, 8 Pole Motor

Condenser Code  
 L = 3 Row Coils in Both Systems  
 M = 4 Row Coils in System #1  
       3 Row Coils in System #2  
 N = 4 Row Coils in Both Systems

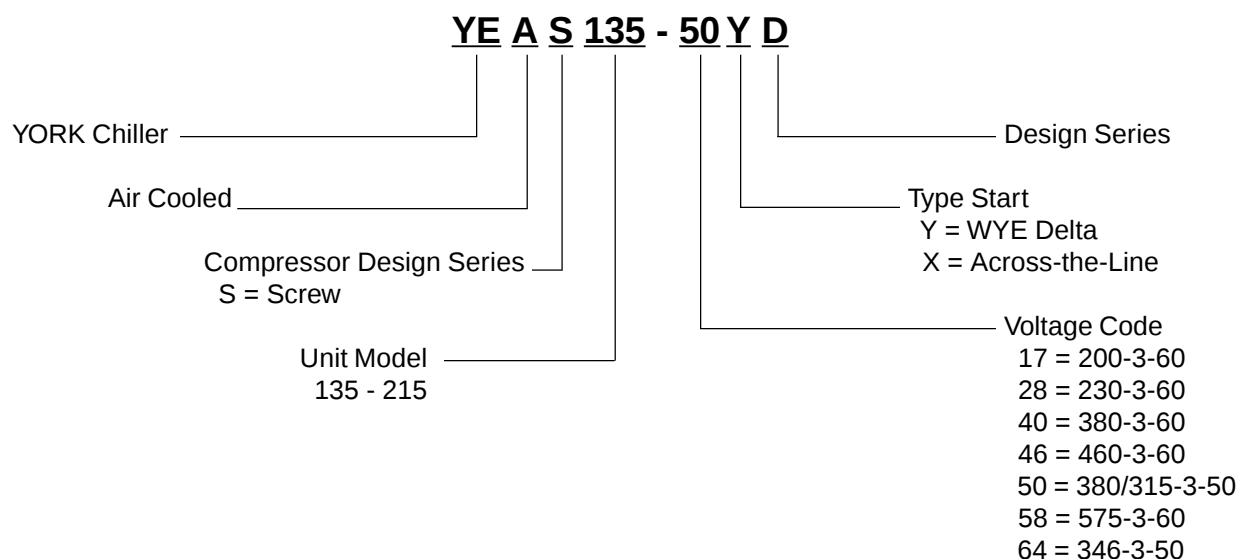
Cooler Code  
 H = 16" Cooler  
 K = 18" Cooler  
 N = 20" Cooler

Motor in System #2 Compressor  
 (See Motor List Below)

| MOTORS (60 Hz)           | MAX kW |       | MOTORS (60 Hz)                 | MAX kW |       |
|--------------------------|--------|-------|--------------------------------|--------|-------|
|                          | 60 Hz  | 50 Hz |                                | 60 Hz  | 50 Hz |
| 0 = 101 Frame, 7" Long   | N/A    | 61    | 5 = 101 Frame, 10.75" Long     | 150    | 127   |
| 1 = 101 Frame, 8" Long   | 85     | 72    | 6 = 124 Frame, 9.5" Long (G)   | 184    | 145   |
| 2 = 101 Frame, 9" Long   | 105    | 90    | 7 = 124 Frame, 9.5" Long (K)   | 219    | 178   |
| 3 = 101 Frame, 9.5" Long | N/A    | 98    | 8 = 124 Frame, 10.75" Long (P) | 263    | N/A   |
| 4 = 101 Frame, 10" Long  | 126    | N/A   | 9 = 124 Frame, 10.75" Long (M) | N/A    | 213   |

## UNIT NOMENCLATURE

The model number denotes the following characteristics of the unit:



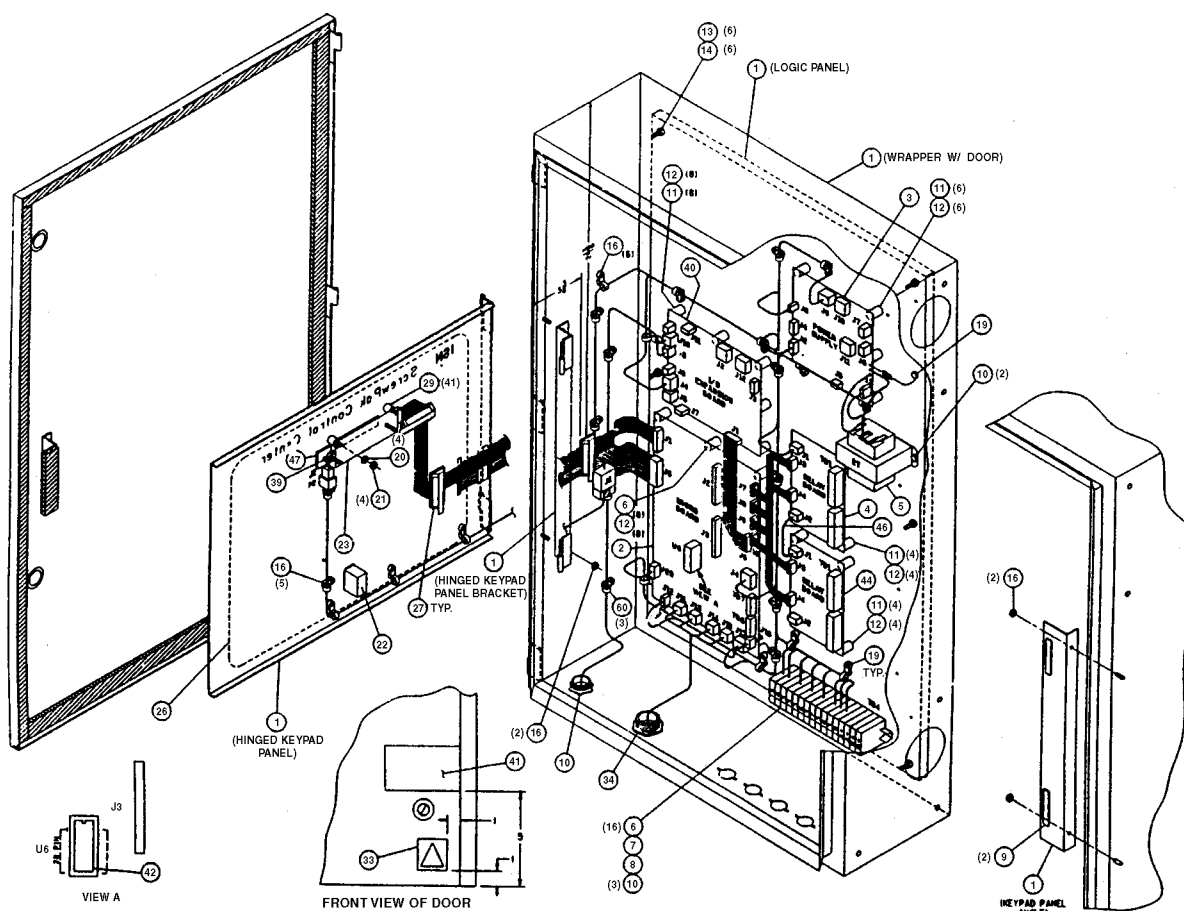
## COMPRESSOR PART NUMBERS

(Model XHS120 Semi-Hermetic Twin-Screw Compressor)

| UNIT    | SYSTEM | VOLTAGE CODE  |                  |
|---------|--------|---------------|------------------|
|         |        | 50            | 64               |
| YEAS135 | 1      | 015-02821-005 | NOT<br>AVAILABLE |
|         | 2      | 015-02821-005 |                  |
| YEAS145 | 1      | 015-02813-005 |                  |
|         | 2      | 015-02821-005 |                  |
| YEAS155 | 1      | 015-02818-005 |                  |
|         | 2      | 015-02813-005 |                  |
| YEAS165 | 1      | 015-02818-005 |                  |
|         | 2      | 015-02818-005 |                  |
| YEAS185 | 1      | 015-02815-005 |                  |
|         | 2      | 015-02815-005 |                  |
| YEAS195 | 1      | 015-02808-005 |                  |
|         | 2      | 015-02814-005 |                  |
| YEAS197 | 1      | 015-02809-005 |                  |
|         | 2      | 015-02815-005 |                  |
| YEAS204 | 1      | 015-02809-005 |                  |
|         | 2      | 015-12809-005 |                  |
| YEAS215 | 1      | 015-02807-005 |                  |
|         | 2      | 015-02807-005 |                  |

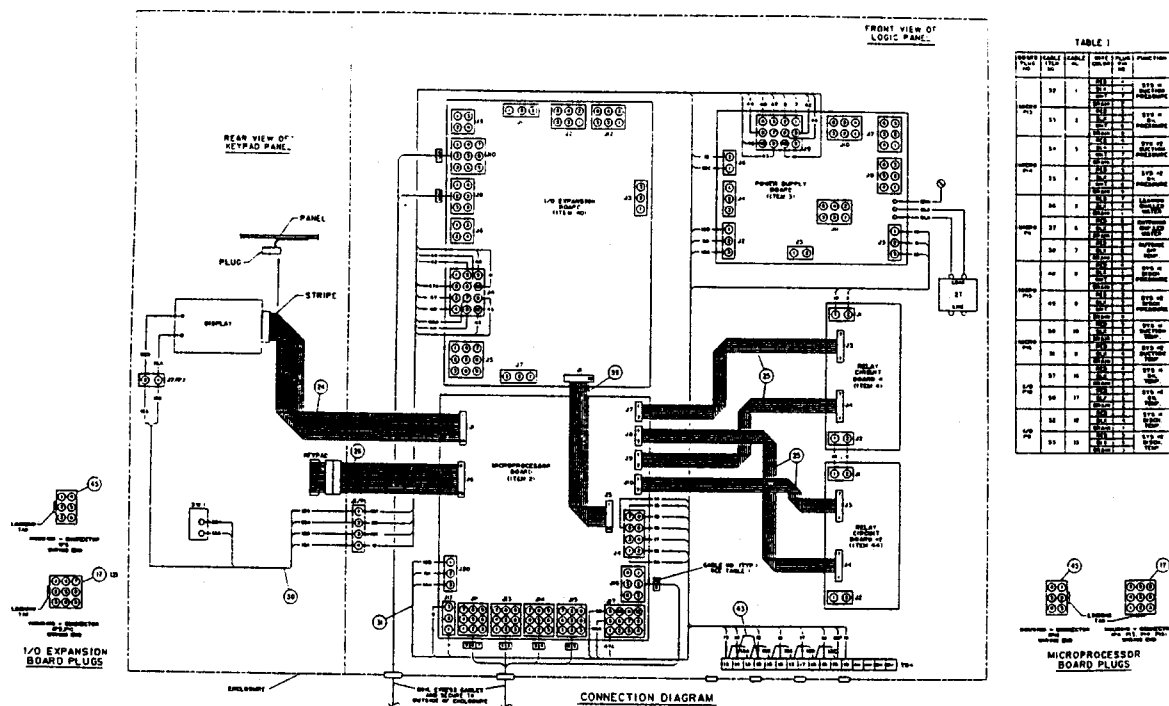
## CONTROL PANEL (See Figs. 1 and 2)

| ITEM            | QTY/UNIT | DESCRIPTION                       | PART NO.      | NOTES                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------|----------|-----------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1               | 1        | Electronic Panel Enclosure Kit    | 371-01307-301 | <ol style="list-style-type: none"> <li>Not Shown. Sensor Harness without Sensor.</li> <li>Not Shown. Shipped Loose for Field use to place across the coil of any relay or contactor connected to the Control Panel or its 115VAC Power Supply, including the application of: <ul style="list-style-type: none"> <li>Alarm Circuit Relays</li> <li>Pump Starter (Contactor or Pilot Relay)</li> <li>Flow Switch Inputs</li> <li>BAS Inputs</li> </ul> </li> </ol> |
| <sup>s</sup> 2  | 1        | Control, Micro Board              | 031-01095-002 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <sup>s</sup> 3  | 1        | Control, Power Supply             | 031-01348-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <sup>s</sup> 4  | 1        | Control, Relay Board              | 031-01093-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 5               | 1        | Transformer, Control (2T)         | 025-27911-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 6               | 16       | Block, Terminal                   | 025-20945-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7               | 1        | End, Terminal Block               | 025-20946-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 8               | 1        | Strip, Marker                     | 025-30443-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 9               | 2        | Catch, Magnetic                   | 029-20878-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 10              | 5        | Scr., Tap TH. #8 x 3/8 Lg         | 021-13783-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 11              | 30       | Nut, Expansion                    | 021-14661-000 | <sup>s</sup> Recommended Stock Spare Part                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 12              | 30       | Scr., Tap Pan Hd. #8 x 1-1/4      | 021-14667-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 13              | 6        | Lock Washer, TH. Int. 3/8         | 021-01155-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 14              | 6        | Nut, Hex 3/8-16 UNC-2B            | 021-00467-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 16              | 15       | Nut/Washer Assembly (KEPS)        | 021-18024-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 17              | 6        | Hsg., Connr. Plug, Mini-Univ.     | 025-28383-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 18              | 1        | Connr., Cable, Str. 3/4           | 025-09389-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 19              | 17       | Scr., Tap, Pan Hd. #10 x 1/2      | 021-13789-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 20              | 4        | Lock Washer, Hel. Spg. #4         | 021-17576-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 21              | 4        | Nut, Hex #4-40                    | 021-10056-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 22              | 1        | Switch, Unit ON/OFF               | 024-25517-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 23              | 1        | Display                           | 031-01110-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 24              | 1        | Ribbon Cable                      | 031-01109-211 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 25              | 4        | Ribbon Cable                      | 031-01109-212 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 26              | 1        | Ribbon Cable                      | 031-01109-213 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 27              | 3        | Clamp, Ribbon Wire                | 025-25156-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 28              | 1        | Switch, Keypad                    | 024-26143-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 29              | 4        | Spacer, Nylon 7/16 Lg.            | 021-17575-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 30              | 1        | Harness, Hinged Panel Wiring      | 571-01226-211 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 31              | 1        | Harness, Main Panel Wiring        | 571-01307-201 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 32              | 1        | Harness, Sensor - Suct. Pres. #1  | 371-01733-231 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 33              | 1        | Harness, Sensor - Oil Pres. #1    | 371-01733-233 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 34              | 1        | Harness, Sensor - Suct. Pres. #2  | 371-01733-232 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 35              | 1        | Harness, Sensor - Oil Pres. #2    | 371-01733-234 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 36              | 1        | Harness, Sensor - LWT             | 371-01733-246 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 37              | 1        | Harness, Sensor - EWT             | 371-01733-247 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 38              | 1        | Harness, Sensor - OAT             | 371-01733-248 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 39              | 2        | Strap, Cable                      | 025-18167-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <sup>s</sup> 40 | 1        | Control, I/O Expansion Board      | 031-01344-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 41              | 1        | Label, Caution                    | 035-03908-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <sup>s</sup> 42 | 1        | EPROM                             | 031-01714-001 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 43              | 1        | Harness, Hinged Panel Wiring      | 571-01226-212 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 44              | 1        | Control Relay, SS Output Board    | 031-01369-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 45              | 2        | Housing, Connector Plug           | 025-28382-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 46              | 1        | Jumper, Control Relay Board       | 571-01307-211 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 47              | 1        | Mount, Cable Strap                | 025-25155-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 48              | 1        | Harness, Sensor - Disch. Pres. #1 | 371-01733-235 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 49              | 1        | Harness, Sensor - Disch. Pres. #2 | 371-01733-236 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 50              | 1        | Harness, Sensor - Suct. Temp. #1  | 371-01733-241 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 51              | 1        | Harness, Sensor - Suct. Temp. #2  | 371-01733-242 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 52              | 1        | Harness, Sensor - Disch. Temp. #1 | 371-01733-243 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 53              | 1        | Harness, Sensor - Disch. Temp. #2 | 371-01733-244 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 54              | 1        | Connector, Cable                  | 025-12282-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 55              | 1        | Label, Caution                    | 035-11929-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 57              | 1        | Harness, Sensor - Oil Temp. #1    | 371-01733-221 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 58              | 1        | Harness, Sensor - Oil Temp. #2    | 371-01733-222 | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 59              | 1        | Cable, Ribbon                     | 031-01109-214 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 60              | 3        | Cable Strap                       | 025-11098-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 61              | 3        | Suppressor for Options            | 031-00808-000 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



**FIG. 1 – CONTROL PANEL, BOX**

LD00249(R)



**FIG. 2 – CONTROL PANEL, CONNECTION DIAGRAM**

## POWER PANEL CONTROL COMPONENTS (See Fig. 3)

| ITEM NO         | QUANT. PER UNIT | TYPE START | SYS    | LEGEND NUMBER         | DESCRIPTION                                               |                                                | VOLT. CODE                                      | PART NO. ALL MODELS |
|-----------------|-----------------|------------|--------|-----------------------|-----------------------------------------------------------|------------------------------------------------|-------------------------------------------------|---------------------|
| <sup>s</sup> 1  | 1               | Wye-Delta  | 1      | 2M/1S                 | CONTACTORS                                                | Contactor, Compressor<br>(Includes Suppressor) | See Pages 9, 10                                 |                     |
| <sup>s</sup> 2  | 1               | Wye-Delta  | 1      | 1M                    |                                                           |                                                |                                                 |                     |
| <sup>s</sup> 3  | 1               | Wye-Delta  | 2      | 2S/4M                 |                                                           |                                                |                                                 |                     |
| <sup>s</sup> 4  | 1               | Wye-Delta  | 2      | 3M                    |                                                           |                                                |                                                 |                     |
| <sup>s</sup> 5  | 12              | COMMON     | 1<br>2 | 5M - 10M<br>11M - 16M |                                                           | Contactor, Fan<br>(Includes Suppressor)        | -50                                             | 024-25521-000       |
| <sup>s</sup> 6  | 1               | Wye-Delta  | 1      | 1 OL                  | OVERLOADS                                                 | Overload, Compressor                           | See Pages 9, 10                                 |                     |
| <sup>s</sup> 7  | 1               | Wye-Delta  | 2      | 2 OL                  |                                                           | Overload, Fan                                  |                                                 |                     |
| <sup>s</sup> 8  | 4               | COMMON     | 1      | 5OL - 8OL             |                                                           | FUSES                                          | Electronic Power Supply Circuit<br>(5 amp), 2FU | ALL                 |
| <sup>s</sup> 9  | 4               |            | 2      | 11OL - 14OL           | Control Circuit<br>(20 amp), 1FU                          |                                                | ALL                                             | 025-28967-000       |
| <sup>s</sup> 10 | 1               |            | —      | TRANSFORMERS          | Transformer, Current<br>(1CT, 2CT, 3CT, 4CT, 5CT, 6CT)    |                                                | ALL                                             | 025-27408-000       |
| <sup>s</sup> 11 | 1               |            | —      |                       | Transformer, Current<br>(7CT, 8CT, 9CT, 10CT, 11CT, 12CT) |                                                | ALL                                             | 025-21173-002       |
| 12              | 6               |            | 1, 2   |                       | INTERLOCK                                                 | Fan Contactor Interlock, Mechanical            | ALL                                             | 024-27208-000       |
| 13              | 6               |            | 1, 2   |                       | RELAYS                                                    | Relay, Fan Control<br>(1CR, 2CR, 3CR, 4CR)     | ALL                                             | 024-25598-000       |
| 14              | 4               |            | 1, 2   |                       |                                                           | Relay, Fan Control Timer<br>(1TR, 2TR)         | ALL                                             | 024-25597-000       |
| 15              | 4               |            | 1, 2   |                       | RESISTOR PROGRAM                                          | Resistor Program                               | See Table Below                                 |                     |
| 16              | 2               |            | 1, 2   |                       |                                                           |                                                |                                                 |                     |
| 17 <sup>1</sup> | 1               |            | 1      |                       |                                                           |                                                |                                                 |                     |
| 18 <sup>1</sup> | 1               | 2          |        |                       |                                                           |                                                |                                                 |                     |

### NOTES:

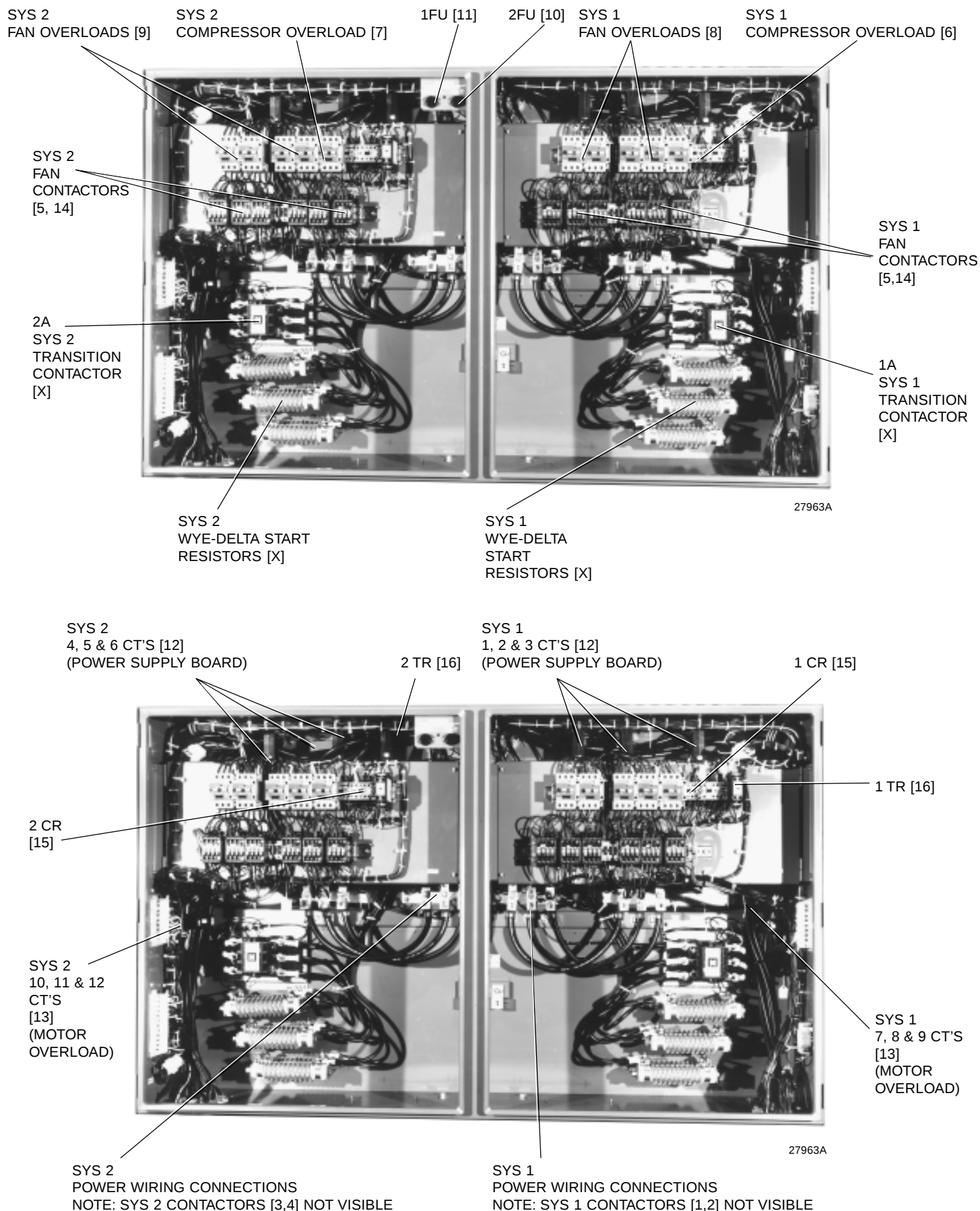
<sup>s</sup> = Recommended Stock Spare Parts

<sup>1</sup> = Not Shown. Shipped Loose for Field Installation.

Contactors include suppressors.

## RESISTOR PROGRAMS

| ITEM NO.   | COMPONENT | TYPE START | VOLT CODE | SYST | UNIT MODEL    |               |               |
|------------|-----------|------------|-----------|------|---------------|---------------|---------------|
|            |           |            |           |      | YEAS135       | YEAS145       | YEAS155       |
| 17         | Resistor  | Wye-Delta  | -50       | 1    | 031-01459-109 | 031-01459-110 | 031-01459-110 |
| 18         | Program   |            |           | 2    | 031-01459-109 | 031-01459-109 | 031-01459-110 |
| UNIT MODEL |           |            |           |      |               |               |               |
|            |           |            |           |      | YEAS165       | YEAS185       | YEAS195       |
| 17         | Resistor  | Wye-Delta  | -50       | 1    | 031-01459-110 | 031-01459-112 | 031-01459-112 |
| 18         | Program   |            |           | 2    | 031-01459-110 | 031-01459-112 | 031-01459-110 |
| UNIT MODEL |           |            |           |      |               |               |               |
|            |           |            |           |      | YEAS197       | YEAS204       | YEAS215       |
| 17         | Resistor  | Wye-Delta  | -50       | 1    | 031-01459-044 | 031-01459-044 | 031-01459-044 |
| 18         | Program   |            |           | 2    | 031-01459-112 | 031-01459-044 | 031-01459-044 |



**NOTE:** [X] = Not Used in 50 Hz Power Panels

**FIG. 3 – WYE-DELTA START POWER PANEL**

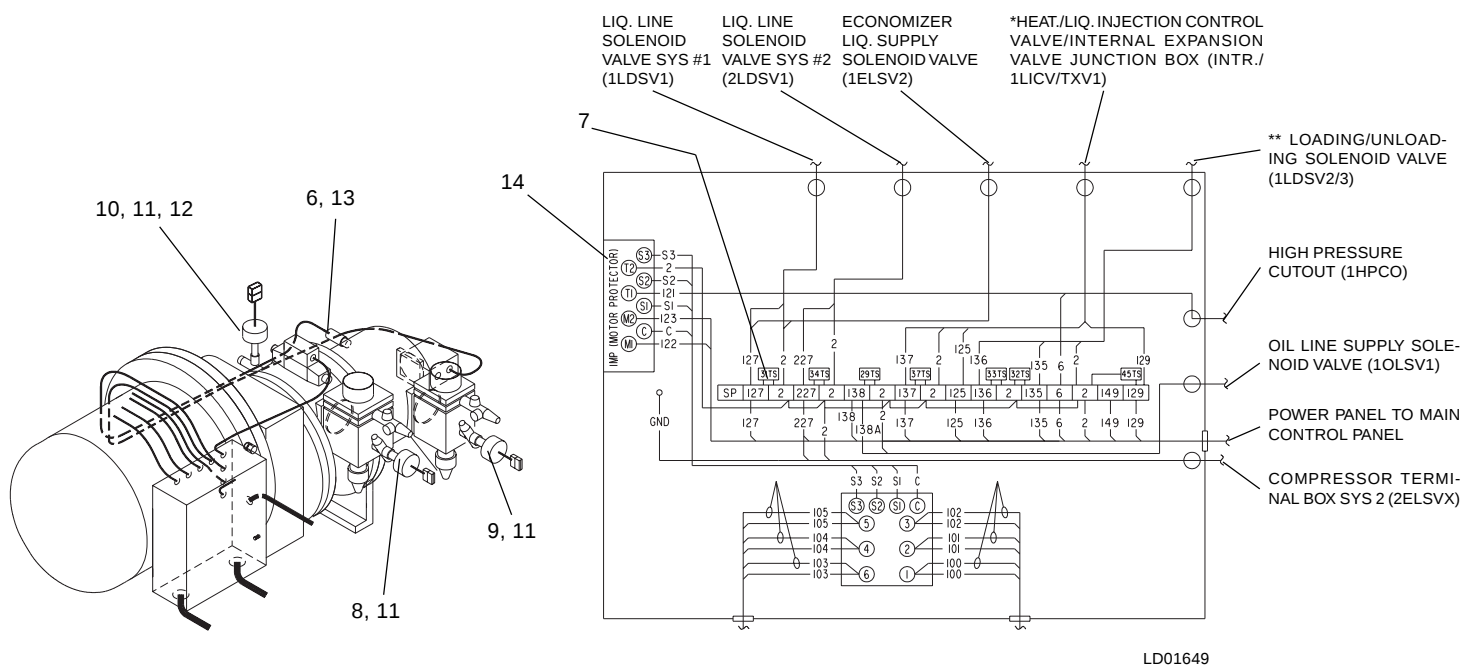


FIG. 4 – COMPRESSOR AND COMPRESSOR TERMINAL BOX WIRING DIAGRAM – Typical

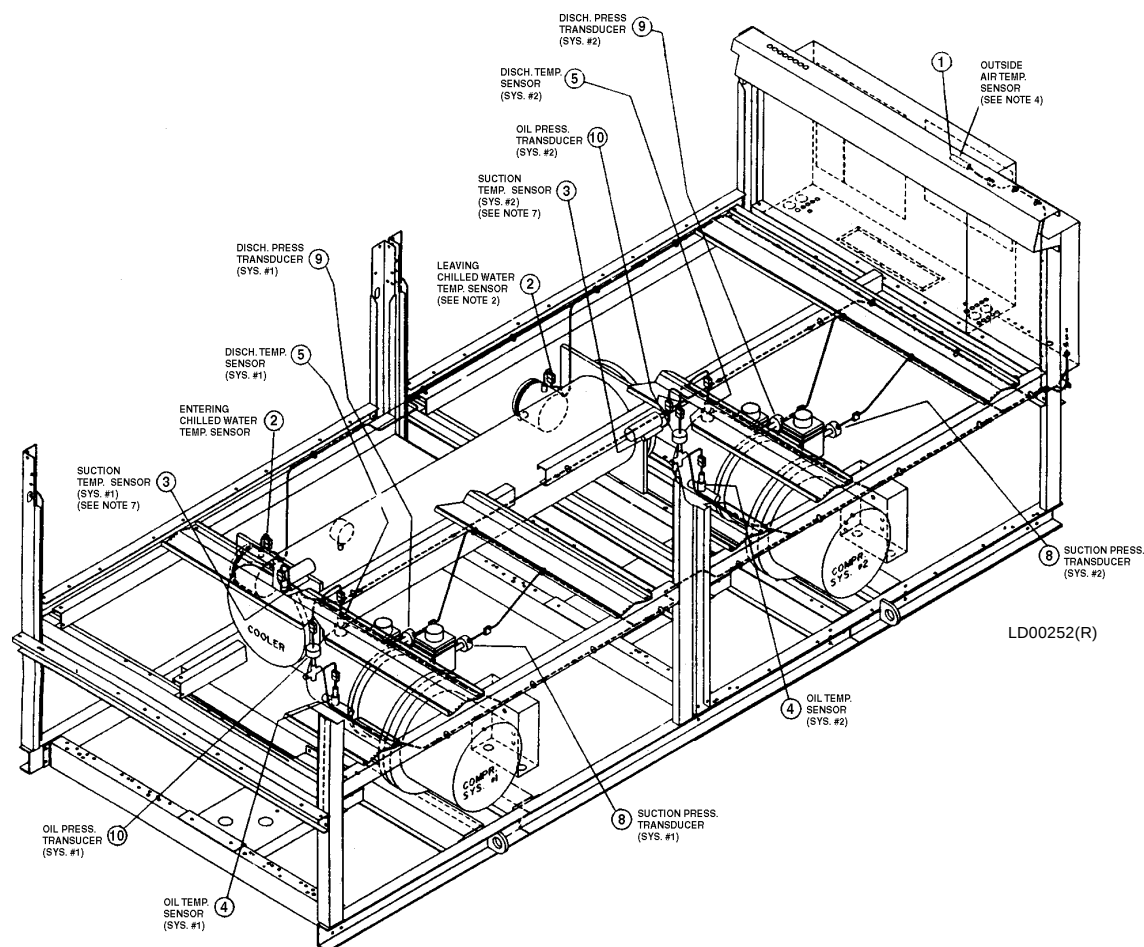


FIG. 5 – SYSTEM CONTROLS

**SYSTEM CONTROL COMPONENTS (See Figs. 4 and 5)**

| ITEM NO.        | QUANTITY PER UNIT | SYSTEM | DESCRIPTION |                                                                                                                                                                                                   | VOLTAGE CODE | PART NUMBER ALL MODELS |
|-----------------|-------------------|--------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------|
| <sup>s</sup> 1  | 1                 | —      | SENSORS     | Sensor, Outside Air (OAT)                                                                                                                                                                         | ALL          | 025-28663-001          |
| <sup>s</sup> 2  | 2                 | —      |             | Sensor, Water Temperature (LWT,RWT)                                                                                                                                                               | ALL          | 025-29964-000          |
| <sup>s</sup> 3  | 2                 | 1, 2   |             | Sensor, Suction Temperature                                                                                                                                                                       | ALL          | 025-28935-000          |
| <sup>s</sup> 4  | 2                 | 1, 2   |             | Sensor, Oil Temperature                                                                                                                                                                           | ALL          | 025-30440-000          |
| <sup>s</sup> 5  | 2                 | 1, 2   |             | Sensor, Discharge Temperature                                                                                                                                                                     | ALL          | 025-30480-000          |
| <sup>s</sup> 6  | 2                 | 1, 2   | SWITCH      | Switch, High Pressure Cutout                                                                                                                                                                      | ALL          |                        |
| <sup>s</sup> 7  | 7<br>6            | 1<br>2 | SUPPRESSOR  | Suppressors for Compressor Unloading Solenoids, Liquid Line Solenoids, Economizer Liquid Supply Solenoid, Liquid Injection Control Solenoid, Oil Supply Line Solenoid, Thermal Expansion Solenoid | ALL          | 031-01117-000          |
| <sup>s</sup> 8  | 2                 | 1, 2   | TRANSDUCERS | Transducer, Suction Pressure                                                                                                                                                                      | ALL          | 025-29583-000          |
| <sup>s</sup> 9  | 2                 | 1, 2   |             | Transducer, Discharge Pressure                                                                                                                                                                    | ALL          | 025-29139-001          |
| <sup>s</sup> 10 | 2                 | 1, 2   |             | Transducer, Oil Pressure                                                                                                                                                                          | ALL          |                        |
| 11              | 6                 | 1, 2   | VALVE       | Valve, Transducer (Use with Items 8, 9 & 10)                                                                                                                                                      | ALL          | 022-09549-000          |
| 12              | 2                 | 1, 2   | ADAPTORS    | Adaptor, Mounting (Use with Item 10)                                                                                                                                                              | ALL          | 023-18092-000          |
| 13              | 2                 | 1, 2   |             | Adaptor, Mounting (Use with Item 6)                                                                                                                                                               | ALL          | 023-18087-000          |
| 14              | 2                 | 1, 2   | PROTECTOR   | Module, Motor Protector                                                                                                                                                                           | ALL          | 024-27238-000          |
| 15              | 1                 | —      | COMPOUND    | Heat Conductive Compound (Use with Item 2)                                                                                                                                                        | ALL          | 013-00898-000          |

<sup>s</sup> Recommended Stock Spare Parts**<sup>s</sup>COMPRESSOR MOTOR CONTACTORS AND OVERLOADS**

| UNIT MODEL | SYSTEM | CONTACTOR / OVERLOAD |       | TYPE START | VOLTAGE CODE  |
|------------|--------|----------------------|-------|------------|---------------|
|            |        | DESCRIPTION          | ITEM  |            | -50           |
| YEAS135    | 1      | CONTACTOR            | 2M/1S | Y          | 024-26993-000 |
|            |        |                      | 1M    | Y          | 024-26990-000 |
|            |        | OVERLOAD             | 1 OL  | Y          | 024-27274-000 |
|            | 2      | CONTACTOR            | 2S/4M | Y          | 024-26986-000 |
|            |        |                      | 3M    | Y          | 024-26990-000 |
|            |        | OVERLOAD             | 2 OL  | Y          | 024-27274-000 |
| YEAS145    | 1      | CONTACTOR            | 2M/1S | Y          | 024-26994-000 |
|            |        |                      | 1M    | Y          | 024-26991-000 |
|            |        | OVERLOAD             | 1 OL  | Y          | 024-27275-000 |
|            | 2      | CONTACTOR            | 2S/4M | Y          | 024-26987-000 |
|            |        |                      | 3M    | Y          | 024-26991-000 |
|            |        | OVERLOAD             | 2 OL  | Y          | 024-27275-000 |
| YEAS155    | 1      | CONTACTOR            | 2M/1S | Y          | 024-26994-000 |
|            |        |                      | 1M    | Y          | 024-26991-000 |
|            |        | OVERLOAD             | 1 OL  | Y          | 024-27275-000 |
|            | 2      | CONTACTOR            | 2S/4M | Y          | 024-26987-000 |
|            |        |                      | 3M    | Y          | 024-26991-000 |
|            |        | OVERLOAD             | 2 OL  | Y          | 024-27275-000 |

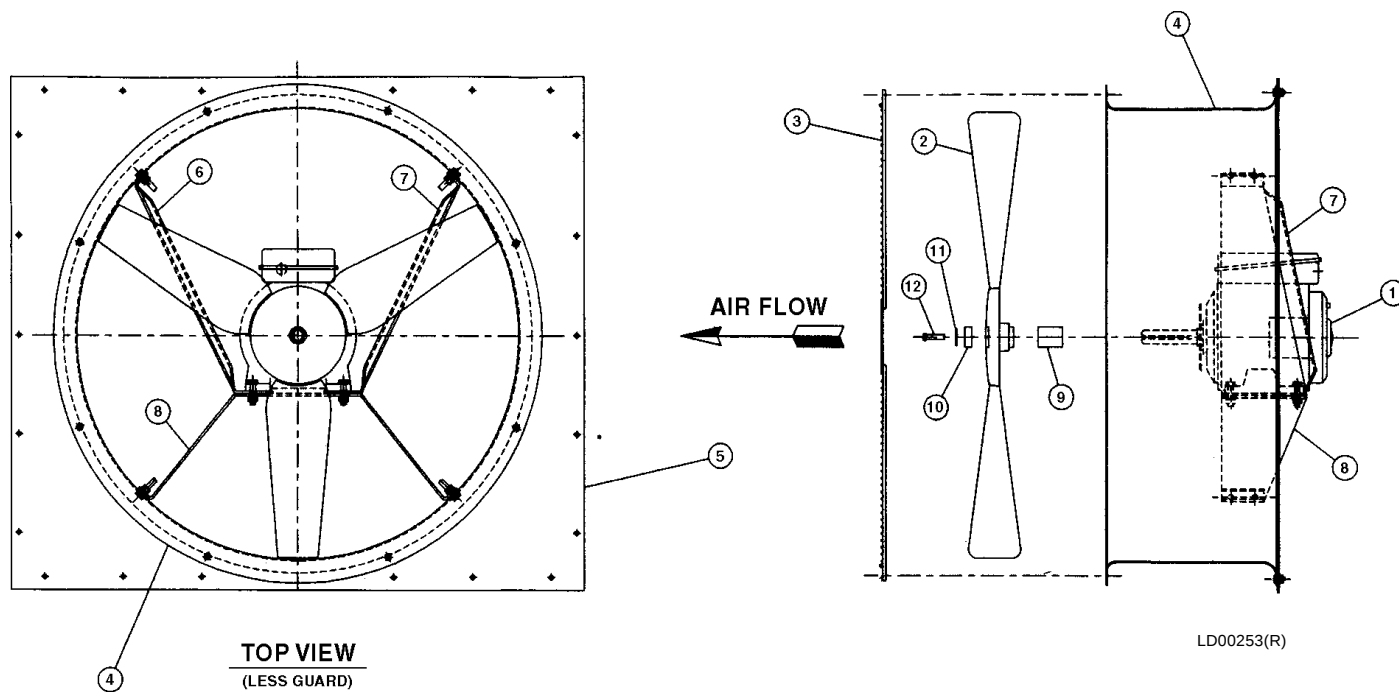
**NOTES:** <sup>s</sup> = Recommended Stock Spare Parts  
 Contactors Include Suppressors

**(TABLE CONTINUED ON PAGE 10)**

<sup>S</sup>COMPRESSOR MOTOR CONTACTORS AND OVERLOADS (Cont'd)

| UNIT<br>MODEL | SYSTEM | CONTACTOR/OVERLOAD |       | TYPE<br>START | VOLTAGE<br>CODE |
|---------------|--------|--------------------|-------|---------------|-----------------|
|               |        | DESCRIPTION        | ITEM  |               | -50             |
| YEAS165       | 1      | CONTACTOR          | 2M/1S | Y             | 024-26995-000   |
|               |        |                    | 1M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 1 OL  | Y             | 024-27275-000   |
|               | 2      | CONTACTOR          | 2S/4M | Y             | 024-26988-000   |
|               |        |                    | 3M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 2 OL  | Y             | 024-27275-000   |
| YEAS185       | 1      | CONTACTOR          | 2M/1S | Y             | 024-26995-000   |
|               |        |                    | 1M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 1 OL  | Y             | 024-27275-000   |
|               | 2      | CONTACTOR          | 2S/4M | Y             | 024-26988-000   |
|               |        |                    | 3M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 2 OL  | Y             | 024-27275-000   |
| YEAS195       | 1      | CONTACTOR          | 2M/1S | Y             | 024-26995-000   |
|               |        |                    | 1M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 1 OL  | Y             | 024-27276-000   |
|               | 2      | CONTACTOR          | 2S/4M | Y             | 024-26988-000   |
|               |        |                    | 3M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 2 OL  | Y             | 024-27275-000   |
| YEAS197       | 1      | CONTACTOR          | 2M/1S | Y             | 024-26995-000   |
|               |        |                    | 1M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 1 OL  | Y             | 024-27276-000   |
|               | 2      | CONTACTOR          | 2S/4M | Y             | 024-26988-000   |
|               |        |                    | 3M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 2 OL  | Y             | 024-27275-000   |
| YEAS204       | 1      | CONTACTOR          | 2M/1S | Y             | 024-26995-000   |
|               |        |                    | 1M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 1 OL  | Y             | 024-27276-000   |
|               | 2      | CONTACTOR          | 2S/4M | Y             | 024-26988-000   |
|               |        |                    | 3M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 2 OL  | Y             | 024-27276-000   |
| YEAS215       | 1      | CONTACTOR          | 2M/1S | Y             | 024-26995-000   |
|               |        |                    | 1M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 1 OL  | Y             | 024-27276-000   |
|               | 2      | CONTACTOR          | 2S/4M | Y             | 024-26988-000   |
|               |        |                    | 3M    | Y             | 024-26992-000   |
|               |        | OVERLOAD           | 2 OL  | Y             | 024-27276-000   |

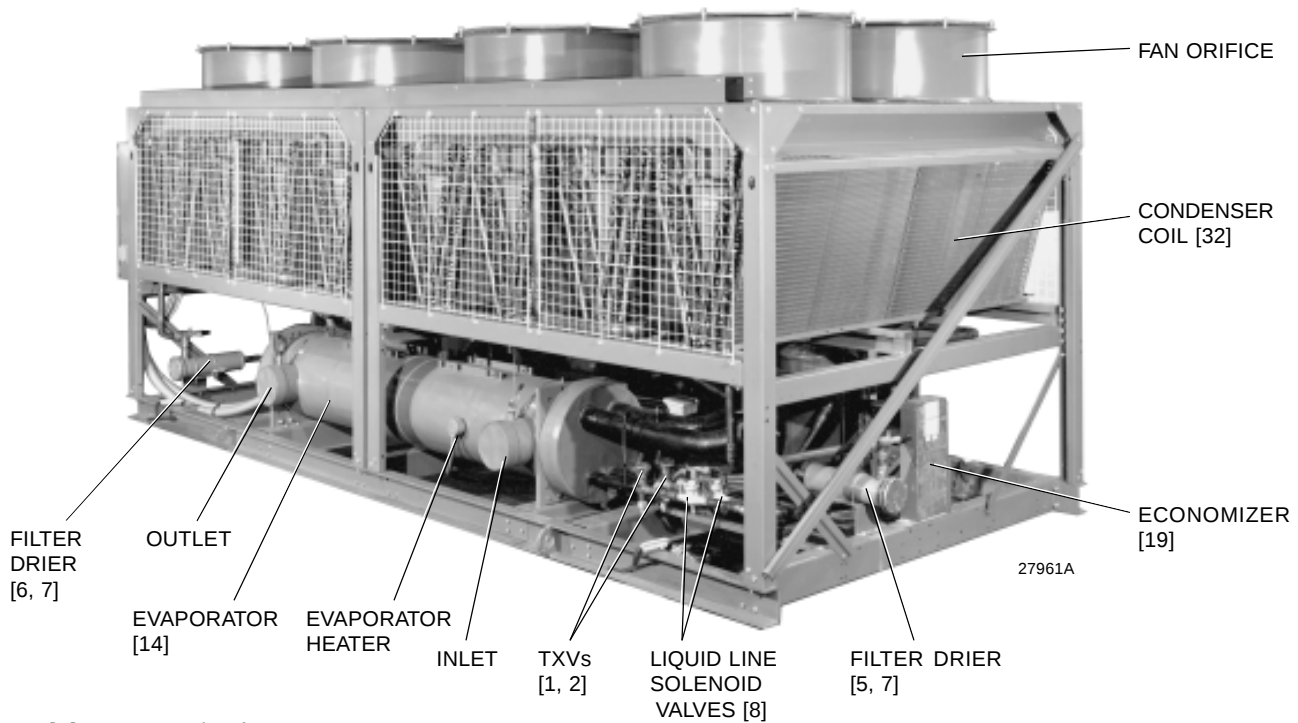
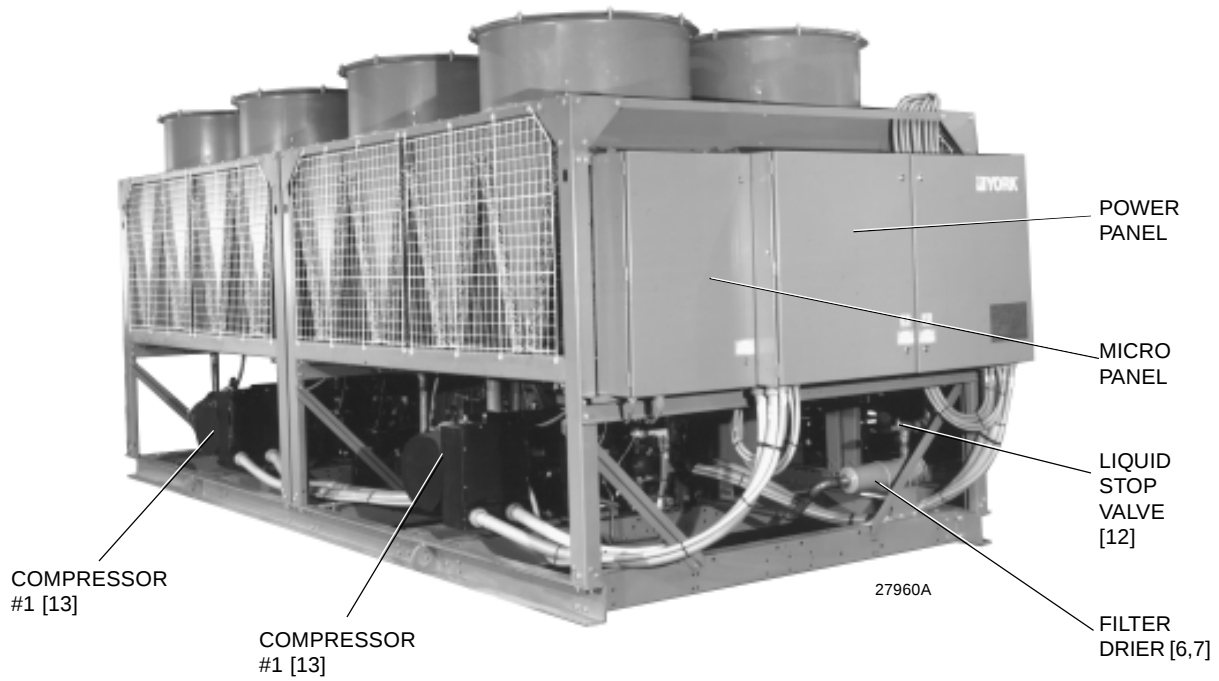
**NOTES:** <sup>S</sup> = Recommended Stock Spare Parts  
Contactors Include Suppressors.

**FIG. 6 – FAN – Typical****FAN COMPONENTS**

| ITEM<br>NUMBER | DESCRIPTION              | VOLTAGE<br>CODE | ALL<br>MODELS |
|----------------|--------------------------|-----------------|---------------|
| <sup>s</sup> 1 | Motor                    | -50             | 026-25179-001 |
| 2              | Blade                    |                 | 026-33611-000 |
| 3              | Guard                    |                 | 326-34431-000 |
| 4              | Orifice                  |                 | 326-34432-000 |
| 5              | Orifice Plate            |                 | 075-19302-000 |
| 6              | Upper Motor Support (RH) |                 | 075-19164-000 |
| 7              | Upper Motor Support (LH) |                 | 075-19166-000 |
| 8              | Lower Motor Support      |                 | 075-19167-000 |
| 9              | Sleeve                   |                 | 026-33612-000 |
| 10             | Sleeve                   |                 | 026-33616-000 |
| 11             | Washer                   |                 | 021-05146-000 |
| 12             | Screw, Cap               |                 | 021-17791-000 |

<sup>s</sup> Recommended Stock Spare Part

## MAJOR UNIT COMPONENTS



NOTE: [N] – Item number from pages 13 or 14

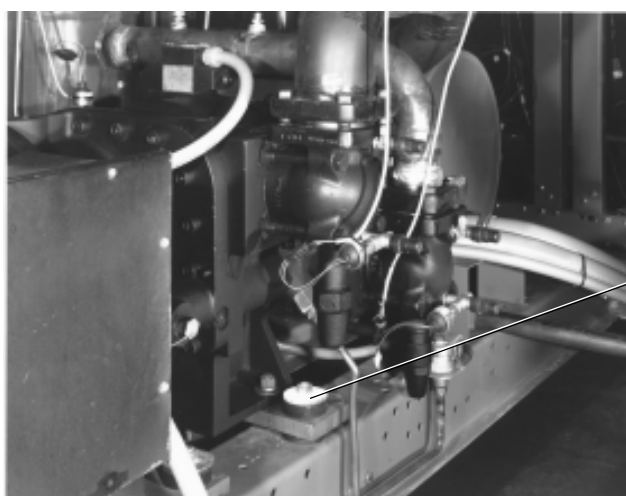
## REFRIGERANT SYSTEM COMPONENTS

| ITEM NO        | QUANT/ UNIT     | DESCRIPTION                              | SYSTEM NUMBER | SEE PAGE NO. | UNIT MODEL             |                        |                        |                        |                        |                        |
|----------------|-----------------|------------------------------------------|---------------|--------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                |                 |                                          |               |              | YEAS135<br>YEAS145     | YEAS155                | YEAS165                | YEAS185                | YEAS195<br>YEAS197     | YEAS204<br>YEAS215     |
| <sup>s</sup> 1 | 1               | Valve, Thermal Expansion                 | 1             | 12, 15, 17   | 025-20069              | 025-20069              | 025-32905              | 025-32905              | 025-32905              | 025-32905              |
| <sup>s</sup> 2 | 1               | Complete - Includes Power Head           | 2             |              | 025-20069              | 025-20069              | 025-32905              | 025-32905              | 025-32905              | 025-32905              |
| 3              | 1               | Power Head, TXV                          | 1             | 12, 15, 17   | 025-32901              | 025-32901              | 025-32902              | 025-32902              | 025-32902              | 025-32902              |
| 4              | 1               |                                          | 2             |              | 025-32901              | 025-32901              | 025-32902              | 025-32902              | 025-32902              | 025-32902              |
| 5              | 1               | Dehydrator, Body                         | 1             | 12, 18       | 026-21055              | 026-16960              | 026-16960              | 026-16960              | 026-16960              | 026-16960              |
| 6              | 1               | (Replaceable Core)                       | 2             |              | 026-21055              | 026-21055              | 026-16960              | 026-16960              | 026-16960              | 026-16960              |
| <sup>s</sup> 7 | Varies<br>Quan. | Dehydrator Core<br>(Use with Items 5, 6) | 1, 2          | 12, 18       | 026-18328<br>4         | 026-18328<br>5         | 026-18328<br>6         | 026-18328<br>6         | 026-18328<br>6         | 026-18328<br>6         |
| 8              | 2               | Valve, Liquid Solenoid                   | 1<br>2        | 12, 15, 17   | 025-28376<br>025-28376 | 025-28376<br>025-28376 | 025-28376<br>025-28376 | 025-28375<br>025-28375 | 025-28375<br>025-28375 | 025-28375<br>025-28375 |
| 9              | 1               | Moisture Indicator, Body                 | 1             | 17           | 026-32398              | 026-32398              | 026-32398              | 026-32398              | 026-32398              | 026-32398              |
| 10             | 1               |                                          | 2             |              | 026-32398              | 026-32398              | 026-32398              | 026-32398              | 026-32398              | 026-32398              |
| 11             | 2               | Moisture Indicator, Cap Assembly         | 1, 2          | 17           | 026-32800              | 026-32800              | 026-32800              | 026-32800              | 026-32800              | 026-32800              |
| 12             | 2               | Valve, Liquid Stop                       | 1, 2          | 12, 18       | 022-08740              | 022-08740              | 022-08740              | 022-08740              | 022-08740              | 022-08740              |
| 13             | 2               | Compressor                               | 1, 2          | 3, 12        |                        |                        |                        |                        |                        |                        |
| 14             | 1               | Evaporator                               | —             | 12, 19       |                        |                        |                        |                        |                        |                        |
| 15             | 4               | Valve, Solenoid                          | 1, 2          | 15, 18       | 025-31771              | 025-31771              | 025-31771              | 025-31771              | 025-31771              | 025-31771              |
| 16             | 2               | Valve, Thermal Expansion                 | 1, 2          | 15, 18       | 025-32845              | 025-32845              | 025-32845              | 025-32845              | 025-32845              | 025-32845              |
| 17             | 2               | Valve, Thermal Expansion                 | 1, 2          | 15           | 025-32844              | 025-32844              | 025-32844              | 025-32844              | 025-32844              | 025-32844              |
| 18             | 2               | Valve, Liquid Injection                  | 1, 2          | 15, 16       | 025-32908              | 025-32908              | 025-32908              | 025-32908              | 025-32908              | 025-32908              |
| 19             | 2               | Economizer                               | 1, 2          | 12, 18       | 026-34418              | 026-34418              | 026-34418              | 026-34418              | 026-34418              | 026-34418              |
| 20             | 2               | Valve, Relief                            | 1, 2          | 18           | 022-09547              | 022-09547              | 022-09547              | 022-09547              | 022-09547              | 022-09547              |
| 21             | 2               | Valve, Stop                              | 1, 2          | 18           | 022-01582              | 022-01582              | 022-01582              | 022-01582              | 022-01582              | 022-01582              |
| 22             | 4               | Valve, Ball                              | 1, 2          | 18           | 022-09172              | 022-09172              | 022-09172              | 022-09172              | 022-09172              | 022-09172              |
| 23             | 2               | Oil Filter, Includes Element             | 1, 2          | 18           | 026-33897              | 026-33897              | 026-33897              | 026-33897              | 026-33897              | 026-33897              |
| 23A            | 2               | Gasket/Seal, Oil Filter                  | 1, 2          | 18           | 026-34465              | 026-34465              | 026-34465              | 026-34465              | 026-34465              | 026-34465              |
| 24             | 2               | Element, Oil Filter                      | 1, 2          | 18           | 026-32386              | 026-32386              | 026-32386              | 026-32386              | 026-32386              | 026-32386              |
| 25             | 2               | Valve, Solenoid, Oil Supply              | 1, 2          | 18           | 025-28903              | 025-28903              | 025-28903              | 025-28903              | 025-28903              | 025-28903              |
| 26             | 2               | Adaptor, Oil Supply                      | 1, 2          | NOTE 1       | 023-18241              | 023-18241              | 023-18241              | 023-18241              | 023-18241              | 023-18241              |
| 27             | 8               | Isolator, Vibration Mount                | 1, 2          | Below        | 026-34417              | 026-34417              | 026-34417              | 026-34417              | 026-34417              | 026-34417              |

<sup>s</sup>Recommended Stock Spare Part

(TABLE CONTINUED ON PAGES 15, 16)

Note: 1. Not Shown



COMPRESSOR VIBRATION ISOLATOR [27]

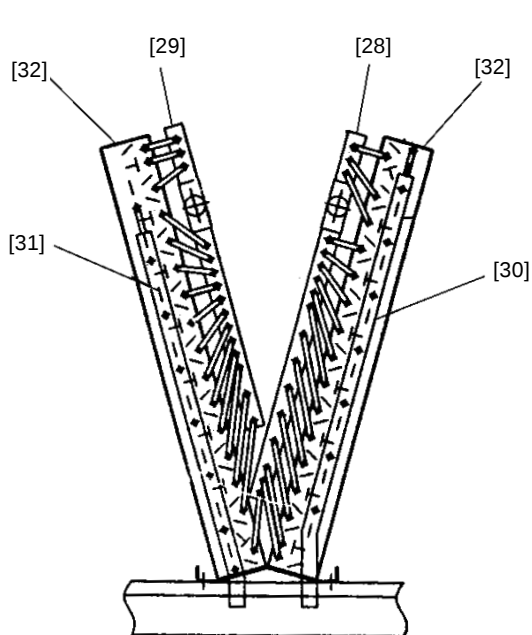
COMPRESSOR VIBRATION ISOLATOR

27975A

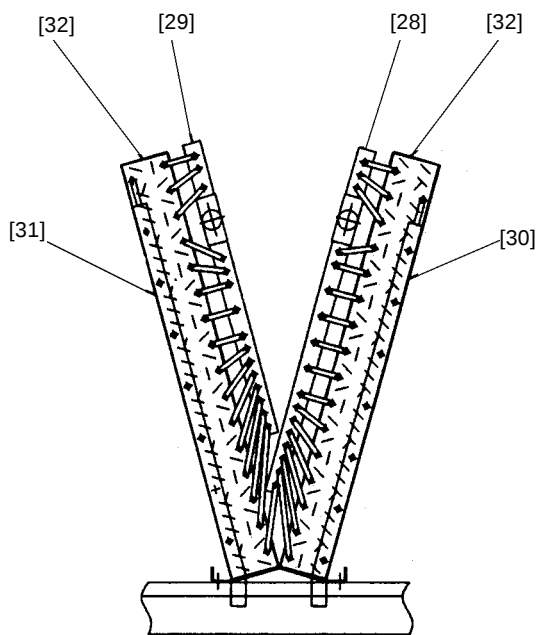
## REFRIGERANT SYSTEM COMPONENTS (Cont'd)

| ITEM NO                        | QUANT/ UNIT | DESCRIPTION              | SYSTEM NUMBER | SEE PAGE NO | UNIT MODEL         |           |           |           |                    |                    |
|--------------------------------|-------------|--------------------------|---------------|-------------|--------------------|-----------|-----------|-----------|--------------------|--------------------|
|                                |             |                          |               |             | YEAS135<br>YEAS145 | YEAS155   | YEAS165   | YEAS185   | YEAS195<br>YEAS197 | YEAS204<br>YEAS215 |
| ALUMINUM FIN COILS — STANDARD  |             |                          |               |             |                    |           |           |           |                    |                    |
| 28                             | 8           | Header, Discharge (R.H.) | 1, 2          | Below       | 375-19341          | 375-19341 | 375-19341 | 375-19341 | 375-18638          | 375-18638          |
| 29                             | 8           | Header, Discharge (L.H.) | 1, 2          |             | 375-19344          | 375-19344 | 375-19344 | 375-19344 | 375-18637          | 375-18637          |
| 30                             | 8           | Header, Liquid (R.H.)    | 1, 2          |             | 375-19338          | 375-19338 | 375-19338 | 375-19338 | 375-18650          | 375-18650          |
| 31                             | 8           | Header, Liquid (L.H.)    | 1, 2          |             | 375-19340          | 375-19340 | 375-19340 | 375-19340 | 375-18652          | 375-18652          |
| 32                             | 16          | Coil, Condenser          | 1, 2          |             | 326-33868          | 326-33868 | 326-33868 | 326-33868 | 326-33838          | 326-33838          |
| PHENOLIC-COATED COILS – OPTION |             |                          |               |             |                    |           |           |           |                    |                    |
| 28                             | 8           | Header, Discharge (R.H.) | 1, 2          | Below       | 375-20839          | 375-20839 | 375-20839 | 375-20839 | 375-20842          | 375-20842          |
| 29                             | 8           | Header, Discharge (L.H.) | 1, 2          |             | 375-20840          | 375-20840 | 375-20840 | 375-20840 | 375-20841          | 375-20841          |
| 30                             | 8           | Header, Liquid (R.H.)    | 1, 2          |             | 375-20826          | 375-20826 | 375-20826 | 375-20826 | 375-20830          | 375-20830          |
| 31                             | 8           | Header, Liquid (L.H.)    | 1, 2          |             | 375-20828          | 375-20828 | 375-20828 | 375-20828 | 375-20832          | 375-20832          |
| 32                             | 16          | Coil, Condenser          | 1, 2          |             | 326-34425          | 326-34425 | 326-34425 | 326-34425 | 326-34426          | 326-34426          |
| COPPER FIN COILS – OPTION      |             |                          |               |             |                    |           |           |           |                    |                    |
| 28                             | 8           | Header, Discharge (R.H.) | 1, 2          | Below       | 375-19341          | 375-19341 | 375-19341 | 375-19341 | 375-18638          | 375-18638          |
| 29                             | 8           | Header, Discharge (L.H.) | 1, 2          |             | 375-19344          | 375-19344 | 375-19344 | 375-19344 | 375-18637          | 375-18637          |
| 30                             | 8           | Header, Liquid (R.H.)    | 1, 2          |             | 375-19338          | 375-19338 | 375-19338 | 375-19338 | 375-18650          | 375-18650          |
| 31                             | 8           | Header, Liquid (L.H)     | 1, 2          |             | 375-19340          | 375-19340 | 375-19340 | 375-19340 | 375-18652          | 375-18652          |
| 32                             | 16          | Coil, Condenser          | 1, 2          |             | 326-34423          | 326-34423 | 326-34423 | 326-34423 | 326-34424          | 326-34424          |
| BLACK FIN COILS – OPTION       |             |                          |               |             |                    |           |           |           |                    |                    |
| 28                             | 8           | Header, Discharge (R.H.) | 1, 2          | Below       | 375-19341          | 375-19341 | 375-19341 | 375-19341 | 375-18638          | 375-18638          |
| 29                             | 8           | Header, Discharge (L.H.) | 1, 2          |             | 375-19344          | 375-19344 | 375-19344 | 375-19344 | 375-18367          | 375-18637          |
| 30                             | 8           | Header, Liquid (R.H.)    | 1, 2          |             | 375-19338          | 375-19338 | 375-19338 | 375-19338 | 375-18650          | 375-18650          |
| 31                             | 8           | Header, Liquid (L.H.)    | 1, 2          |             | 375-19340          | 375-19340 | 375-19340 | 375-19340 | 375-18652          | 375-18652          |
| 32                             | 16          | Coil, Condenser          | 1, 2          |             | 326-34421          | 326-34421 | 326-34421 | 326-34421 | 375-34422          | 326-34422          |

§ Recommended Stock Spare Parts



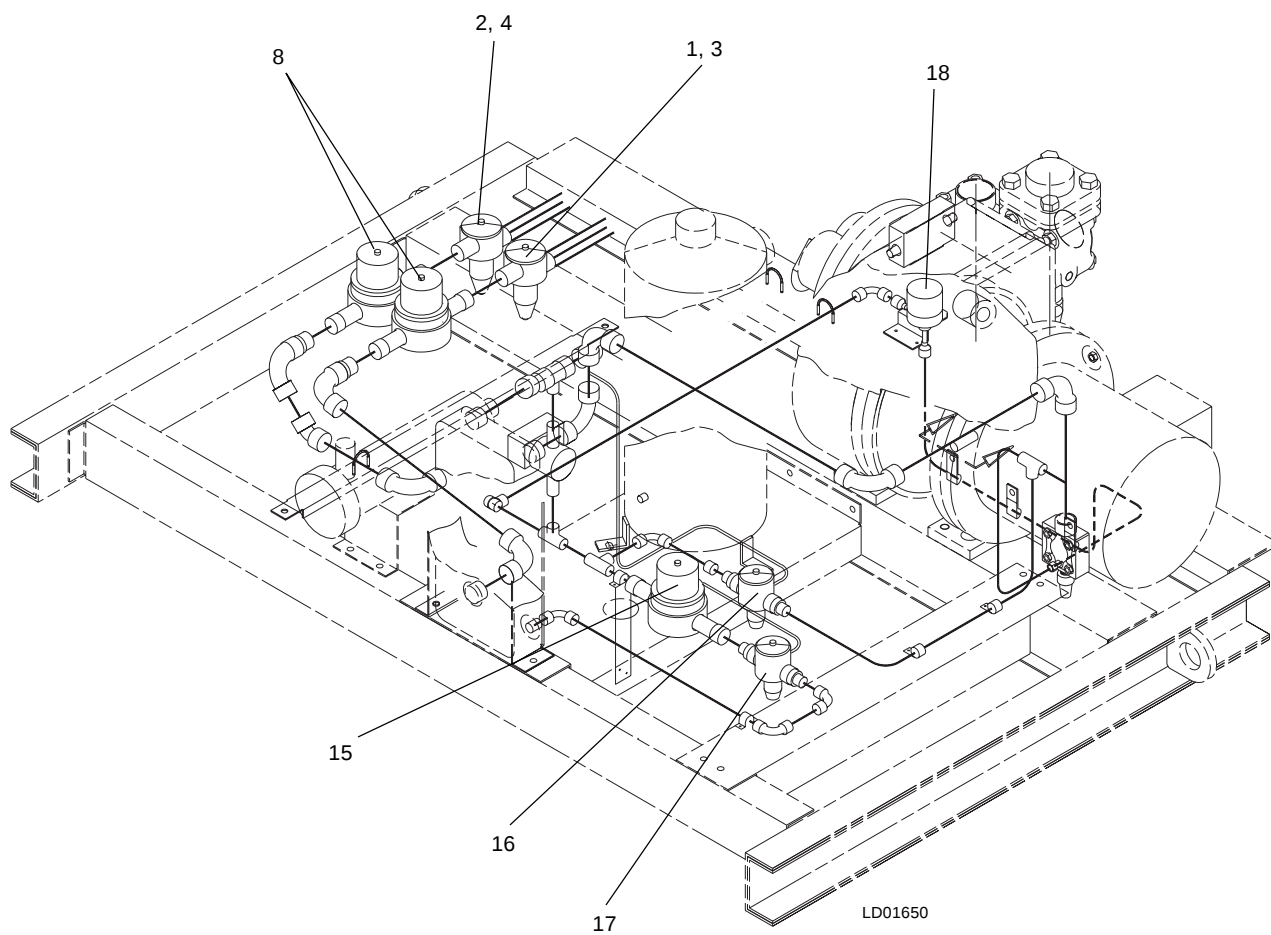
**3-ROW COIL** LD00254



**4-ROW COIL** LD00255

COIL – Typical

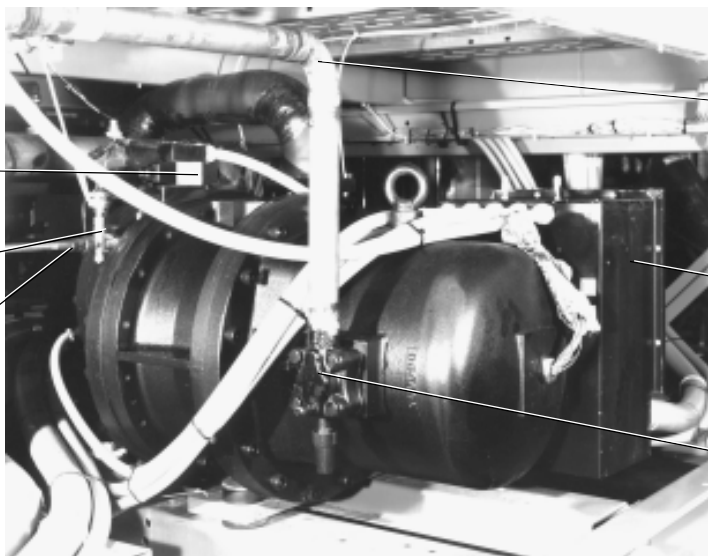
**NOTE:** [N] = Item Number from Table Above

**FIG. 7 – SYSTEM PIPING**

SLIDE VALVE CONTROL  
SOLENOID

OIL PRESSURE  
TRANSDUCER

OIL INJECTION  
PIPING



ECONOMIZER  
PIPING

MOTOR  
TERMINAL  
BOX

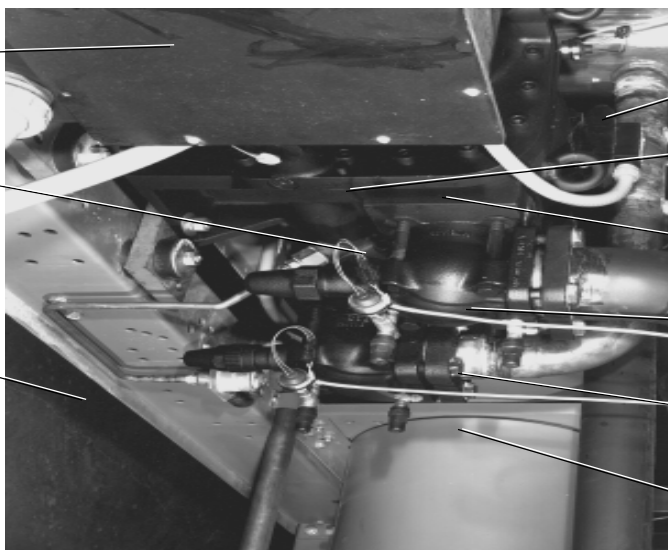
ECONOMIZER  
SERVICE  
VALVE

27973A

SLIDE VALVE CONTROL  
SOLENOID

SUCTION PRESSURE  
TRANSDUCER

MOTOR TERMINAL  
BOX



EVAPORATOR

SUCTION  
SERVICE  
VALVE

DISCHARGE  
SERVICE  
VALVE

DISCHARGE  
PRESSURE  
TRANSDUCER

LIQUID INJECTION  
SOLENOID VALVE  
[18]

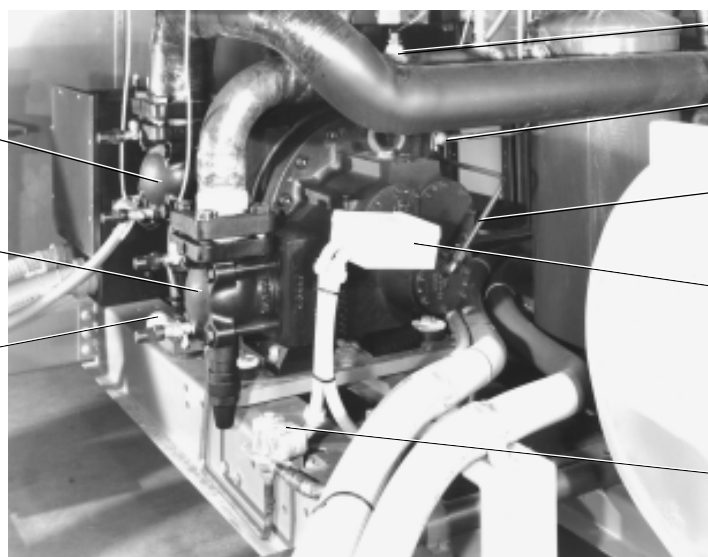
LIQUID INJECTION  
PIPING

27974A

SUCTION  
SERVICE  
VALVE

DISCHARGE  
SERVICE  
VALVE

DISCHARGE  
PRESSURE  
TRANSDUCER



DISCHARGE  
TEMPERATURE  
SENSOR

OIL INJECTION  
PIPING

SLIDE VALVE  
PISTON OIL  
SUPPLY/VENT LINE

OIL HEATER  
ELECTRICAL  
JUNCTION BOX

LIQUID INJECTION  
SOLENOID VALVE  
[18]

27972A

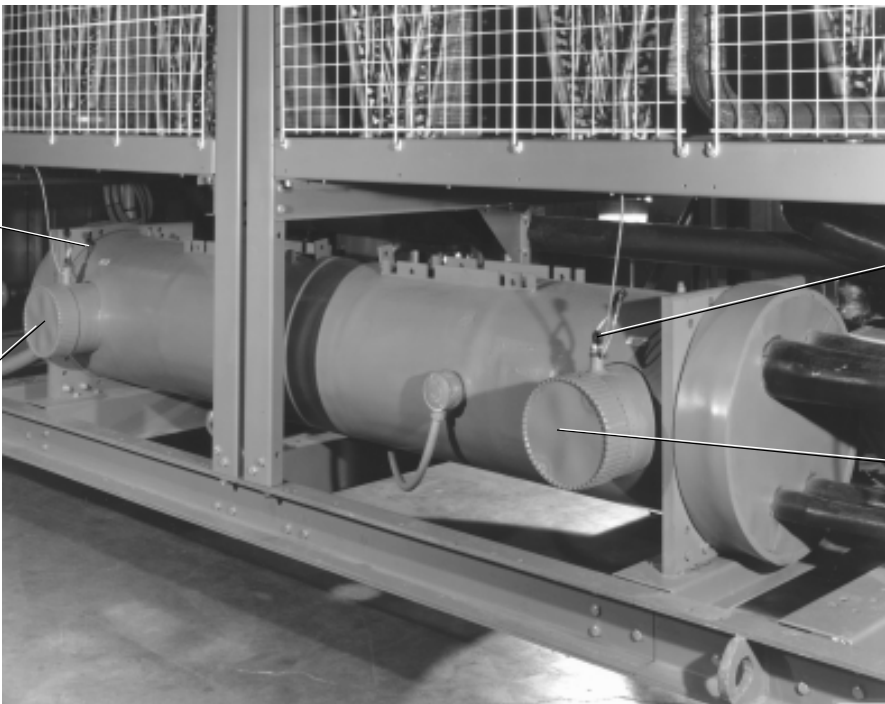
**NOTE:** [N] = Page 13 Item Number

LEAVING WATER  
TEMPERATURE  
SENSOR

EVAPORATOR  
OUTLET

RETURN WATER  
TEMPERATURE  
SENSOR

EVAPORATOR  
INLET



27967A

SYS 1 TXV  
[1]

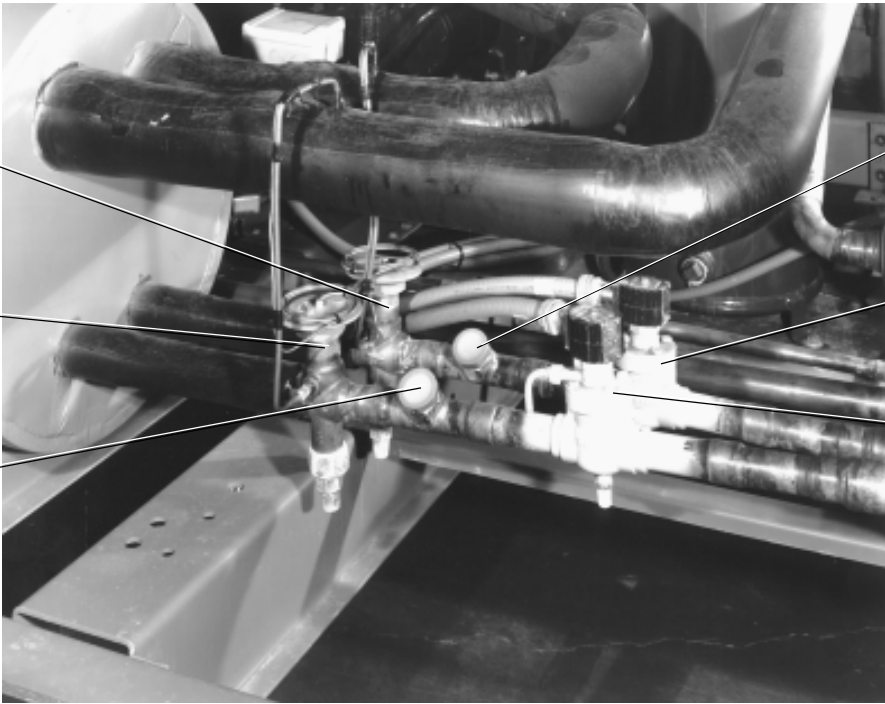
SYS 2 TXV  
[2]

SYS 2  
SIGHT GLASS  
[10, 11]

SYS 1 SIGHT  
GLASS  
[9, 11]

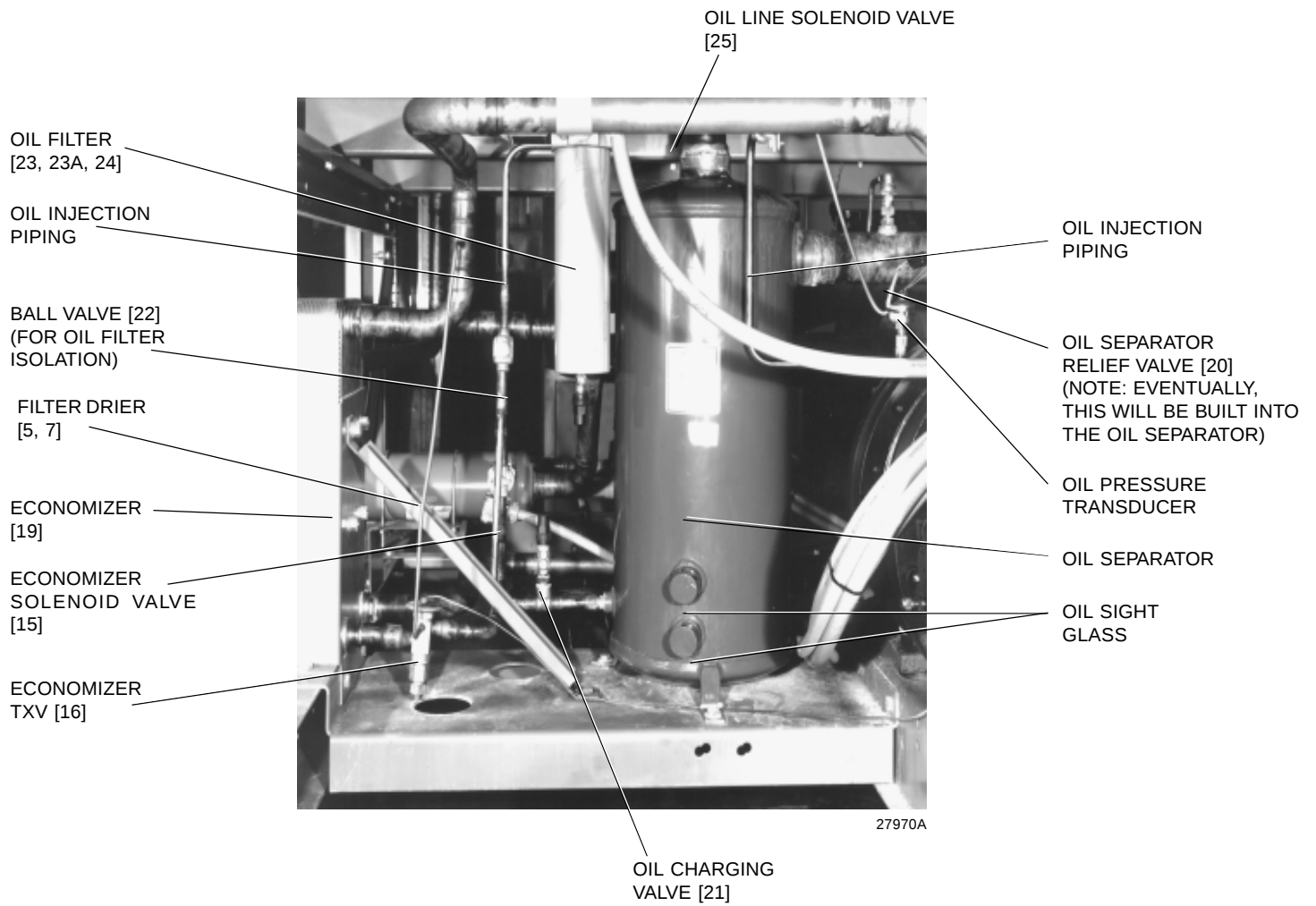
SYS 1 LIQUID  
LINE SOLENOID  
VALVE [8]

SYS 2 LIQUID  
LINE SOLENOID  
VALVE [8]

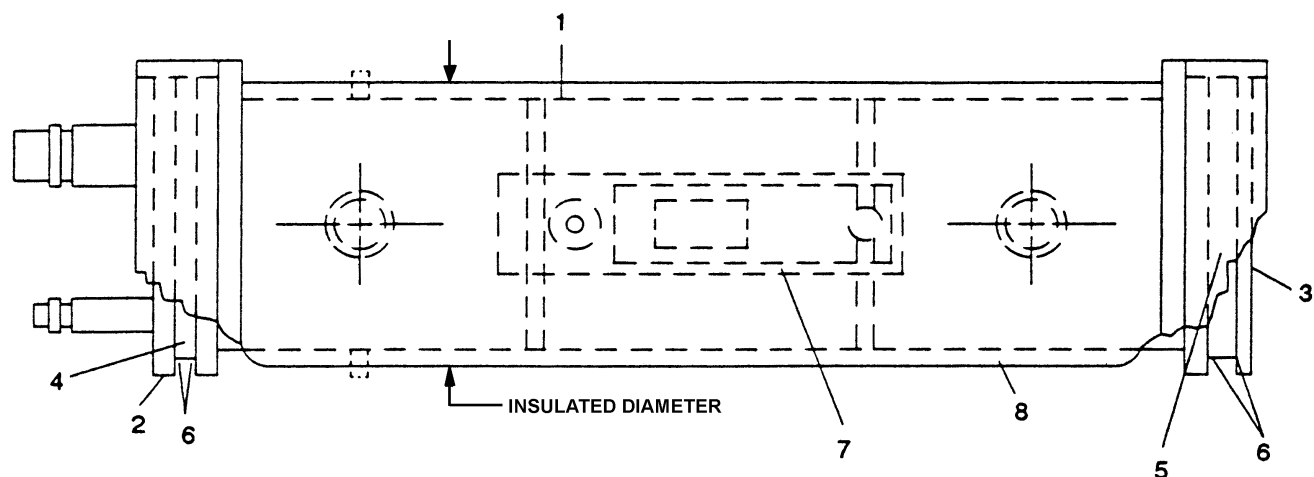


27968A

**NOTE:** [N] = Page 13 Item Number



**NOTE:** [N] = Page 13 Item Number



LD00234

### COOLER COMPONENTS

| ITEM NUMBER                 | QUANTITY PER UNIT | DESCRIPTION                                                   | DWP  | UNIT MODEL                |                                                          |
|-----------------------------|-------------------|---------------------------------------------------------------|------|---------------------------|----------------------------------------------------------|
|                             |                   |                                                               |      | YEAS135, YEAS145, YEAS155 | YEAS165, YEAS185<br>YEAS195, YEAS197<br>YEAS204, YEAS215 |
| <b>1</b>                    | 1                 | Cooler, Less Insulation & Heater<br>(Includes Items 2 thru 6) | 150# | 375-17511-000             | 375-17513-000                                            |
|                             |                   |                                                               | 300# | 375-21137-000             | 375-21139-000                                            |
| <b>2</b>                    | 1                 | Head, Connection End                                          | ALL  | 375-18009-000             | 375-18011-000                                            |
| <b>3</b>                    | 1                 | Head, Back End                                                | ALL  | 375-18008-000             | 375-18013-000                                            |
| <b>4</b>                    | 1                 | Pass Baffle, Connection End                                   | ALL  | 375-17085-000             | 375-18024-000                                            |
| <b>5</b>                    | 1                 | Pass Baffle, Back End                                         | ALL  | 075-17084-000             | 075-18022-000                                            |
| <sup>s</sup> 6 <sup>+</sup> | 4                 | Gasket, Pass Baffle and Head                                  | ALL  | 075-17082-000             | 075-18023-000                                            |
| <sup>s</sup> 7              | 1                 | Heater                                                        | ALL  | 025-22690-000             | —                                                        |
|                             | 1                 |                                                               |      | 025-22691-000             | —                                                        |
|                             | 2                 |                                                               |      | —                         | 025-22691-000                                            |
| <b>8</b>                    | 3                 | Insulation, 3/4" x 49" x 65"                                  | ALL  | 010-04198-000             | 010-04198-000                                            |

+ When replacing gasket, Item 6, use:

<sup>s</sup>Sealer, Gasket, 013-02827-000

<sup>s</sup>Primer, 013-01753-000

<sup>s</sup> Recommended Stock Spare Part

## REPLACEMENT COMPONENTS FOR UNIT OPTIONS

| ITEM NO. | QUANT PER UNIT | DESCRIPTION                         |                             | VOLT CODE | MODEL NO.     |                  |
|----------|----------------|-------------------------------------|-----------------------------|-----------|---------------|------------------|
|          |                |                                     |                             |           | ALL UNITS     | INDIVIDUAL UNITS |
| <b>A</b> | 1              | UNIT-MOUNTED SERVICE SWITCH & FUSES | Switch, Disconnect          | -50       | —             | See Table Below  |
| <b>B</b> | 3              |                                     | Fuse, Disconnect (System 1) | -50       | —             |                  |
| <b>C</b> | 3              |                                     | Fuse, Disconnect (System 2) | -50       | —             |                  |
| <b>D</b> | 1              | UNIT-MOUNTED CIRCUIT BREAKERS       | Circuit Breaker (System 1)  | -50       | —             |                  |
| <b>E</b> | 1              |                                     | Circuit Breaker (System 2)  | -50       | —             |                  |
| <b>F</b> | 1              | CONTROL TRANSFORMER                 | Transformer                 | -50       | 025-29627-003 | —                |
| <b>G</b> | 2              |                                     | Fuse, Transformer           | -50       | 025-27972-000 | —                |
| <b>H</b> | 1              | FLOW CONTROL SWITCH                 | Switch, Flow 150 psi        | ALL       | 024-26116-000 | —                |
|          |                |                                     | 300 psi                     | ALL       | 024-12144-000 | —                |
| <b>I</b> | 1              | BAS INTERFACE                       | Control, Remote Reset       | ALL       | 031-00814-000 | —                |
| <b>J</b> | 2              | CHICAGO CODE                        | Valve, Relief               | ALL       | 022-08863-000 | —                |

## UNIT-MOUNTED SERVICE SWITCH (A) AND FUSES (B, C) AND UNIT-MOUNTED CIRCUIT BREAKERS (D, E)

| UNIT NO. | UNIT MODEL |           |           |           |           |           |           |           |           |
|----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|          | YEAS135    | YEAS145   | YEAS155   | YEAS165   | YEAS185   | YEAS195   | YEAS197   | YEAS204   | YEAS215   |
| <b>A</b> | 024-27241  | 024-27241 | 024-27242 | 024-27242 | 024-27242 | 024-27242 | 024-27242 | 024-27242 | 024-27242 |
| <b>B</b> | 025-32524  | 025-32525 | 025-32526 | 025-32527 | 025-32528 | 025-32529 | 025-32529 | 025-32529 | 025-32529 |
| <b>C</b> | 025-32524  | 025-32525 | 025-32525 | 025-32527 | 025-32528 | 025-32527 | 025-32527 | 025-32529 | 025-32529 |
| <b>D</b> | 024-27216  | 024-27221 | 024-27222 | 024-27222 | 024-27223 | 024-27228 | 024-27228 | 024-27228 | 024-27228 |
| <b>E</b> | 024-27216  | 024-27216 | 024-27221 | 024-27222 | 024-27223 | 024-27245 | 024-27245 | 024-27228 | 024-27228 |

**NOTE:** Parts listed above are for Single Replacement Parts contained in the Option Kits.  
Part Numbers provided ARE NOT Part Numbers for complete Option Kits.



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