

# REPLACEMENT PARTS MANUAL

## PACKAGE HEAT PUMP MODEL PH421, PH484, PH605

Manual 2110-252

Revision --

Date 9-28-89

Supersedes

\*\*\*\*\*  
\* GENERAL NOTES \*  
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\*Revised and/or additional pages may be issued from time to time.  
\*A complete and current manual consists of pages dated as shown in the following index.

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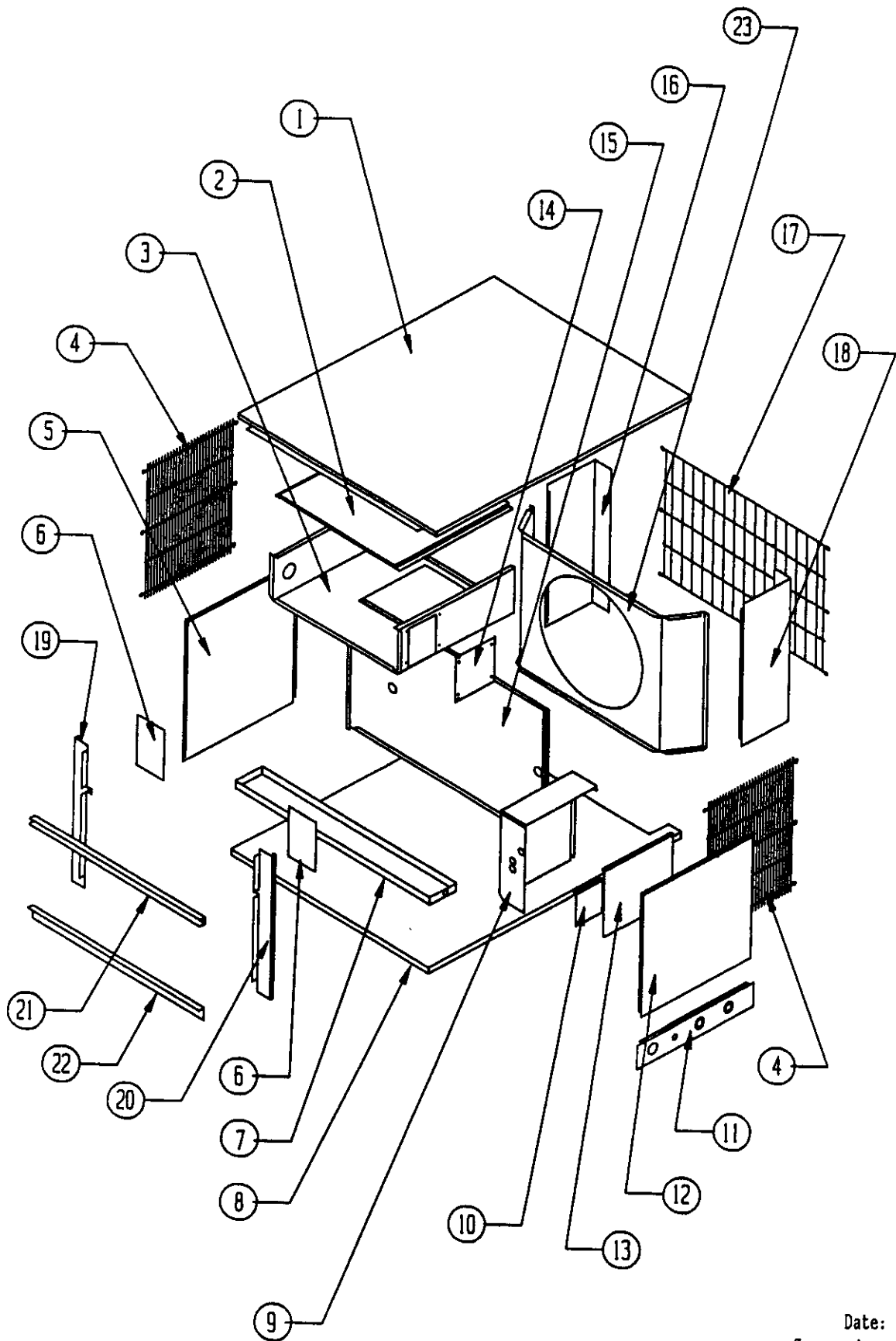
\*\*\*\*\*  
\*\*\* IMPORTANT \*\*\*  
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Contact the installing and/or local Bard distributor for all parts requirements. Make sure you have the complete model and serial number available from the unit rating plate.

BARD MANUFACTURING COMPANY

BRYAN, OHIO 43506

# CABINET COMPONENTS



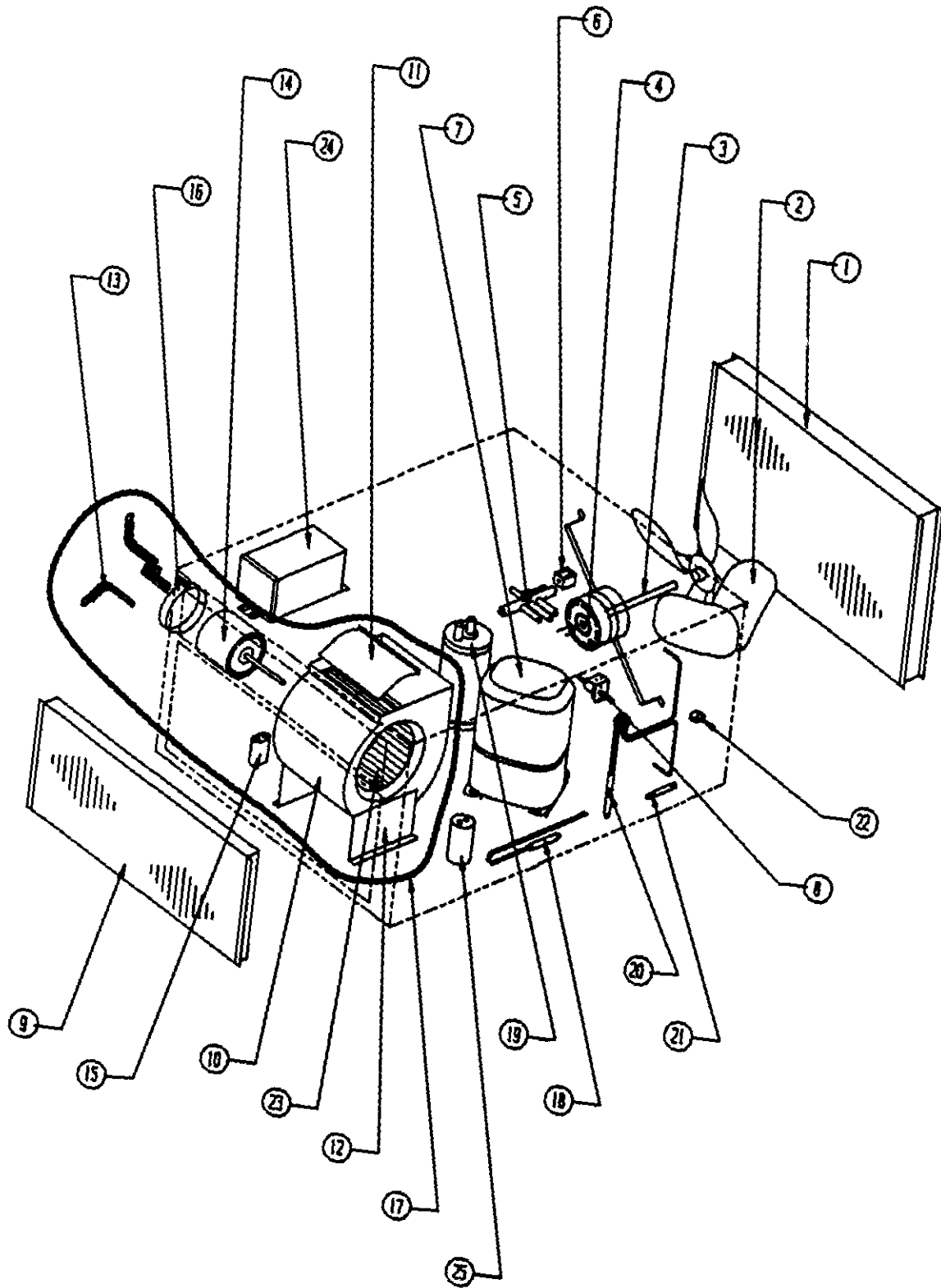
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# CABINET COMPONENTS

| Item | Part No.      | Description                              | U<br>S<br>A<br>G<br>E |
|------|---------------|------------------------------------------|-----------------------|
| 1    | 506-012       | Top                                      | X                     |
| 2    | 134-021       | Heat Strip Shield                        | X                     |
| 3    | 520-067       | Blower Partition                         | X                     |
| 4    | 7051-007      | Side Grille                              | 2                     |
| 5    | 500-144       | Left Side                                | X                     |
| 6    | 136-011       | Side Fills                               | 2                     |
| 7    | 123-048       | Drain Pan                                | X                     |
| 8    | 527-012       | Base                                     | X                     |
| 9    | Control Panel | See control panel drawing and parts list | X                     |
| 10   | 142-016       | Entrance Cover Plate                     | X                     |
| 11   | 556-015       | Entrance Panel                           | X                     |
| 12   | 500-020       | Right Side                               | X                     |
| 13   | 132-035       | Control Panel Cover                      | X                     |
| 14   | 142-017       | OKW Cover Plate                          | X                     |
| 15   | 520-069       | Compressor Partition                     | X                     |
| 16   | 149-053       | Left Rear Corner                         | X                     |
| 17   | 7051-005      | Condenser Grille                         | X                     |
| 18   | 149-052       | Right Rear Corner                        | X                     |
| 19   | 549-050       | Left Front Corner                        | X                     |
| 20   | 549-016       | Right Front Corner                       | X                     |
| 21   | 164-502       | Plenum Channel                           | X                     |
| 22   | 104-525       | Plenum Angle                             | X                     |
| 23   | 124-010       | Fan Shroud                               | X                     |

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# FUNCTIONAL COMPONENTS



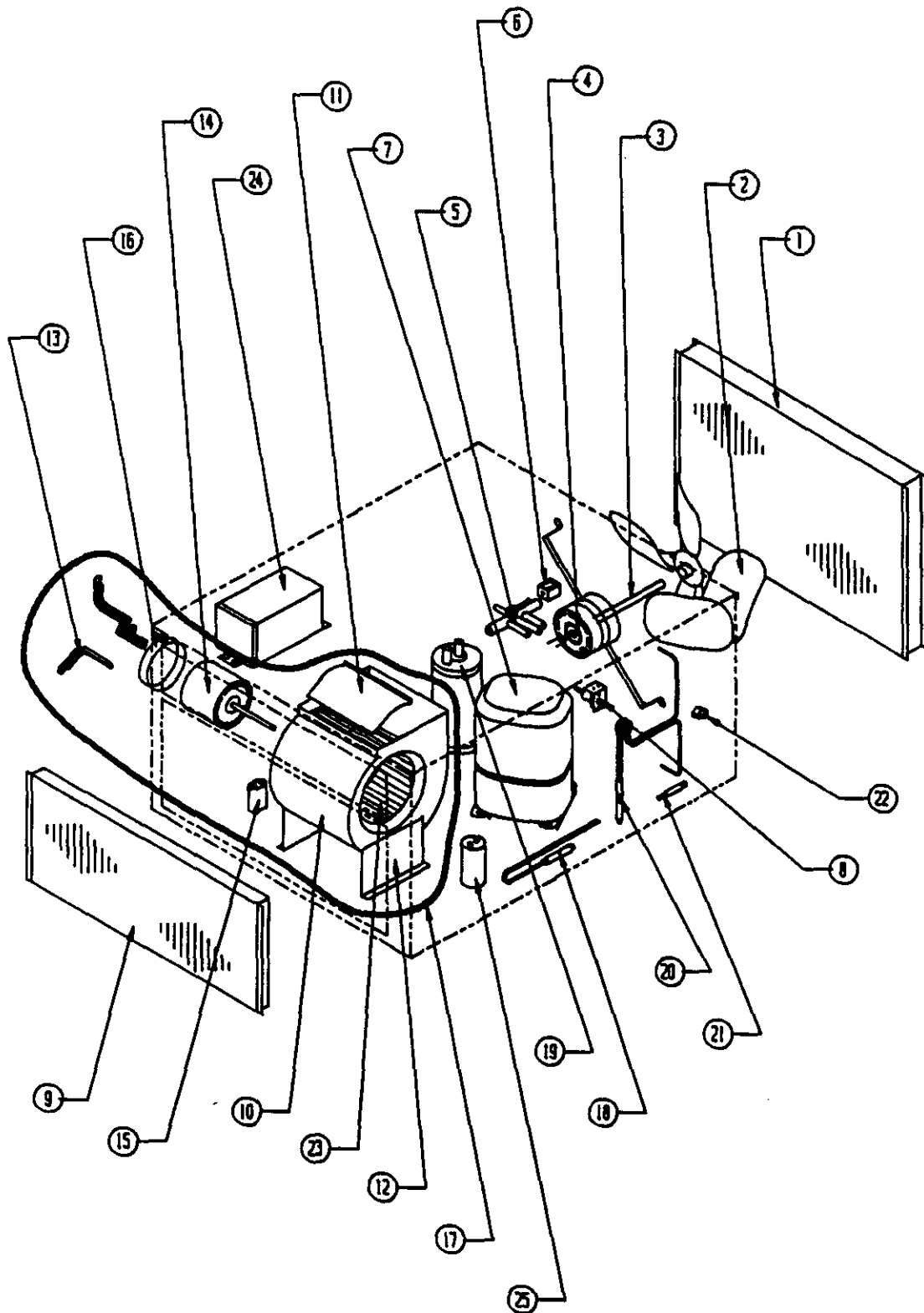
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FUNCTIONAL COMPONENTS

| Dwg.<br>No. | Part No. | Description                     | P<br>H<br>4<br>2<br>1 | P<br>H<br>4<br>2<br>1<br>B | P<br>H<br>4<br>2<br>1<br>C | P<br>H<br>4<br>8<br>4<br>B | P<br>H<br>4<br>8<br>4<br>C | P<br>H<br>4<br>8<br>4<br>E | P<br>H<br>4<br>8<br>4<br>F | P<br>H<br>4<br>8<br>4<br>G | P<br>H<br>6<br>0<br>5 | P<br>H<br>6<br>0<br>5<br>B | P<br>H<br>6<br>0<br>5<br>C | P<br>H<br>6<br>0<br>5<br>E | P<br>H<br>6<br>0<br>5<br>F | P<br>H<br>6<br>0<br>5<br>G |
|-------------|----------|---------------------------------|-----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1           | 5051-029 | Condenser Coil                  | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 2           | 5151-029 | Fan Blade                       | X                     | X                          | X                          | X                          | X                          |                            |                            |                            |                       |                            |                            |                            |                            |                            |
| 2           | 5151-030 | Fan Blade                       |                       |                            |                            |                            |                            |                            |                            |                            | X                     | X                          | X                          |                            |                            |                            |
| 2           | 5151-026 | Fan Blade                       |                       |                            |                            |                            |                            |                            | X                          | X                          | X                     |                            |                            | X                          | X                          | X                          |
| 3           | 8200-004 | Motor Mount                     | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 4           | 8105-021 | Motor                           | X                     | X                          | X                          | X                          | X                          |                            |                            |                            |                       |                            |                            |                            |                            |                            |
| 4           | 8106-016 | Motor                           |                       |                            |                            |                            |                            |                            |                            |                            | X                     | X                          | X                          |                            |                            |                            |
| 4           | 8105-014 | Motor                           |                       |                            |                            |                            |                            | X                          | X                          | X                          |                       |                            |                            | X                          | X                          | X                          |
| 5           | 5650-006 | Reversing Valve                 | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          |                       |                            |                            |                            |                            |                            |
| 5           | 5650-010 | Reversing Valve                 |                       |                            |                            |                            |                            |                            |                            |                            | X                     | X                          | X                          | X                          | X                          | X                          |
| 6           | 5650-008 | Reversing Valve Solenoid        | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 7           | 8000-063 | Compressor                      | X                     |                            |                            |                            |                            |                            |                            |                            |                       |                            |                            |                            |                            |                            |
| 7           | 8000-064 | Compressor                      |                       | X                          |                            |                            |                            |                            |                            |                            |                       |                            |                            |                            |                            |                            |
| 7           | 8000-065 | Compressor                      |                       |                            | X                          |                            |                            |                            |                            |                            |                       |                            |                            |                            |                            |                            |
| 7           | 8000-081 | Compressor                      |                       |                            |                            | X                          |                            |                            |                            | X                          |                       |                            |                            |                            |                            |                            |
| 7           | 8000-082 | Compressor                      |                       |                            |                            |                            | X                          |                            | X                          |                            |                       |                            |                            |                            |                            |                            |
| 7           | 8000-083 | Compressor                      |                       |                            |                            |                            | X                          |                            | X                          |                            |                       |                            |                            |                            |                            |                            |
| 7           | 8000-074 | Compressor                      |                       |                            |                            |                            |                            |                            |                            |                            | X                     |                            |                            |                            |                            |                            |
| 7           | 8000-075 | Compressor                      |                       |                            |                            |                            |                            |                            |                            |                            |                       | X                          |                            |                            |                            |                            |
| 7           | 8000-049 | Compressor                      |                       |                            |                            |                            |                            |                            |                            |                            |                       |                            | X                          |                            |                            |                            |
| 7           | 8000-078 | Compressor                      |                       |                            |                            |                            |                            |                            |                            |                            |                       |                            |                            | X                          |                            |                            |
| 7           | 8000-079 | Compressor                      |                       |                            |                            |                            |                            |                            |                            |                            |                       |                            |                            |                            | X                          |                            |
| 7           | 8000-077 | Compressor                      |                       |                            |                            |                            |                            |                            |                            |                            |                       |                            |                            |                            |                            | X                          |
| 8           | 8406-010 | High Pressure Switch            | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 9           | 5060-025 | Evaporator Coil                 | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 10          | 151-082  | Blower Housing                  | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 11          | 144-129  | Blower Diffuser                 | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 12          | 104-795  | Blower Leg                      | 2                     | 2                          | 2                          | 2                          | 2                          | 2                          | 2                          | 2                          | 2                     | 2                          | 2                          | 2                          | 2                          | 2                          |
| 13          | 8200-034 | Motor Mount Arm                 | 3                     | 3                          | 3                          | 3                          | 3                          | 3                          | 3                          | 3                          | 3                     | 3                          | 3                          | 3                          | 3                          | 3                          |
| 14          | 8106-015 | Motor                           | X                     | X                          | X                          | X                          | X                          |                            |                            |                            | X                     | X                          | X                          |                            |                            |                            |
| 14          | 8108-002 | Motor                           |                       |                            |                            |                            |                            | X                          | X                          | X                          |                       |                            |                            | X                          | X                          | X                          |
| 15          | 8552-005 | Capacitor 10/370                | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 16          | 8200-033 | Motor Mount Band                | X                     | X                          | X                          | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 17          | 900-137  | Complete Blower Assembly        | X                     | X                          | X                          |                            |                            |                            |                            |                            |                       |                            |                            |                            |                            |                            |
| 17          | 900-138  | Complete Blower Assembly        |                       |                            |                            |                            |                            | X                          | X                          | X                          |                       |                            |                            | X                          | X                          | X                          |
| 17          | 900-139  | Complete Blower Assembly        |                       |                            |                            | X                          | X                          | X                          |                            |                            | X                     | X                          | X                          |                            |                            |                            |
| 18          | 800-0154 | Cooling Capillary Tube Assembly | X                     | X                          | X                          |                            |                            |                            |                            |                            |                       |                            |                            |                            |                            |                            |
| 18          | 800-0153 | Cooling Capillary Tube Assembly |                       |                            |                            | X                          | X                          | X                          | X                          | X                          |                       |                            |                            |                            |                            |                            |
| 18          | 800-0152 | Cooling Capillary Tube Assembly |                       |                            |                            |                            |                            |                            |                            |                            | X                     | X                          | X                          | X                          | X                          | X                          |

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Supersedes:

# FUNCTIONAL COMPONENTS (continued)



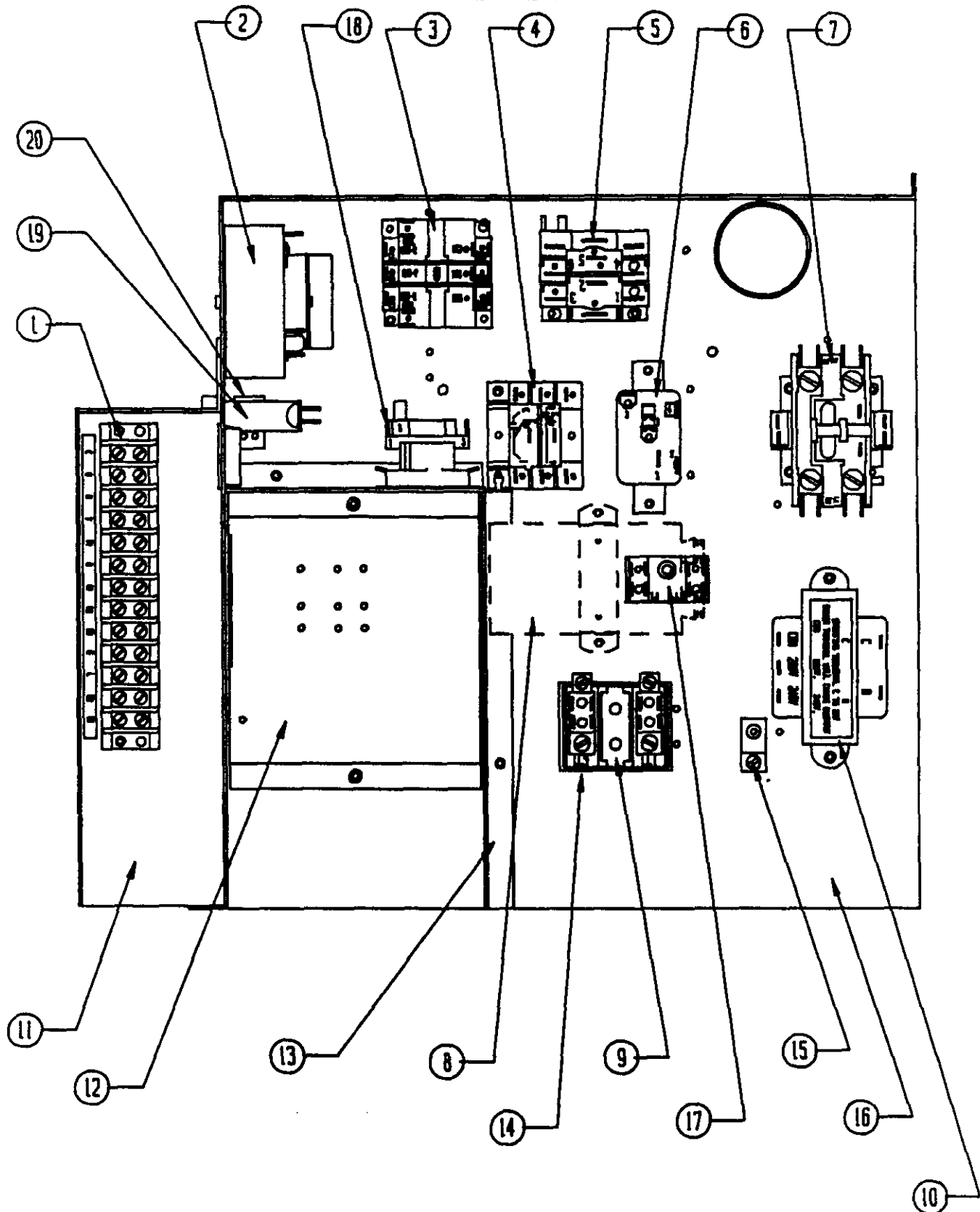
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Supersedes:

FUNCTIONAL COMPONENTS (continued)

| Dwg.<br>No. | Part No. | Description                     | P<br>H<br>4<br>2<br>1 | P<br>H<br>4<br>2<br>1<br> <br>B | P<br>H<br>4<br>2<br>1<br> <br>C | P<br>H<br>4<br>8<br>4<br> <br>B | P<br>H<br>4<br>8<br>4<br> <br>C | P<br>H<br>4<br>8<br>4<br> <br>E | P<br>H<br>4<br>8<br>4<br> <br>F | P<br>H<br>4<br>8<br>4<br> <br>G | P<br>H<br>6<br>0<br>5 | P<br>H<br>6<br>0<br>5<br> <br>B | P<br>H<br>6<br>0<br>5<br> <br>C | P<br>H<br>6<br>0<br>5<br> <br>E | P<br>H<br>6<br>0<br>5<br> <br>F | P<br>H<br>6<br>0<br>5<br> <br>G |
|-------------|----------|---------------------------------|-----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 19          | 5202-011 | Accumulator                     | x                     | x                               | x                               | x                               | x                               | x                               | x                               | x                               |                       |                                 |                                 |                                 |                                 |                                 |
| 19          | 5202-017 | Accumulator                     |                       |                                 |                                 |                                 |                                 |                                 |                                 |                                 | x                     | x                               | x                               | x                               | x                               | x                               |
| 20          | 800-0064 | Heating Capillary Tube Assembly | x                     | x                               | x                               |                                 |                                 |                                 |                                 |                                 |                       |                                 |                                 |                                 |                                 |                                 |
| 20          | 800-0067 | Heating Capillary Tube Assembly |                       |                                 |                                 | x                               | x                               | x                               | x                               | x                               |                       |                                 |                                 |                                 |                                 |                                 |
| 20          | 800-0069 | Heating Capillary Tube Assembly |                       |                                 |                                 |                                 |                                 |                                 |                                 |                                 | x                     | x                               | x                               | x                               | x                               | x                               |
| 21          | 5651-036 | Check Valve                     | x                     | x                               | x                               | x                               | x                               | x                               | x                               | x                               | x                     | x                               | x                               | x                               | x                               | x                               |
| 22          | 8408-016 | Defrost Thermostat              | x                     | x                               | x                               | x                               | x                               | x                               | x                               | x                               | x                     | x                               | x                               | x                               | x                               | x                               |
| 23          | 5152-045 | Blower Wheel                    | x                     | x                               | x                               |                                 |                                 |                                 |                                 |                                 |                       |                                 |                                 |                                 |                                 |                                 |
| 23          | 5152-015 | Blower Wheel                    |                       |                                 |                                 | x                               | x                               | x                               | x                               | x                               | x                     | x                               | x                               | x                               | x                               | x                               |
| 24          | 8407-004 | Transformer 460 volt            |                       |                                 | x                               |                                 |                                 | x                               |                                 |                                 |                       |                                 | x                               |                                 |                                 |                                 |
| 25          | 8552-030 | Capacitor 40/440                | x                     |                                 |                                 | x                               |                                 |                                 |                                 | x                               |                       |                                 |                                 |                                 |                                 | x                               |
| 25          | 8552-043 | Capacitor 45/370                |                       |                                 |                                 |                                 |                                 |                                 |                                 |                                 | 2                     |                                 |                                 |                                 |                                 |                                 |
| 25          | 8552-026 | Capacitor 15/370                |                       |                                 | x                               |                                 | x                               |                                 |                                 |                                 |                       |                                 |                                 |                                 |                                 |                                 |
| 25          | 8552-004 | Capacitor 7-1/2 /370            |                       |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                       |                                 | x                               |                                 |                                 |                                 |

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Supersedes:

# CONTROL PANEL



Date: 9-28-89  
Supersedes:

# CONTROL PANEL

| Dwg. No. | Part No. | Description             | P<br>H<br>4<br>2<br>1 | P<br>H<br>4<br>2<br>1<br>B | P<br>H<br>4<br>2<br>1<br>C | P<br>H<br>4<br>8<br>4 | P<br>H<br>4<br>8<br>4<br>B | P<br>H<br>4<br>8<br>4<br>C | P<br>H<br>4<br>8<br>4<br>E | P<br>H<br>4<br>8<br>4<br>F | P<br>H<br>4<br>8<br>4<br>G | P<br>H<br>6<br>0<br>5 | P<br>H<br>6<br>0<br>5<br>B | P<br>H<br>6<br>0<br>5<br>C | P<br>H<br>6<br>0<br>5<br>E | P<br>H<br>6<br>0<br>5<br>F | P<br>H<br>6<br>0<br>5<br>G |
|----------|----------|-------------------------|-----------------------|----------------------------|----------------------------|-----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1        | 8607-010 | Terminal Strip          | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 2        | 8612-012 | Timer                   | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 3        | 8201-047 | Defrost Relay           | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 4        | 8201-013 | Emergency Heat Relay    | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 5        | 8201-024 | Compressor Fault Relay  | X                     |                            |                            | X                     |                            |                            |                            |                            |                            | X                     |                            |                            |                            |                            |                            |
| 5        | 8201-008 | Blower Relay            |                       |                            | X                          |                       |                            | X                          |                            |                            |                            |                       |                            | X                          |                            |                            |                            |
| 6        | 8201-008 | Blower Relay            | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 7        | 8401-007 | Contactor               | X                     |                            |                            |                       |                            |                            |                            |                            |                            |                       |                            |                            |                            |                            |                            |
| 7        | 8401-002 | Contactor               |                       | X                          | X                          |                       | X                          | X                          | X                          |                            |                            |                       |                            | X                          | X                          |                            |                            |
| 7        | 8401-011 | Contactor               |                       |                            |                            |                       |                            |                            |                            |                            |                            |                       | X                          |                            |                            | X                          |                            |
| 7        | 8401-003 | Contactor               |                       |                            |                            | X                     |                            |                            |                            |                            | X                          |                       |                            |                            |                            |                            |                            |
| 7        | 8401-016 | Contactor               |                       |                            |                            |                       |                            |                            |                            |                            |                            | X                     |                            |                            |                            |                            | X                          |
| 8        | 8552-026 | Capacitor 15/370        | X                     | X                          |                            | X                     | X                          |                            | X                          | X                          | X                          |                       |                            |                            |                            |                            |                            |
| 8        | 8552-004 | Capacitor 7-1/2 /370    |                       |                            |                            |                       |                            |                            |                            |                            |                            | X                     | X                          |                            | X                          | X                          | X                          |
| 9        | 8607-013 | Terminal Block          | X                     |                            |                            | X                     |                            |                            |                            | 2                          | X                          | X                     |                            |                            |                            | 2                          | X                          |
| 9        | 8607-014 | Terminal Block          |                       | X                          | X                          |                       | X                          | X                          | X                          |                            |                            |                       | X                          | X                          | X                          |                            |                            |
| 10       | 8407-035 | Transformer             | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |                       | X                          | X                          | X                          | X                          | X                          |
| 10       | 8407-036 | Transformer             |                       |                            |                            |                       |                            |                            |                            |                            |                            | X                     |                            |                            |                            |                            |                            |
| 11       | 116Y072  | Low Voltage Box         | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 12       | 134-095  | Terminal Block Shield   | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 13       | 116Y076  | Control Panel Partition | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 14       | 8607-015 | Phenolic Insulator      |                       |                            | X                          |                       |                            | X                          |                            |                            |                            |                       |                            | X                          |                            |                            |                            |
| 14       | 134-051  | Terminal Block Barrier  |                       |                            |                            |                       |                            |                            |                            | X                          |                            |                       |                            |                            |                            | X                          |                            |
| 15       | 8611-006 | Ground Terminal         | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 16       | 516-079  | Control Panel           | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
| 17       | 8607-017 | Terminal Block          |                       |                            | X                          |                       |                            | X                          |                            |                            |                            |                       |                            | X                          |                            |                            |                            |
| 18       | 8201-045 | Time Delay Relay        |                       |                            |                            |                       |                            |                            |                            |                            |                            | X                     |                            |                            |                            |                            |                            |
| 19       | 8614-036 | Circuit Breaker         |                       |                            |                            |                       |                            |                            |                            |                            |                            | X                     |                            |                            |                            |                            |                            |
| 20       | 3000-902 | Wire Assembly           | X                     | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          | X                     | X                          | X                          | X                          | X                          | X                          |
|          | 4066-111 | Wiring Diagram          | X                     |                            |                            | X                     |                            |                            |                            |                            | X                          |                       |                            |                            |                            |                            |                            |
|          | 4066-210 | Wiring Diagram          |                       | X                          |                            |                       | X                          |                            |                            |                            |                            |                       | X                          |                            |                            |                            |                            |
|          | 4066-310 | Wiring Diagram          |                       |                            | X                          |                       |                            | X                          |                            |                            |                            |                       |                            | X                          |                            |                            |                            |
|          | 4066-510 | Wiring Diagram          |                       |                            |                            |                       |                            | X                          |                            |                            |                            |                       |                            |                            | X                          |                            |                            |
|          | 4066-610 | Wiring Diagram          |                       |                            |                            |                       |                            |                            | X                          |                            |                            |                       |                            |                            |                            | X                          |                            |
|          | 4066-112 | Wiring Diagram          |                       |                            |                            |                       |                            |                            |                            |                            |                            | X                     |                            |                            |                            | X                          |                            |
|          | 4066-110 | Wiring Diagram          |                       |                            |                            |                       |                            |                            |                            |                            |                            |                       |                            |                            |                            |                            | X                          |

Date: 9-28-89  
Supersedes:

