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# REPLACEMENT PARTS MANUAL

# WALL MOUNTED PACKAGE HEAT PUMPS

Model: **SH612D**

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## General Notes

- Revised and/or additional pages may be issued from time to time.
- A complete and current manual consists of pages shown in the following contents section.

## Important

- 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 plates.

## Contents

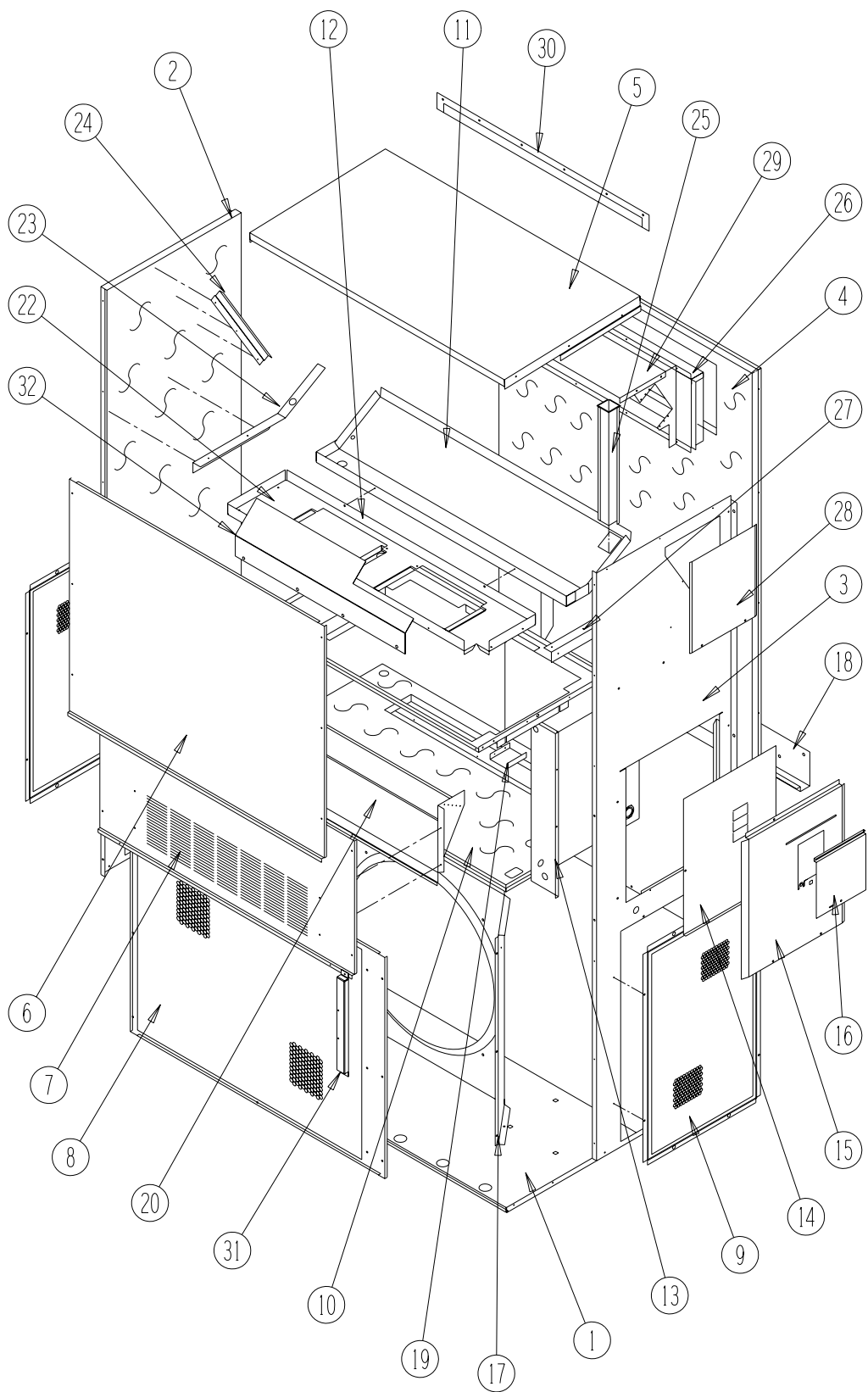
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Bard Manufacturing Company, Inc.  
Bryan, Ohio 43506  
*Since 1914...Moving ahead, just as planned.*

Manual: 2110-562  
Supersedes: **NEW**  
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Date: 12-19-07

# CABINET COMPONENTS



SEXP-305

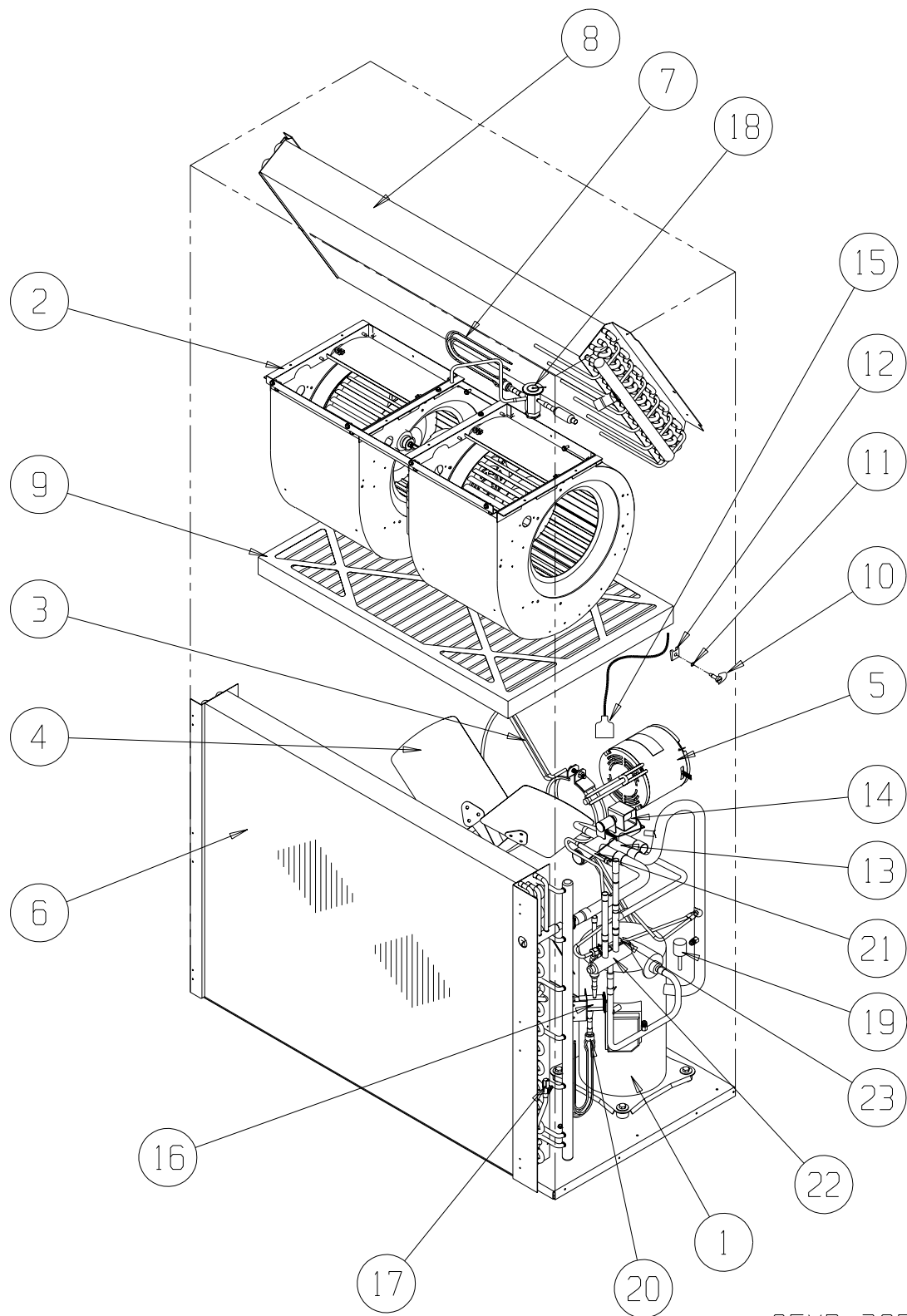
## CABINET COMPONENTS

| Dwg. No. | Part Number            | Description                                       | SH612DA, DB | SH612DC |
|----------|------------------------|---------------------------------------------------|-------------|---------|
|          |                        |                                                   |             |         |
| 1        | S127X214               | Lower Base                                        | X           | X       |
| 2        | S500-316-* ①           | Left Side                                         | X           | X       |
| 3        | S500-315-* ①           | Right Side                                        | X           | X       |
| 4        | S508-129               | Back                                              | X           | X       |
| 5        | S506-142-* ①           | Top                                               | X           | X       |
| 6        | S514-077-* ①           | Upper Front                                       | X           | X       |
| 7        | S552-224-* ①           | Service Door                                      | X           | X       |
| 8        | 118-052-* ①            | Condenser Grille                                  | X           | X       |
| 9        | 118-058-* ①            | Side Grille                                       | 2           | 2       |
| 10       | S521X258               | Condenser Partition                               | X           | X       |
| 11       | S123-102               | Drain Pan                                         | X           | X       |
| 12       | 121X216                | Blower Partition                                  | X           | X       |
| 13       | Control Panel Assembly | See Control Panel Assembly Drawing and Parts List | X           | X       |
| 14       | S132-114               | Control Panel Cover (Inner)                       | X           |         |
| 14       | S132-171               | Control Panel Cover (Inner)                       |             | X       |
| 15       | S533-113-* ①           | Control Panel Cover (Outer)                       | X           | X       |
| 16       | S153-218-* ①           | Disconnect Access Door                            | X           | X       |
| 17       | 125-029                | Fan Shroud                                        | X           | X       |
| 18       | 113-140                | Bottom Mounting Bracket                           | X           | X       |
| 19       | 137-209                | Fill                                              | X           | X       |
| 20       | BFAD-5                 | Fresh Air Damper Assembly                         | X           | X       |
| 22       | 131X099                | Filter Tray                                       | X           | X       |
| 23       | 105X877                | Left Side Support                                 | X           | X       |
| 24       | 147-046                | Left Evaporator Support                           | X           | X       |
| 25       | 135-128                | Raceway                                           | X           | X       |
| 26       | S111X034               | Outlet Air Frame Assembly                         | X           | X       |
| 27       | 105X878                | Right Side Support                                | X           | X       |
| 28       | S143-042-* ①           | Right Side Cover Plate (Outer)                    | X           | X       |
| 29       | 135-129                | Heat Shield                                       | X           | X       |
| 30       | 113-150-* ①            | Top Rain Flashing                                 | X           | X       |
| 31       | 536-258                | Not Used in this Unit                             |             |         |
| 32       | 135-175                | Not Used in this Unit                             |             |         |

① Exterior cabinet parts are manufactured with various paint color options. To insure that you receive the proper paint color, you must include the complete model and serial number of the unit for which cabinet parts are being ordered.

# FUNCTIONAL COMPONENTS

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SEXP-397 B

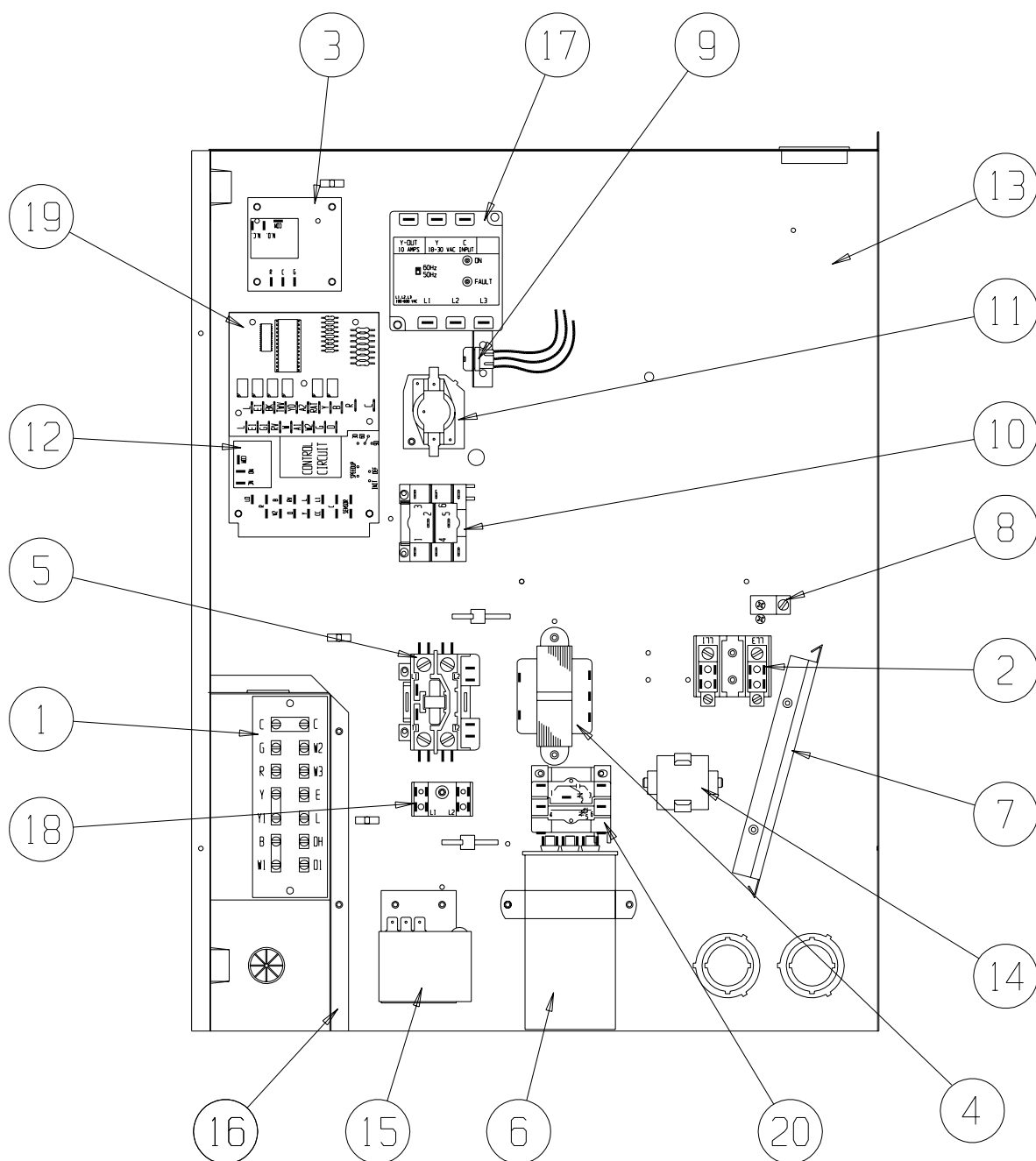
## FUNCTIONAL COMPONENTS

| Dwg. No. | Part Number | Description                                 | SH612DA | SH612DB | SH612DC |
|----------|-------------|---------------------------------------------|---------|---------|---------|
| 1        | 8000-150    | Compressor                                  | X       |         |         |
| 1        | 8000-162    | Compressor                                  |         | X       |         |
| 1        | 8000-248    | Compressor                                  |         |         | X       |
| 2        | S900-283    | Blower Assembly                             | X       | X       |         |
| 2        | S900-284    | Blower Assembly                             |         |         | X       |
| 3        | 8200-004    | Fan Motor Mount                             | X       | X       | X       |
| 4        | 5151-027    | Fan Blade                                   | X       | X       | X       |
| 5        | 8105-039    | Condenser Motor                             | X       | X       |         |
| 5        | 8105-030    | Condenser Motor                             |         |         | X       |
| 6        | 5051-124BX  | Condenser Coil                              | X       | X       | X       |
| 7        | 800-0264    | Cooling Distributor Assembly                | X       | X       | X       |
| 8        | 917-0108BX  | Evaporator Coil Assembly                    | X       | X       | X       |
| 9        | 7004-016    | Air Filter 1" Throw Away                    | X       | X       | X       |
| 9        | 7003-030    | Air Filter 1" Washable                      | X       | X       | X       |
| 9        | 7004-027    | Air Filter 2" Pleated                       | X       | X       | X       |
| 10       | 1171-022    | 1/4 Turn Fastener                           | X       | X       | X       |
| 11       | 1171-024    | 1/4 Turn Retainer                           | X       | X       | X       |
| 12       | 1171-023    | 1/4 Receptacle                              | X       | X       | X       |
| 13       | 5650-041    | Reversing Valve with 24V Solenoid Coil      | X       | X       | X       |
| 14       | 5650-042    | Rev. Valve Solenoid, Red Casing (Ranco)     | X       | X       | X       |
| 14       | 5650-043    | Rev. Valve Solenoid, Black Casing (Wilspec) | X       | X       | X       |
| 14       | 5650-046    | Rev. Valve Solenoid, Black Casing (San Hua) | X       | X       | X       |
| 15       | 5650-037    | Molded Plug 36" Lead                        | 2       | 2       | 2       |
| 16       | 5651-163    | Heating Expansion Valve                     | X       | X       | X       |
| 17       | 8620-095    | Defrost Sensor                              | X       | X       | X       |
| 18       | 5651-103    | Cooling Expansion Valve                     | X       | X       | X       |
| 19       | 1804-0106   | High Pressure Switch (Flare) ①              | X       | X       | X       |
| 20       | 800-0355    | Heating Distributor Assembly                | X       | X       | X       |
| 21       | 800-0326    | Drain Back Assembly                         | X       | X       | X       |
| 22       | 5650-045    | Three-Way Valve with 24V Solenoid Coil      | X       | X       | X       |
| 23       | 5650-042    | Rev. Valve Solenoid, Red Casing (Ranco)     | X       | X       | X       |
| 23       | 5650-043    | Rev. Valve Solenoid, Black Casing (Wilspec) | X       | X       | X       |
| 23       | 5650-046    | Rev. Valve Solenoid, Black Casing (San Hua) | X       | X       | X       |
| NS       | 1804-0107   | Low Pressure Switch (Flare) ①               | X       | X       | X       |
| NS       | 5651-146    | Check Valve                                 | X       | X       | X       |
| NS       | CMA-6       | Low Ambient Switch (Flare) ①                | X       | X       | X       |

NS – Not Shown

① – Optional

## CONTROL PANEL



SEXP-398 A

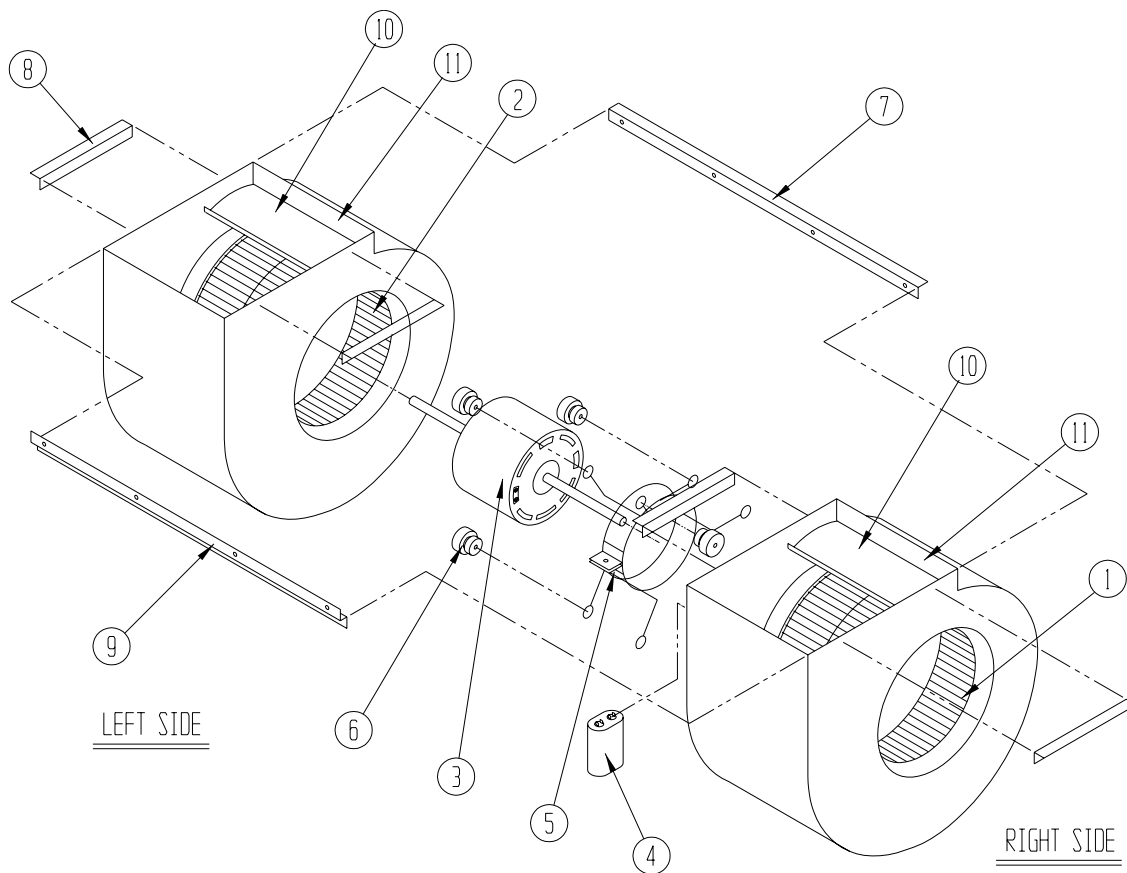
## CONTROL PANEL

| Drawing No. | Part No.  | Description                     | SH612DA | SH612DB | SH612DC |
|-------------|-----------|---------------------------------|---------|---------|---------|
| 1           | 8607-019  | Low Voltage Terminal Strip      | X       | X       | X       |
| 2           | 8607-013  | Terminal Block 2 Pole           | X       |         |         |
| 2           | 8607-014  | Terminal Block 3 Pole           |         | X       | X       |
| 2           | 8607-015  | Phenolic Insulator              |         |         | X       |
| 3           | 8201-056  | Blower Control                  | X       | X       |         |
| 3           | 8201-032  | Blower Relay                    |         |         | X       |
| 4           | 8407-035  | Transformer                     | X       | X       |         |
| 4           | 8407-042  | Transformer                     |         |         | X       |
| 5           | 8401-027  | Compressor Contactor            |         | X       |         |
| 5           | 8401-002  | Compressor Contactor            |         |         | X       |
| 5           | 8401-032  | Compressor Contactor            | X       |         |         |
| 6           | 8552-005  | Outdoor Motor Capacitor         |         | X       | X       |
| 6           | 8552-058  | Compressor Capacitor            | X       |         |         |
| 7           | 135-130   | Wire Shield                     | X       | X       | X       |
| 8           | 8611-006  | Ground Terminal                 | X       | X       | X       |
| 9           | 3000-1167 | 6 Pin Connector                 | X       | X       | X       |
| 10          | 8201-086  | Low Ambient Bypass Relay ①      | X       | X       | X       |
| 11          | 8201-065  | Low Pressure Bypass TDR ①       | X       | X       | X       |
| 12          | 8201-102  | Heat Pump Control Board         | X       | X       | X       |
| 13          | 117X229   | Control Panel                   | X       | X       | X       |
| 14          | 8551-004  | Start Device                    | X       |         |         |
| 15          | 8408-037  | Return Air Thermostat           | X       | X       | X       |
| 16          | 117X139   | Low Voltage Box                 | X       | X       | X       |
| 17          | 8201-085  | Phase Monitor                   |         | X       | X       |
| 18          | 8607-017  | Terminal Block ①                | X       | X       | X       |
| 19          | 8201-092  | Dehumidification Logic Board    | X       | X       | X       |
| 20          | 8201-032  | Outdoor Fan Relay               |         |         | X       |
| NS          | 4096-127  | Wiring Diagram                  | X       |         |         |
| NS          | 4096-230  | Wiring Diagram                  |         | X       |         |
| NS          | 4096-329  | Wiring Diagram                  |         |         | X       |
| NS          | 8615-041  | Circuit Breaker 60A 2 Pole (0Z) | X       |         |         |
| NS          | 8615-044  | Circuit Breaker 45A 3 Pole (0Z) |         | X       |         |
| NS          | 8615-067  | Toggle Disconnect               |         |         | X       |

NS – Not Shown

① – Optional

## BLOWER ASSEMBLY



SEXP-178

| Drawing No. | Part No. | Description            | S900-283 | S900-284 |
|-------------|----------|------------------------|----------|----------|
| 1           | 5152-090 | 9 Inch Wheel (CW)      | X        | X        |
| 2           | 5152-091 | 9 Inch Wheel (CCW)     | X        | X        |
| 3           | 8106-030 | Blower Motor (230/208) | X        |          |
| 3           | 8106-025 | Blower Motor (460)     |          | X        |
| 4           | 8552-005 | Capacitor              | X        | X        |
| 5           | 8200-040 | Motor Mount            | X        | X        |
| 6           | 5451-011 | Grommets               | 6        | 6        |
| 7           | 105-881  | Back Brace             | X        | X        |
| 8           | 105-880  | Side Angle             | 4        | 4        |
| 9           | 103-389  | Front Brace            | X        | X        |
| 10          | 151-101  | Blower Housing         | 2        | 2        |
| 11          | 144-166  | Diffuser               | 2        | 2        |