Shipping and Packing List

53W44, 45, 46, & 47
Package 1 of 1 contains:
1- Power exhaust assembly
1- Bag assembly containing:
   #10 Sheet metal screws
   #12 Sheet metal screws
   1-K65 exhaust fan relay
   3-Harnesses

74W21, 22, 23, 24
Package 1 of 1 contains:
1- Power exhaust assembly
1- Harness (3 in 74W24 kits)
1- K65/K123 Relay (2 in 74W21, 22, 23, 24 kits)
1- Bag assembly containing:
   Self tapping screws
   Thread forming screws
   1-Foam insulating tape
74W21 Kits Only:
2-Fuse holders
2-Fuses
1-Fuse block bracket

Check packaging for shipping damage. Contact the last carrier immediately if any shipping damage is found.

Application

Power exhaust fans are applied to units equipped with an economizer in downflow air discharge. The power exhaust fan option cannot be used in horizontal air discharge applications. See table 1.

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer or equivalent, service agency, or the gas supplier.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Voltage</th>
<th>Part #</th>
<th>CAT. #</th>
</tr>
</thead>
<tbody>
<tr>
<td>092-152</td>
<td>Y (208/230)</td>
<td>603365-01</td>
<td>53W44</td>
</tr>
<tr>
<td>092-152</td>
<td>G (460)</td>
<td>603365-02</td>
<td>53W45</td>
</tr>
<tr>
<td>092-152</td>
<td>J (575)</td>
<td>603365-03</td>
<td>53W46</td>
</tr>
<tr>
<td>092-152</td>
<td>M (380/420)</td>
<td>603365-04</td>
<td>53W47</td>
</tr>
<tr>
<td>242, 300H, 360</td>
<td>Y (208/230)</td>
<td>606210-01</td>
<td>74W21</td>
</tr>
<tr>
<td>242, 300H, 360</td>
<td>G (460)</td>
<td>606210-02</td>
<td>74W22</td>
</tr>
<tr>
<td>242, 300H, 360</td>
<td>J (575)</td>
<td>606210-03</td>
<td>74W23</td>
</tr>
<tr>
<td>242, 300H, 360</td>
<td>M (208/420)</td>
<td>606210-04</td>
<td>74W24</td>
</tr>
</tbody>
</table>

Locate all other accessories to be installed. Install accessories in the following order:
1- Outdoor Air or Economizer Dampers
2- Sensors
3- Power Exhaust Fans
4- Gravity Exhaust Dampers
5- Exhaust Hoods
6- Intake Hoods
Wiring

IMPORTANT -

53W44, 45, 46 & 47 Kits
Discard harness labeled 603541-01 when installing the exhaust fan in KG/KC/KH 092-150 units.
Discard harness labeled 600771-01 when installing the exhaust fan in M-volt CE units.

74W21 Kit
Discard harness labeled 606666-01 and one relay when installing single-stage exhaust fans.
Discard harness labeled 607048-01 when installing dual-stage exhaust fans.

74W22 & 23 Kits
Discard harness labeled 606665-01 and one relay when installing single-stage exhaust fans.
Discard harness labeled 607049-01 when installing dual-stage exhaust fans.

74W24 Kit
Discard harness labeled 606665-01 and one relay when installing single-stage exhaust fans.
Discard harness labeled 607049-01 when installing the exhaust fan in M-volt CE units.
Discard harnesses labeled 607049-01 and 607050-01 when installing dual-stage exhaust fans.

1- Install K65 (and K231 on dual-stage exhaust fans) exhaust fan relay(s) in unit control box using screws provided. Refer to figure shown in table 2.

2- 242 - 360 Y-Volt Units Only -
   Install F6 fuse block near F10 fuse block. Insert fuses provided. See figure 4.

3- Route wire harnesses; refer to figure shown in table 2.

4- Harness wires are hot-stamped for identification. Make wiring connections as follows:

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>LG/LC 092-152 units - std. SCCR</td>
</tr>
<tr>
<td>9</td>
<td>LG/LC 092-152 units - high SCCR</td>
</tr>
<tr>
<td>10</td>
<td>KG/KC/KH 092-150 units</td>
</tr>
<tr>
<td>11</td>
<td>LGH/LCH242-360 G &amp; J volt units</td>
</tr>
<tr>
<td>12</td>
<td>LGH/LCH242-360 Y volt units</td>
</tr>
<tr>
<td>13</td>
<td>LGH/LCH242-360 M volt CE units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit</th>
<th>Voltage</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGH/LCH 092-152</td>
<td>All 1</td>
<td>5</td>
</tr>
<tr>
<td>KG/KC/KH 092-150</td>
<td>All 1</td>
<td>7</td>
</tr>
<tr>
<td>242-360</td>
<td>G, J, M</td>
<td>2</td>
</tr>
<tr>
<td>360</td>
<td>Y</td>
<td>4</td>
</tr>
<tr>
<td>LGH/LCH/KG/KC/KH 092-150 CE</td>
<td>M-CE</td>
<td>6</td>
</tr>
<tr>
<td>LGH/LCH 242-360 CE</td>
<td>M-CE</td>
<td>3</td>
</tr>
</tbody>
</table>

TABLE 2

<table>
<thead>
<tr>
<th>Unit</th>
<th>Voltage</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGH/LCH 092-152</td>
<td>All 1</td>
<td>5</td>
</tr>
<tr>
<td>KG/KC/KH 092-150</td>
<td>All 1</td>
<td>7</td>
</tr>
<tr>
<td>242-360</td>
<td>G, J, M</td>
<td>2</td>
</tr>
<tr>
<td>360</td>
<td>Y</td>
<td>4</td>
</tr>
<tr>
<td>LGH/LCH/KG/KC/KH 092-150 CE</td>
<td>M-CE</td>
<td>6</td>
</tr>
<tr>
<td>LGH/LCH 242-360 CE</td>
<td>M-CE</td>
<td>3</td>
</tr>
</tbody>
</table>

**INSTALL K65 - 092-150 UNITS**

**FIGURE 1**

K65 RELAY

CONTROL AREA

FIGURE 1
INSTALL K65 - 242-360 G, J, M VOLT NON-CE UNITS

FIGURE 2

LOCATE WIRES MARKED K65-A, B, AND CONNECT TO K65 RELAY

CONNECT P24/J24

INSTALL K65 - 242-360 M VOLT CE UNITS

FIGURE 3

LOCATE WIRES MARKED K65-A, B, AND CONNECT TO K65 RELAY

CONNECT P24/J24

DUAL-STAGE FANS ONLY - LOCATE WIRES MARKED K231-A, B, AND CONNECT TO K231 RELAY

DUAL-STAGE FANS ONLY

K65 POWER EXHAUST HARNESS
FIGURE 4

INSTALL K65 / K231 - 360 Y VOLT UNITS

CONNECT P24/J24

LOCATE WIRES MARKED K65-A, B AND CONNECT TO K65 RELAY

DUAL-STAGE FANS ONLY

LOCATE WIRES MARKED K231-A, B AND CONNECT TO K231 RELAY

K65 / K231 POWER EXHAUST HARNESS

FIGURE 5

WIRE ROUTING FOR LGH/LCH 092-152 NON-CE UNITS

SECURE HARNESS USING WIRE TIE LOCATED UNDER PANEL

600771-01

603541-01 (DISCARD FOR KG/KC/KH UNITS)

TO J18

Page 4
WIRE ROUTING FOR LGH/LCH/KG/KC/KH 092-152 M VOLT CE UNITS

LOCATE WIRES MARKED K65-A, B AND CONNECT TO K65 RELAY IN KG/KC/KH UNITS

605301-01

J265 ON A55 UNIT CONTROLLER ONLY

SECURE HARNESS USING WIRE TIE LOCATED UNDER PANEL

FIGURE 6
WIRE ROUTING FOR KG/KC/KH 092-150 UNITS (NON-CE UNITS)

LOCATE WIRES MARKED K65-A, B AND CONNECT TO K65 RELAY IN KG/KC/KH UNITS

SECURE HARNESS USING WIRE TIE LOCATED UNDER PANEL

FIGURE 7

LG/LC 092-152 WIRING - STANDARD SCCR UNITS

TO POWER EXHAUST FANS

K2 COMPRESSOR CONTACTOR

MULTI-WIRE HARNESS

K65 EXHAUST FAN RELAY

TWO-WIRE HARNESS

FIGURE 8

Page 6
LGH/LCH 242-360 WIRING
EXCLUDING 242-360 Y-VOLT UNITS

K1 COMPRESSOR CONTACTOR

K65 EXHAUST FAN RELAY

K231 EXHAUST FAN 2 RELAY

ALL C BOX UNITS EXCEPT LG/LC 242/360 Y-VOLT

J24 P24

TO POWER EXHAUST FANS

Wires provided in every unit; connect to K65 and K231.

J265E P265

A55 UNIT CONTROLLER

24V COMMON

Note:
300H & 360 - Units Equipped With VFD & Automatic Bypass Controls: Connect to J/P291-7.
Note:
300H & 360 - Units Equipped With VFD & Automatic Bypass Controls:
Connect to J/P291-7.
FIGURE 13

LGH/LCH 242-360 WIRING
M-VOLT CE UNITS

Wires provided in every unit; connect to K65 and K231.

Note:
300H & 360 - Units Equipped With VFD & Automatic Bypass Controls: Connect to J/P291-7.
Installation

092/152 Units (refer to figure 14)

1- Disconnect electrical power to unit.

2- Remove both upper and lower accessory panels from unit. Retain screws for future use. Also remove optional gravity exhaust damper if unit contains one.

3- Reach through fan orifice and connect power exhaust fan P18 plug to unit J18 jack. J18 is located on the wall between the economizer and compressor section. See figure 15.

242-360 Units

1- Disconnect electrical power to unit.

2- Remove both upper and lower accessory panels from unit. Retain screws for future use. Also remove optional gravity exhaust damper if unit contains one.

NOTE - CONNECT J18/P18 JACK PLUGS BEFORE INSTALLING EXHAUST FAN

NOTE - Apply foam insulating tape to back of flanged edges before installing exhaust fan and gravity exhaust dampers.
4- Apply foam insulating tape on the back of the flanged edges of the fan assembly.
5- Reach through fan orifice and connect power exhaust fan P18 plug to unit J18 jack. J18 is located on the left side underneath the fresh/exhaust air divider panel. See figure 16.

All Units
1- Lift the fan assembly into the opening and insert the top side first. Align the top of the assembly inside the flange on the division panel. Secure the bottom of the assembly to the unit with screws provided. See figure 14 for 092/152 units and figure 16 for 242/360 units.
2- Install gravity exhaust damper according to instructions provided with damper.

**Prodigy 2.0 M3 Unit Controller Setup**

The M3 Unit Controller has power exhaust fan control options that include support for both single-stage and two-stage equipment. The power exhaust is controlled based on the damper position.

Go to SETUP / INSTALL and set Configuration ID 1, position 3 to (S = Single Stage or D = Dual Stage).

Go to SETUP / INSTALL and set Configuration ID 1, position 4 to A = Damper Position

**Operation**

Power exhaust fans are energized when economizer dampers reach 50% (default).

**Power Exhaust Setpoint Adjustment**

*LG/LC Units -*

Refer to the Unit Controller manual provided with each rooftop unit.

*KG/KC/KH Units -*

Locate the A6 enthalpy control in the control area for 092-150 units and the economizer side panel for 242-300 units. The EXH SET potentiometer is factory-set at approximately 50% of the dial range. See figure 17. Power exhaust fans will be energized 30 seconds after dampers are 50% open. Adjust the EXH SET potentiometer higher (clockwise toward 10V) to energize fans when dampers are further open. Adjust the EXH SET potentiometer lower (counterclockwise toward 2V) to energize fans when dampers are further closed. (Thirty-second delay allows dampers to partially open before exhaust fan starts.)

![FIGURE 17](image-url)