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Supersedes 8/2025

FLOAT SWITCH KIT

INSTALLATION INSTRUCTIONS FOR FLOAT SWITCH KIT (602799-08; 21Z07) USED WITH LG/LC/LH/LD/SG/SC/SH/SD 024-360 UNITS

⚠WARNING

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

⚠CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal in jury. Take care while handling this equipment and wear gloves and protective clothing.

Shipping and Packing List

Package 1 of 1 contains:

1- Overflow (float) switch (S149)

3- Mounting brackets

1- Wire harness

2- Screws #10-32 X 1/2”

2- Screws #8-32 X 1/2”

10- Wire ties

Application

The overflow switch is used to interrupt cooling operation when excessive condensate collects in the drain pan.

M2 Unit Controller

The N.C. overflow switch is connected to the Unit Controller (A55) through DI-3. When the switch opens, the Unit Controller will shut off the unit. After a five-minute time out, the Unit Controller will verify the overflow switch position and restart the unit (if the switch has closed). The Unit Controller has a three-strike counter before the unit locks out. This means the Unit Controller will allow the overflow switch to open three times per thermostat demand. If the unit locks out, a reset of the Unit Controller is required after the switch has closed to restore unit operation.

M3 Unit Controller

The N.C overflow switch is connected to the M3 Unit Controller through DI-2 or DI-3.

If the overflow switch is the only switch installed on the general purpose programmable input, then M3 Unit Controller will disable compressor cooling operation when the overflow switch is detected as open.

If the programmable digital input is shared with other protection switches, the M3 Unit Controller will shutdown the whole unit operation when the overflow switch is detected as open.

After a five-minute time out, the M3 Unit Controller will verify the overflow switch position and resume operation (servicing the demands) if the switch has closed.

The M3 Unit Controller has no 3-strike counter.

M4 Unit Controller

The N.C. overflow switch is connected to the M4 Unit Controller through J387-5. The wiring harness connecting M4 Unit Controller A55 to float switch S149 is factory installed with jumper S149.JMP. Remove and discard jumper S149.JMP and connect S149 float switch.

The M4 Unit Controller has no 3-strike counter.

Float Assembly

The float switch assembly is shipped for normally closed operation.

Installation

1 - Disconnect all electrical power to unit and open control access door.

2 - Remove panel covering the condensate drain pipe.

3 - LG/LC/LH/LD Units -

Secure float switch to bracket. See FIGURE 1. Secure bracket to drain pan. See FIGURE 2 for plastic drain pans and FIGURE 3 for stainless steel drain pans. Use #10 screws to secure assembly. Discard the other two brackets provided in kit.

SG/SC/SH/SD Units -

Secure float switch to C-bracket which doesn’t have a square cut-out; secure with locknut. Install the assembly as shown in FIGURE 4. Make sure square bracket is on the inside of the drain pan and C-bracket is on the outside. Secure with #8 screws. Discard the bracket with the square cut-out.

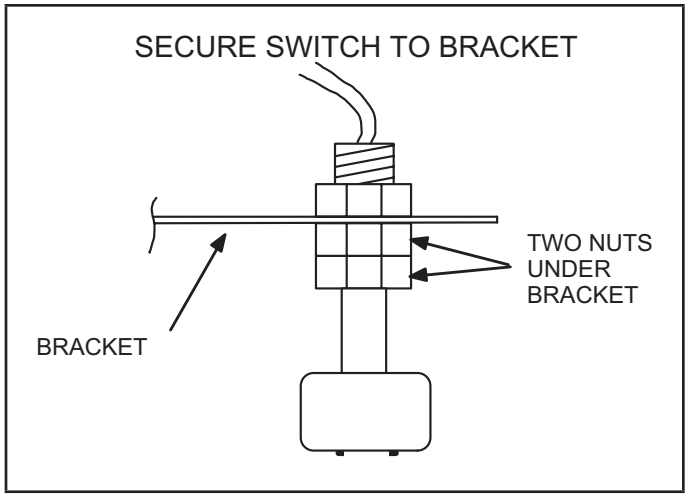


FIGURE 1

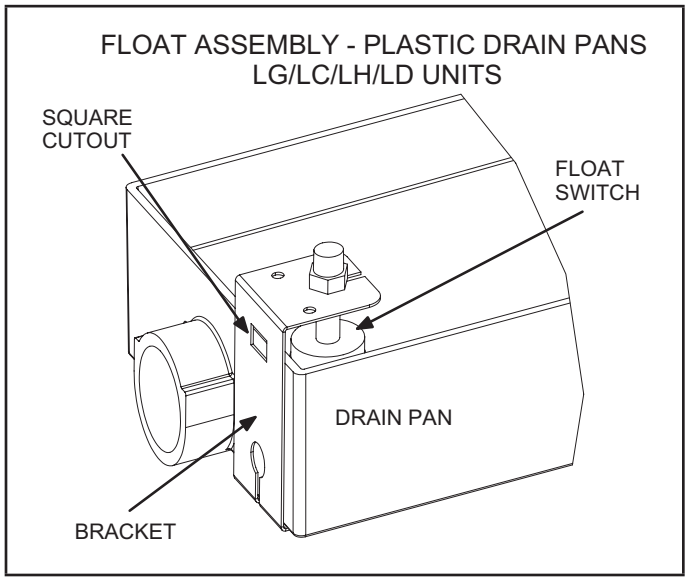


FIGURE 2

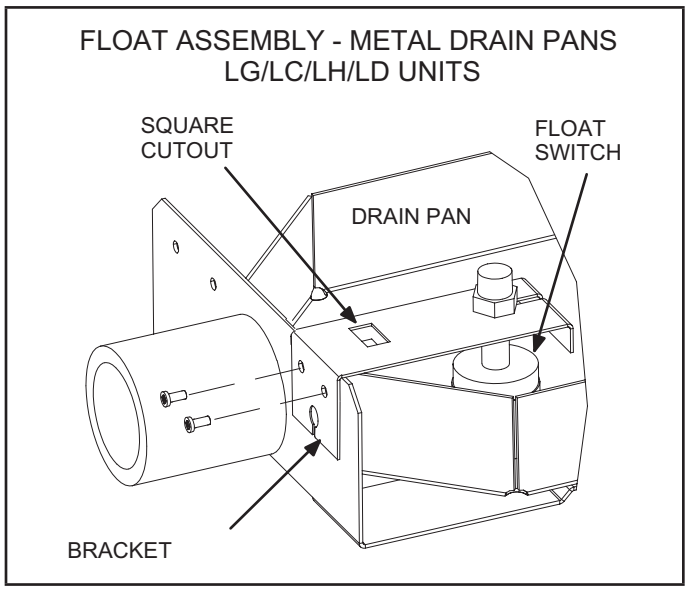


FIGURE 3

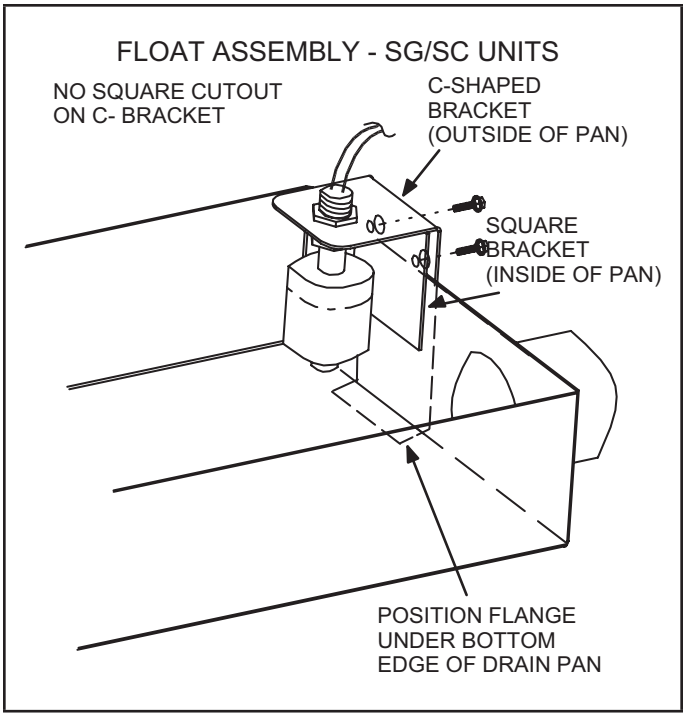


FIGURE 4

IMPORTANT - LG/LC/LH/LD 024-152 UNITS ONLY -

When condensate drainage is required through the back of the unit: remove drain pan, install float switch assembly on the left side of the drain pan nipple and install with switch oriented toward the back of the unit. See figure 5. Route wire harness between the drain pan and heat section.

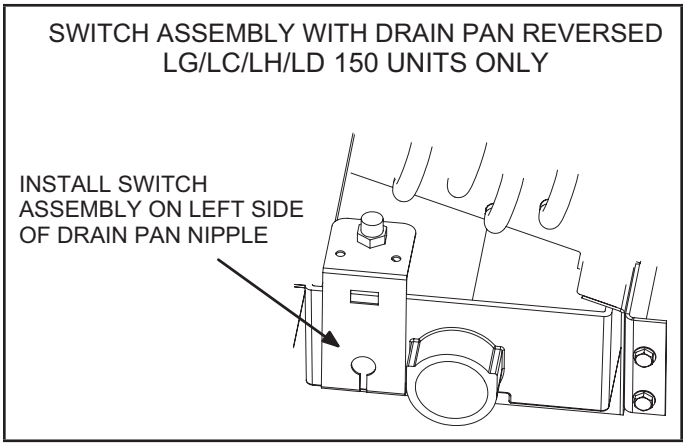


FIGURE 5

4 - *For units installed with M2 & M3 Unit Controllers:*

Connect wire harness to Unit Controller terminals DI-2 or 3 and R.

For units installed with M4 Unit Controllers:

The S149 harness is factory installed. It connects to J387-5 on A55 and routes to the float switch location. It comes with normally closed jumper S149.JMP factory installed. See FIGURE 10 and FIGURE 11 for reference.

5 - *For units installed with M2 & M3 Unit Controllers:*

Route the other end of the harness to the float switch and secure with wire ties. See FIGURE 8 for LG/LC/LH/LD 072 units, FIGURE 9 for LG/LC/LH/LD 092-150 units, FIGURE 12 for LG/LC/LH/LD 156-360 & SG/SC/SH/SD 180-240, FIGURE 13 for SG/SC/SH/SD 036/060 and FIGURE 14 for SG/SC/SH/SD 092-120 units.

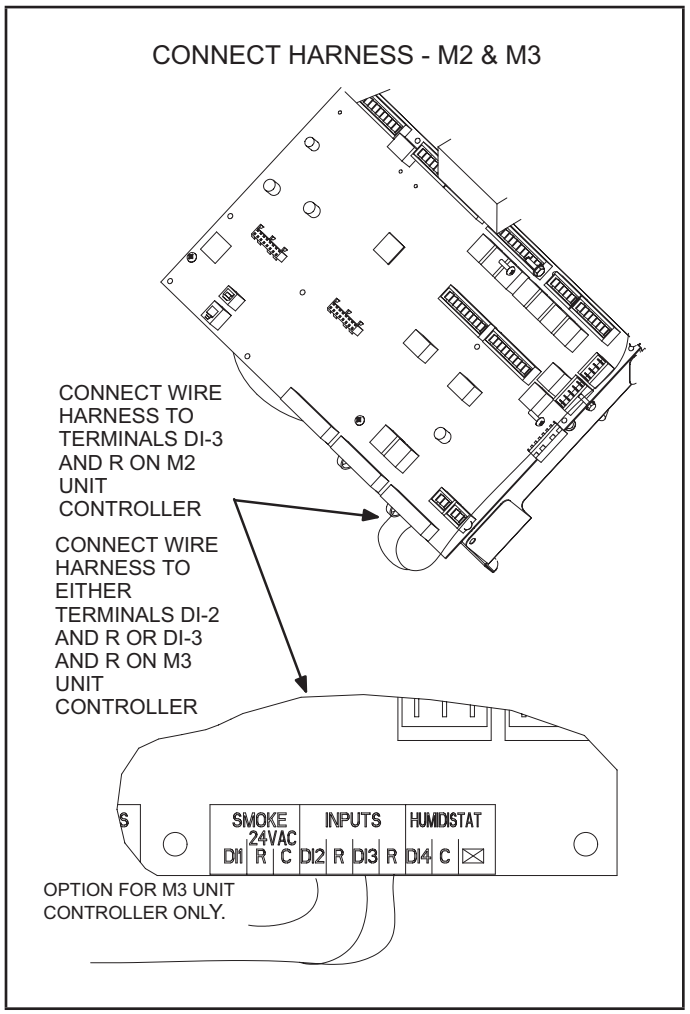


FIGURE 6

6 - Connect float switch to wire harness. For units with M4 unit controller installed, discard jumper S149. JMP, then connect float switch to wire harness. Bundle excess wiring using wire ties provided and secure to insulated suction line manifold above drain pan. On SG/SC/SH/SD units with an M4, the suction line may not be above the drain pan. Secure the wire harness to the angle-support above the drain pan.

7 - Replace panel covering condensate drain pan.

8 - Restore power to unit.

Configure Unit Controller

IMPORTANT - Make sure Unit Controller uses V7.05.01 (or later) and the display uses V1.06.05 (or later) software. Use the Unit Controller Installation and Setup Guide to update software.

1 - Configure the Unit Controller for the Overflow switch as follows:

M2 UNIT CONTROLLER SETTINGS>INSTALL>FLOAT SW

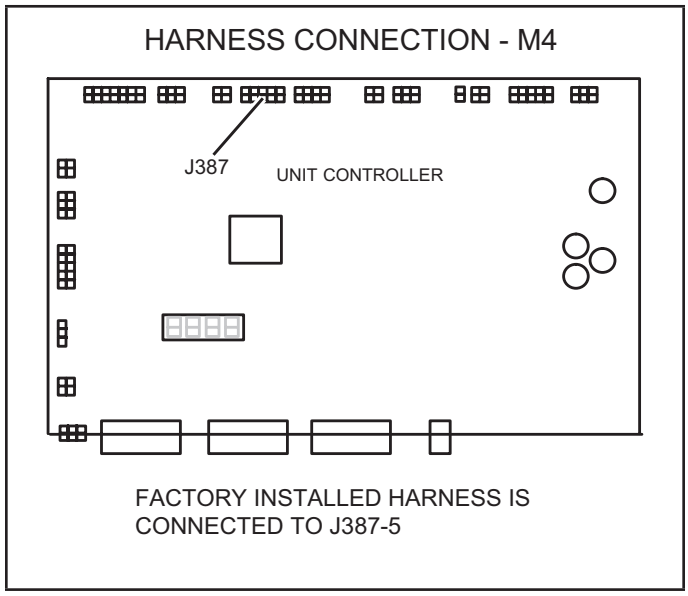


FIGURE 7

M3 UNIT CONTROLLER

Go to SETUP / INSTALL and navigage through the various setup questions until Configuration ID 2 appears. Position three needs to be set to 2 when connected to DI-2 and 3 when connected to DI-3.

M4 UNIT CONTROLLER

Go to RTU MENU > SETUP INSTALL and navigate through the various setup questions until Configuration ID 2 appears. Select Y when float switch is installed and N when switch is not installed.

2 - Close all access doors.

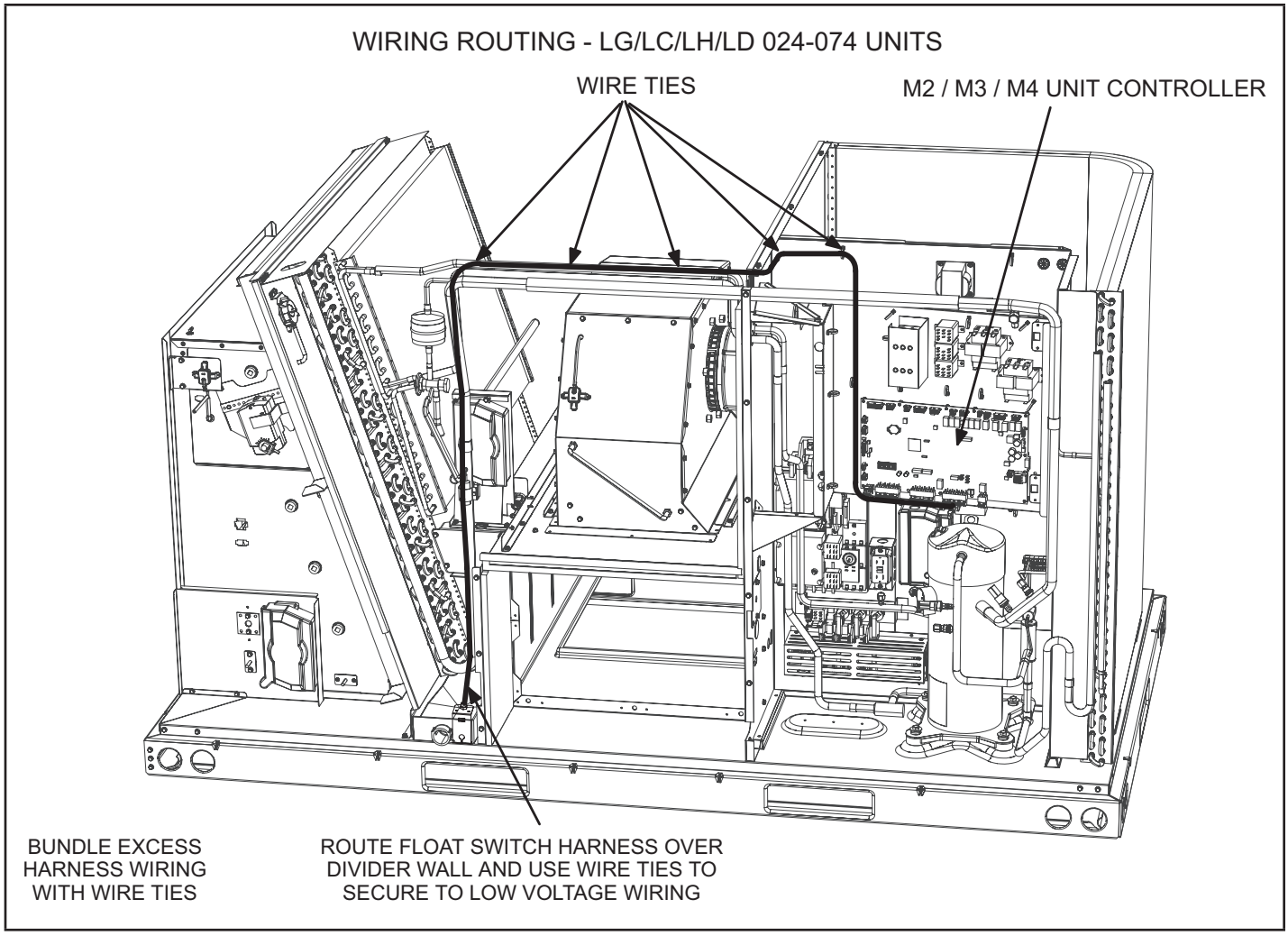

WIRING ROUTING - LG/LC/LH/LD 024-074 UNITS
WIRE TIES
M2 / M3 / M4 UNIT CONTROLLER
BUNDLE EXCESS HARNESS WIRING WITH WIRE TIES
ROUTE FLOAT SWITCH HARNESS OVER DIVIDER WALL AND USE WIRE TIES TO SECURE TO LOW VOLTAGE WIRING

FIGURE 8

WIRING ROUTING - LG/LC/LH/LD 092-150 UNITS
WITH M2 OR M3 UNIT CONTROLLERS

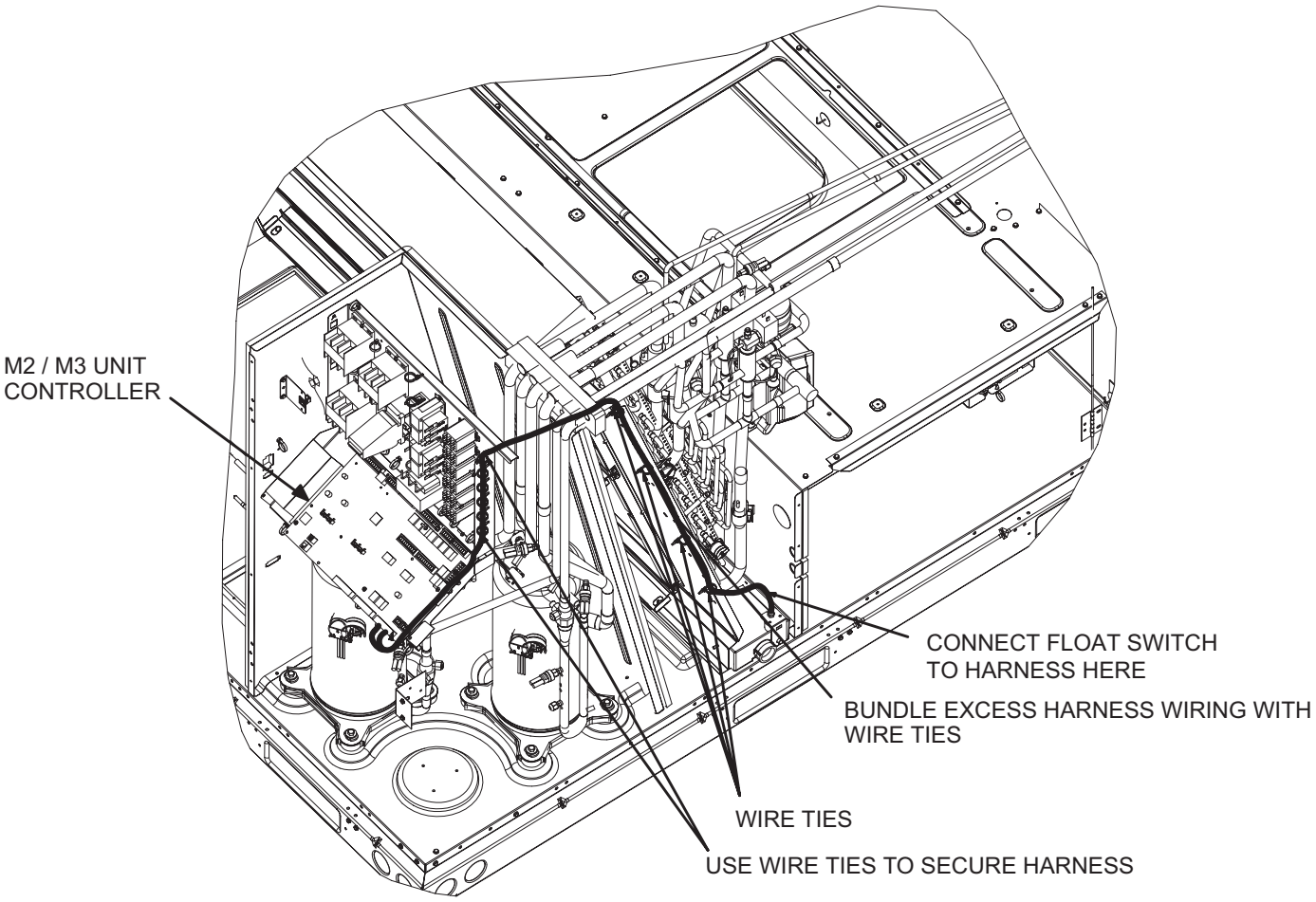


FIGURE 9

WIRING ROUTING – LG/LC/LH/LD 078-152 UNITS
WITH M4 UNIT CONTROLLERS INSTALLED VERTICALLY

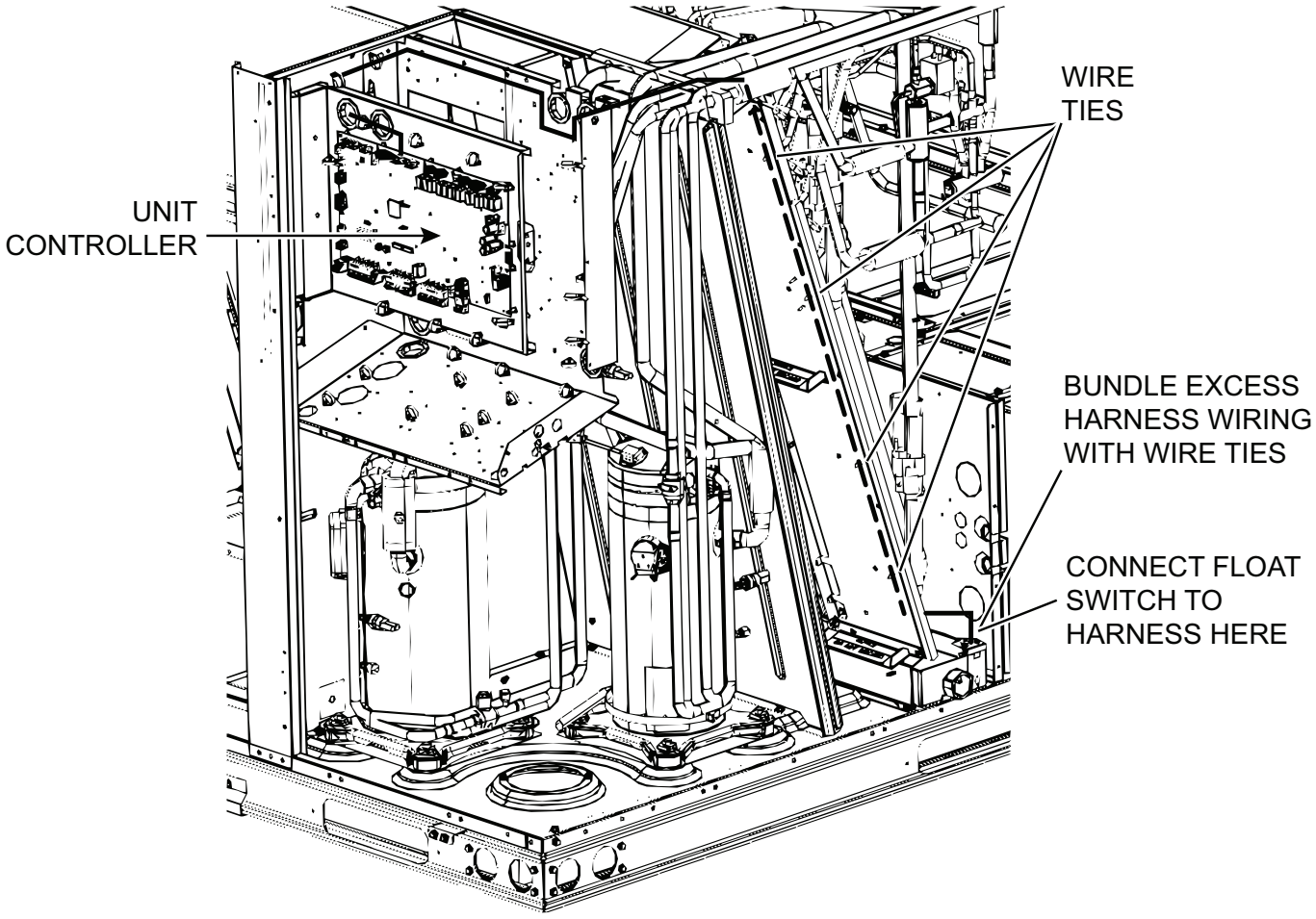


FIGURE 10

WIRING ROUTING – LG/LC/LH/LD 078-152 UNITS
WITH M4 UNIT CONTROLLERS INSTALLED HORIZNTALLY

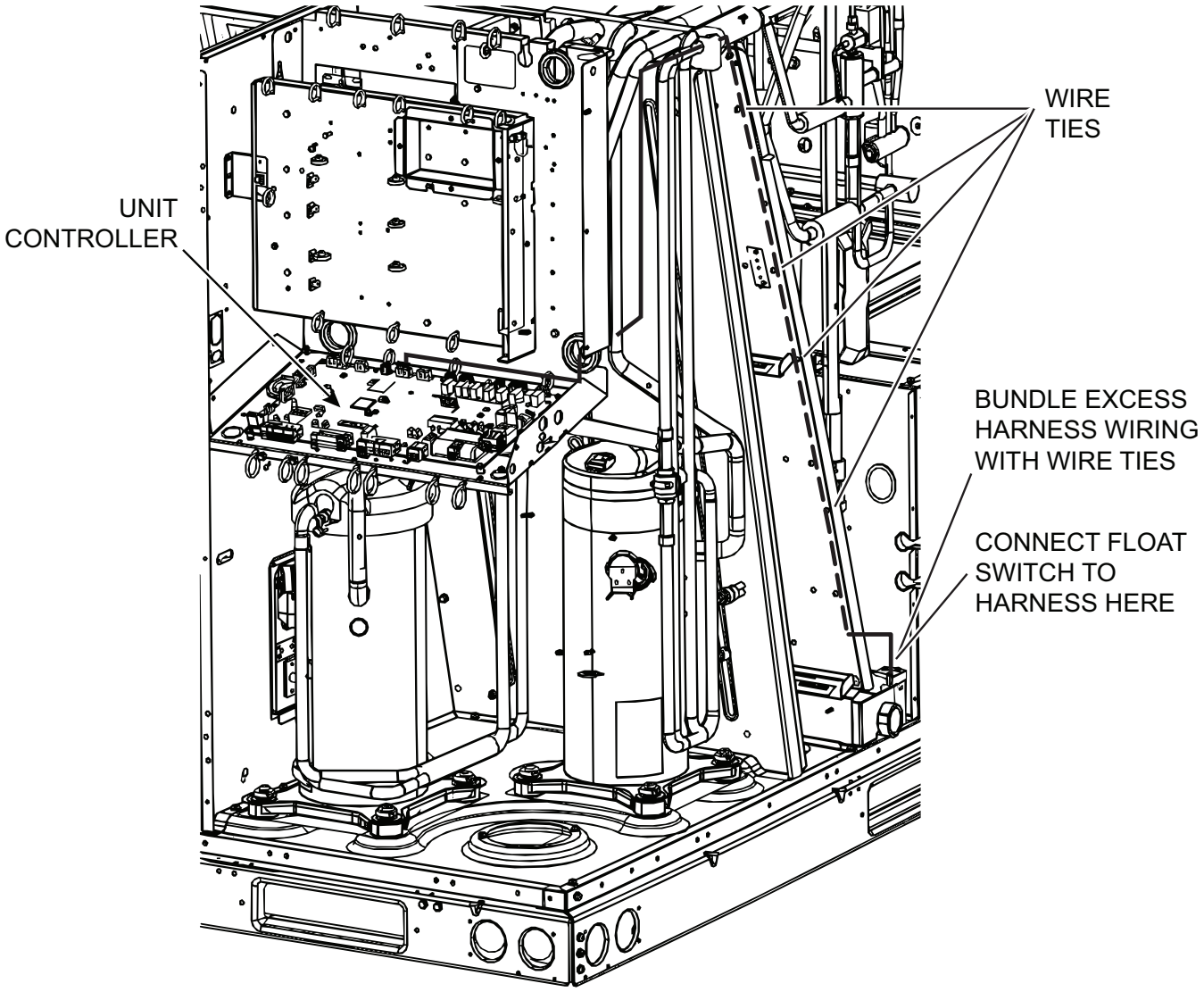


FIGURE 11

WIRING ROUTING - LG/LC/LH/LD 156-360 & SG/SC 240 UNITS

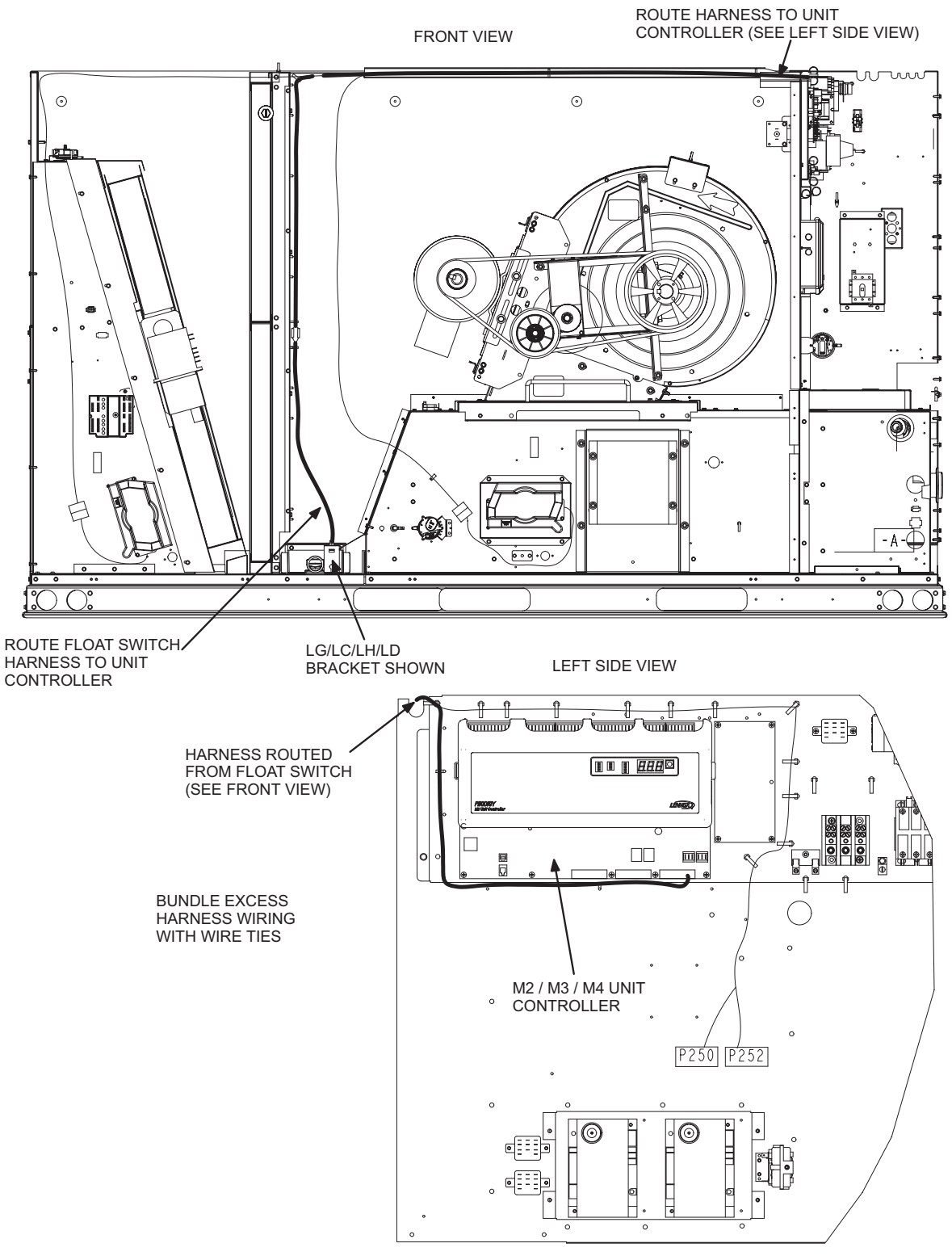


FIGURE 12

WIRING ROUTING - SG/SC 036/060 UNITS

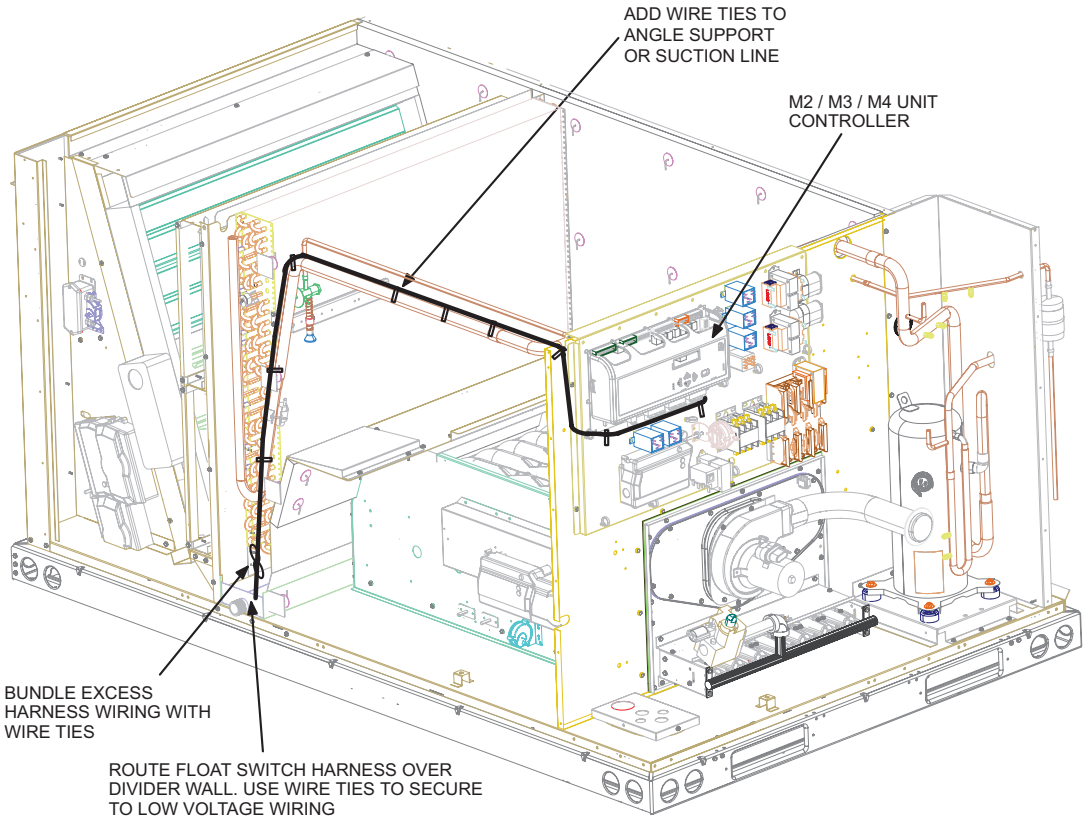


FIGURE 13

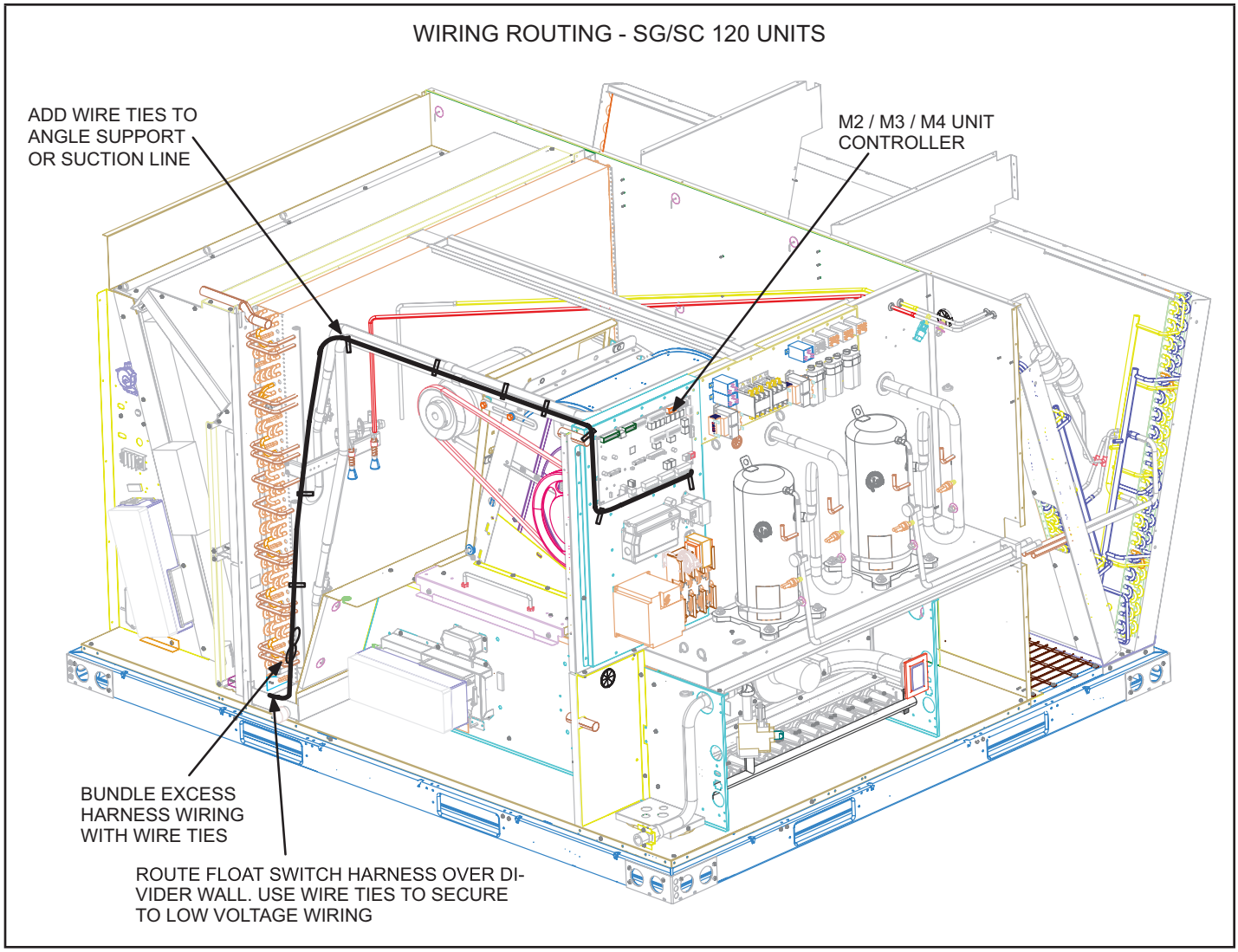

WIRING ROUTING - SG/SC 120 UNITS
ADD WIRE TIES TO ANGLE SUPPORT OR SUCTION LINE
M2 / M3 / M4 UNIT CONTROLLER
BUNDLE EXCESS HARNESS WIRING WITH WIRE TIES
ROUTE FLOAT SWITCH HARNESS OVER DIVIDER WALL. USE WIRE TIES TO SECURE TO LOW VOLTAGE WIRING

FIGURE 14