

**DPOFSK OVERFLOW SWITCH (FOR 3 - 25 TON)
LIGHT COMMERCIAL ROOFTOP UNITS
INSTALLATION INSTRUCTIONS
KIT INSTRUCTIONS**

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⚠ WARNING

Only personnel that have been trained to install, adjust, service or repair (hereinafter, "service") the equipment specified in this manual should service the equipment. The manufacturer will not be responsible for any injury or property damage arising from improper service or service procedures. If you service this unit, you assume responsibility for any injury or property damage which may result. In addition, in jurisdictions that require one or more licenses to service the equipment specified in this manual, only licensed personnel should service the equipment. Improper installation, adjustment, servicing or repair of the equipment specified in this manual, or attempting to install, adjust, service or repair the equipment specified in this manual without proper training may result in product damage, property damage, personal injury or death.

obstruction. Install the unit away from all building exhausts to inhibit ingestion of exhaust air into the unit's fresh-air intake.

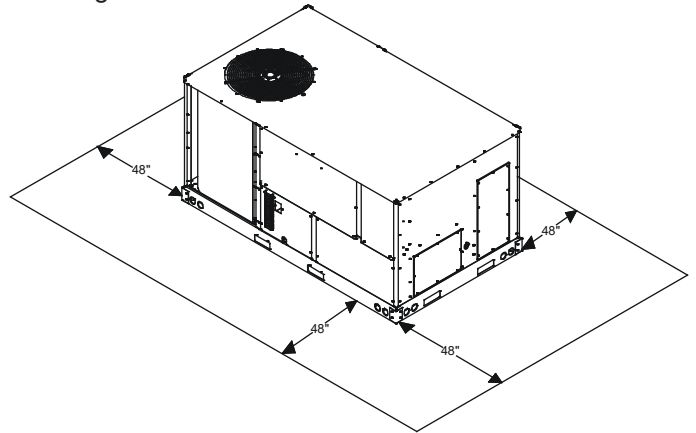


Figure 1

Attention Installing Personnel

As a professional installer, you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair, it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is your responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

Description

The **AG-3180E** float switch kit reduces the potential for water damage, part failure and microbial buildup due to water backup in the condensation pan.

A non-illuminated LED light indicates normal operation of the water flow in condensation pan. If there is a water backup, and the micro-sensor detects a constant 60 seconds of water, the float switch will trip and shut the unit off. The LED light will turn on. When the micro-sensor stays out of the water for about 60 seconds, the float switch and the unit will return to normal operation.

Clearance

Maintain an adequate clearance around the unit for safety, service, maintenance, and proper unit operation. Leave a clearance of 48" on all sides of the unit for possible compressor removal or service access, and to ensure proper ventilation and condenser airflow. Do not install the unit beneath any

Accessory Kit Number :	DPOFSK01	DPOFSK02	DPOFSK03
ITEM	QTY.	QTY.	QTY.
Electric Tie	4	4	4
Float Switch AG-3180E & Wire Harness	1	1	1
Installation Instructions	1	1	1
Cord Clip (PSA Backing)	4	1	1
Wiring Diagram	-	-	1
Screws	2	2	2
Bracket for mounting Micro Sensor	1	1	-

Parts Identification

AG-3180E SERIES BOX installed in the blower compartment



Micro Sensor installed on the mounting bracket.

Figure 2



For Small Units (3 - 6 Ton)

Small Chassis Float Switch Installation

To install the Float Switch, see the following instructions.

1. Disconnect all power to the unit.

WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

CAUTION

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICE PERSONNEL EXERCISE CAUTION.

2. Remove Panel 1 and Panel 2 from the unit.
DO NOT REMOVE ANY ADDITIONAL PANELS.

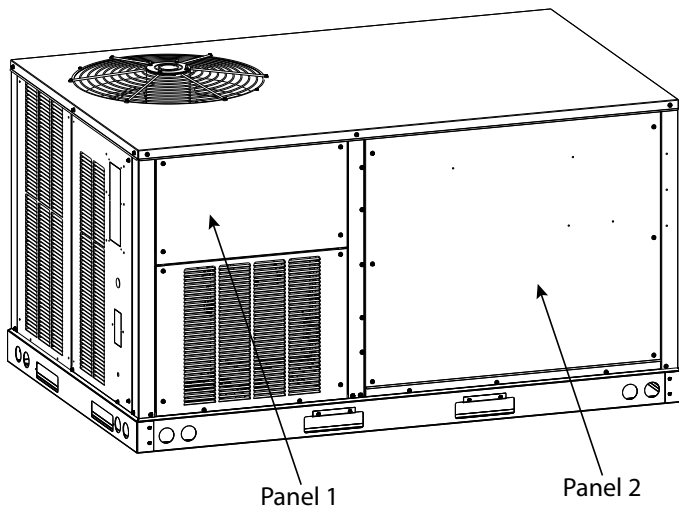


Figure 3

3. Disconnect the AG-3180E wiring harness at the 6 Pin connectors

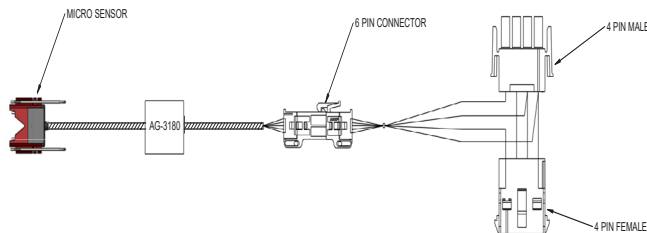


Figure 4

4. Locate the unit's emergency shutdown (ES) circuit inside the control box. If the unit has existing safety devices installed, reference sheet 9 for wiring instructions, otherwise, reference sheet 8.

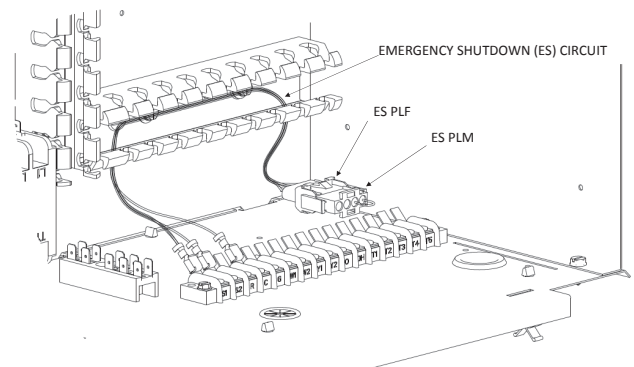


Figure 5

5. Place the AG-3180 inside the blower compartment and route the 6 pin connector into the control box and reconnect the 6 pin connectors that were disconnected in step 3.

6. Modify the mounting bracket as follows:
 3 Ton Units (036) - break away one tab.
 5 Ton Units (060) - do not break away any tabs.
 4&6 Ton Units (048 & 072) - break away two tabs.

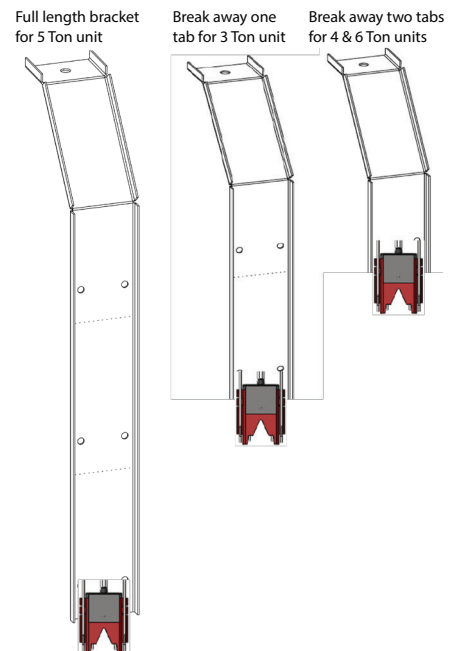


Figure 6

7. Attach the Micro Sensor to the mounting bracket by sliding the Micro Sensor onto the pair of holes on the mounting bracket. Adjust depth as needed.

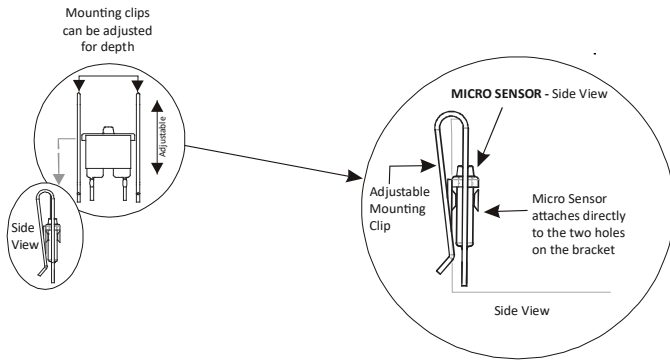


Figure 7

8. Carefully insert the bracket-micro sensor assembly into the gap between the blower deck and the evaporator coil and verify that the Micro Sensor reaches the drain pan. Remove the existing screw from blower deck at the mounting bracket installation location and use it to attach the mounting bracket to the blower deck. **Note:** The return panels and evaporator coil have been hidden for clarity.

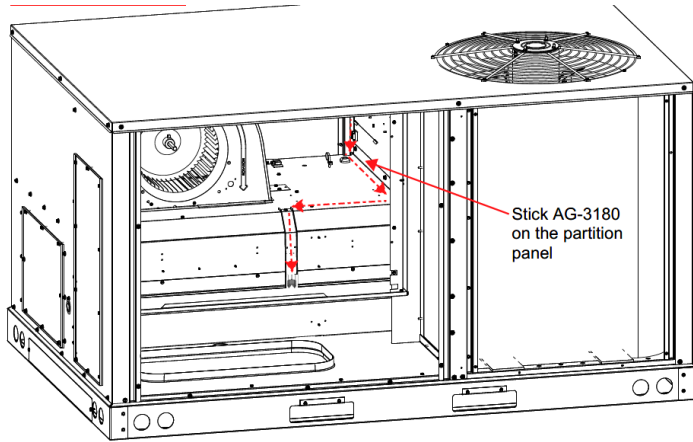


Figure 8

9. Once the bracket-micro sensor assembly is mounted, route wires as shown in Figure 8. Bundle and zip tie any excess wire, and use the supplied cord clip (PSA backing) to secure the wire to the blower deck and/or partition panel.
10. Remove the removable bracket from AG 3180E.



Removable bracket



Figure 9

11. Use the Adhesive strip to attach the bracket to the inside of the blower compartment and replace AG 3180E.



Adhesive Strip

Figure 10

12. Verify float switch is wired according to the wiring instructions on page 8 or 9.
13. When wiring and other instructions are completed, install Panel 1 and Panel 2 on the unit.

For Medium Units (7.5 - 12.5 Ton)

Parts Identification

NOTE: On units with a horizontal discharge configuration, the overflow switch must be installed before the Supply Air/Return Air ducts to allow for access to the drain pan panels.


Medium Chassis Float Switch Installation

To install the Float Switch, see the following instructions.

1. Disconnect all power to the unit.

 **WARNING**

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

 **CAUTION**

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICE PERSONNEL EXERCISE CAUTION.

2. Remove Panel 1, control box panel, and drain pan panel from the unit

DO NOT REMOVE ANY ADDITIONAL PANELS.

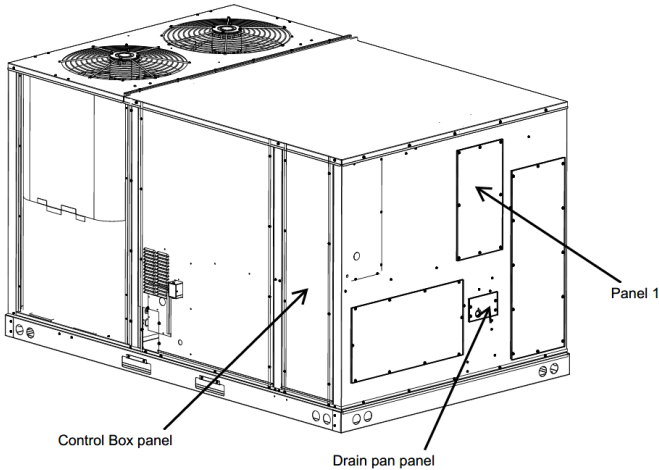


Figure 11

3. Disconnect the micro sensor at the 2-way connector.

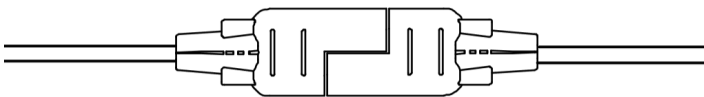


Figure 12

4. Locate the unit's emergency shutdown (ES) circuit inside the control box. If the unit has existing safety devices installed, reference sheet 9 for wiring instructions, otherwise, reference sheet 8.

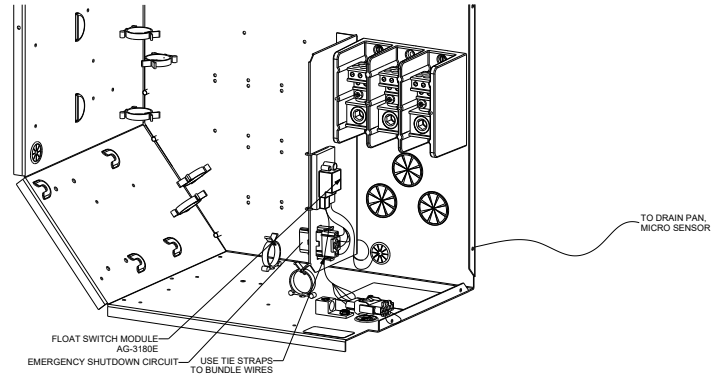


Figure 13

5. Place the AG-3180 inside the control box. Insert the 2 way connector from the module through the bottom bushing (1/2" grommet) towards the drain pan.

6. Remove the removable bracket from AG 3180E.



Removable bracket



Figure 14

7. Use the adhesive strip to attach the bracket to the voltage barrier plate as shown in Figure 13.



Adhesive Strip

Figure 15

- Fix the micro sensor on the mounting bracket by sliding the micro sensor onto the pair of holes on the bracket. Mount the bracket on the drain pan. Adjust depth of the sensor as needed.

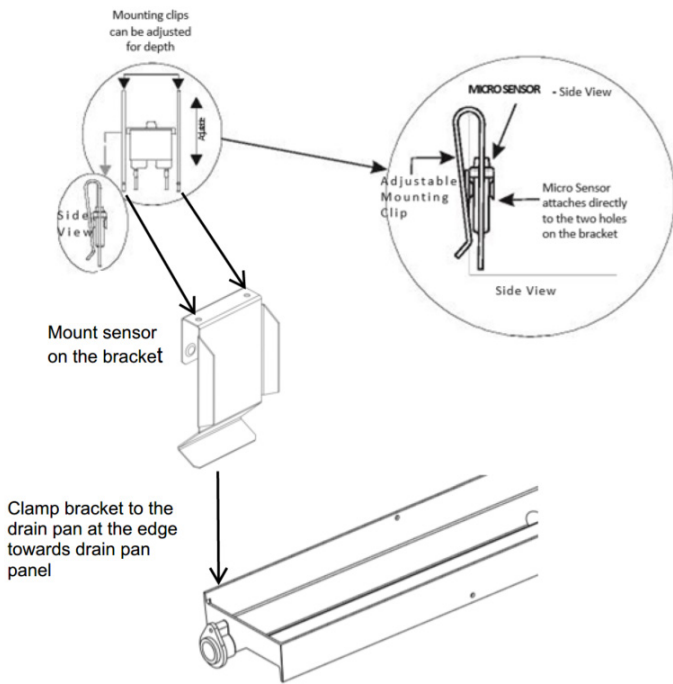


Figure 16

- Route the 2 way connector from the back of the control box through the bushing on the coil bottom support as shown in Figure 17. Attach the 2 way connectors outside of the drain pan. **Note:** The return panel, supply panel, and evaporator coil have been hidden for clarity

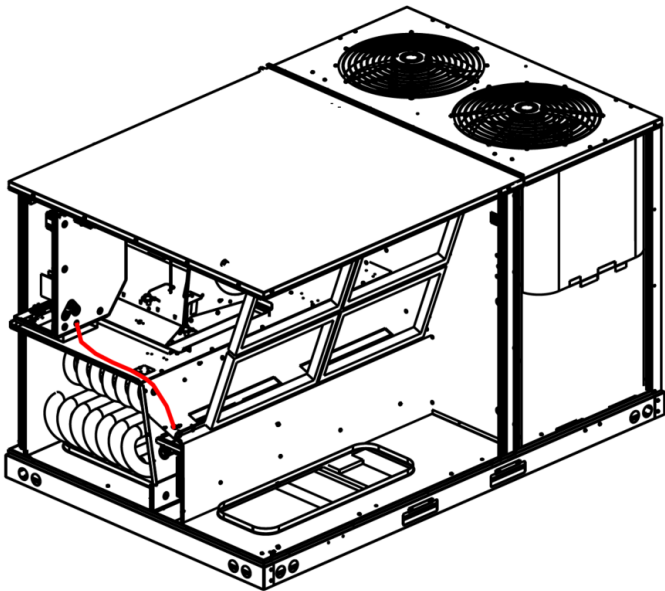


Figure 17

- Make sure to fix the 2 way connector on the left side of the drain pan using the cord clip for 7.5 ton, and on the drain pan support for 8.5-12.5 ton unit.

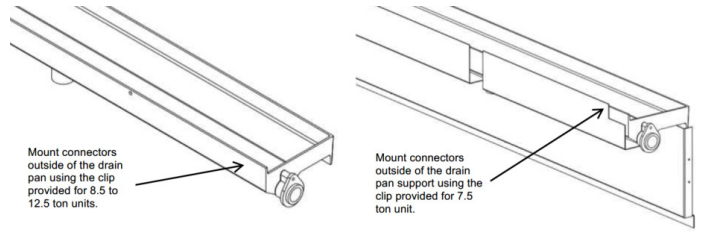


Figure 18

- Verify float switch is wired according to the wiring instructions on page 8 or 9.
- When wiring and other instructions are completed, install panel 1, control box panel, and the drain pan panel on the unit.

For Large Units (15 - 25 Ton)

Parts Identification

Large Chassis Float Switch Installation

To install the Float Switch, see the following instructions.

1. Disconnect all power to the unit.



WARNING

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CAUTION

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICE PERSONNEL EXERCISE CAUTION.

2. Remove the Control, Filter, Blower Coil and Blower panels from the unit.

DO NOT REMOVE ANY ADDITIONAL PANELS.

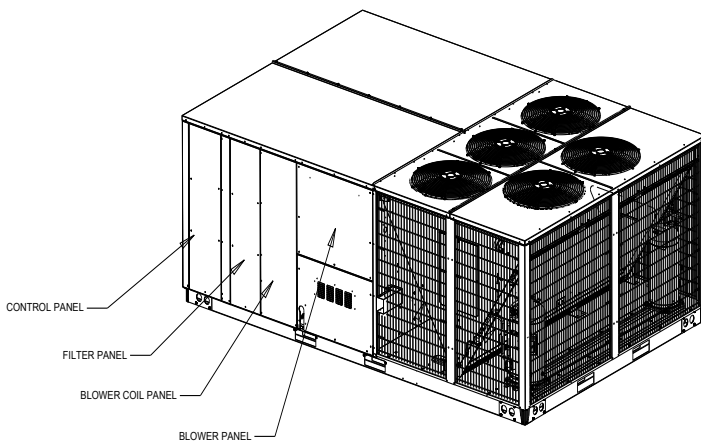


Figure 18

3. Locate the unit's emergency shutdown (ES) circuit inside the control box. If the unit has existing safety devices installed, reference sheet 9 for wiring instructions, otherwise, reference sheet 8.

4. Disconnect the micro sensor at the 2-way connector as shown in Figure 19



Figure 19

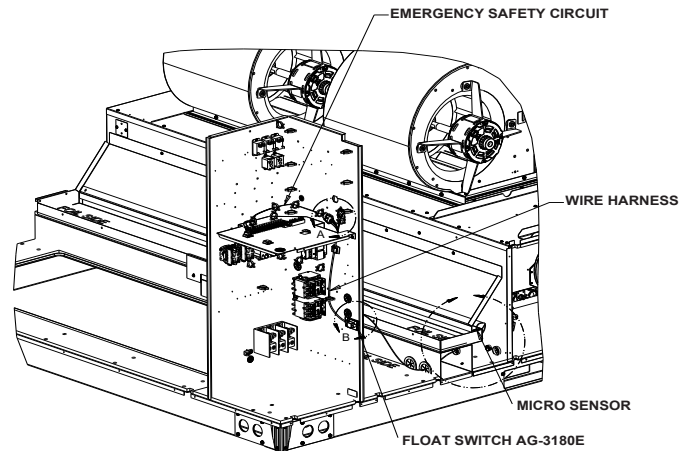


Figure 20

5. Place the AG-3180 inside the control box. Use the adhesive strip to attach the bracket to the control box as shown in Figure 21. Insert the 2 way connector from the module through the bottom bushing (1.375" grommet) towards the drain pan.

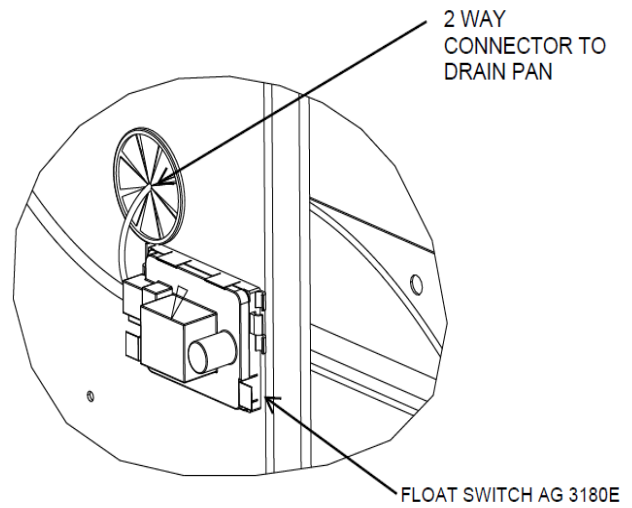


Figure 21

6. Fix the micro sensor on the mounting bracket by sliding the micro sensor onto the drain pan as shown in Figure 22. Adjust depth of the sensor as needed.

10. Verify float switch is wired according to the wiring instructions on page 8 or 9.
11. When wiring and other instructions are completed, install panel, Filter, Blower Coil and Blower Panel on the unit.
12. Restore power to the unit.
13. Expect "Non Status Led" on AG-3180E, if "Red Status Led" inspect drainpan level and micro sensor.
14. Test the unit for proper operation.
15. Complete the Control Box cover installation.

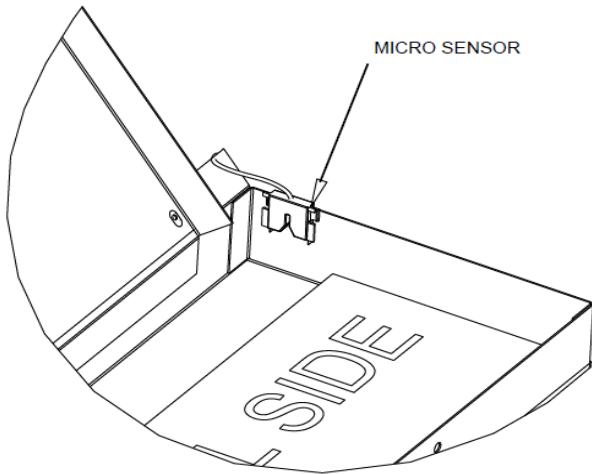


Figure 22

7. Route the 2 way connector from the control box through the bushing underneath the coil support as shown in Figure 23.

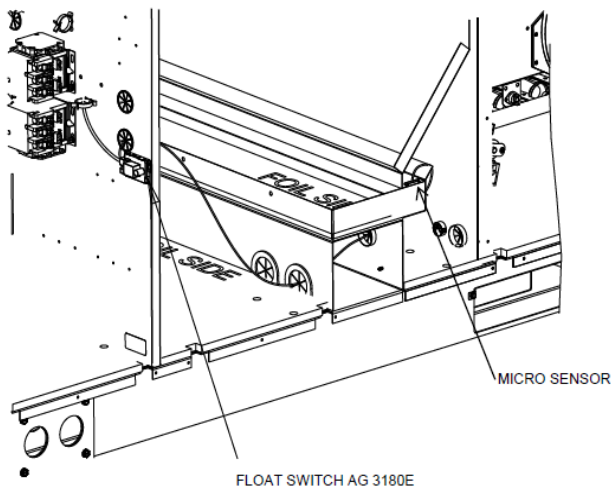


Figure 23

8. Make sure to fix the 2 way connector on the right side of the drain pan using the tie wraps to secure wires.
9. Route the remaining harness from the AG-3180E towards the top of the control box to the emergency shutdown circuit shown in Figure 24.

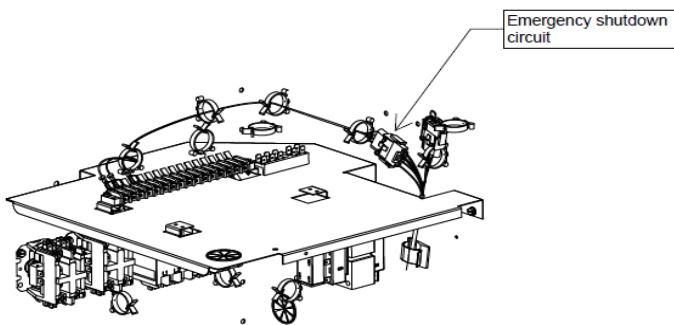
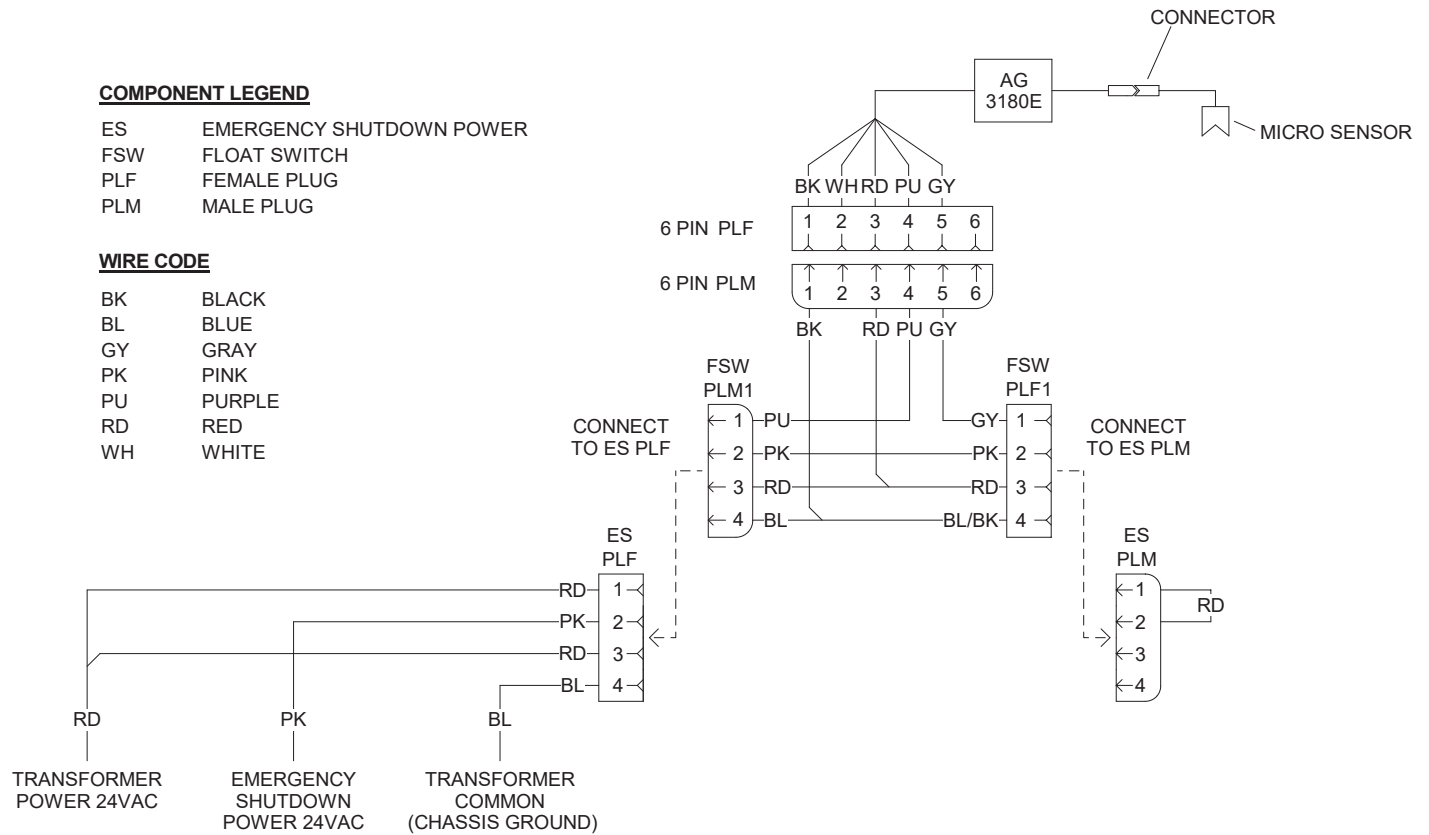


Figure 24

Field Installed Float Switch

Wiring instructions for units with no safety devices installed:



1. Disconnect all power to the unit.

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2. Unplug ES PLM from ES PLF.
3. Plug FSW PLM into ES PLF
4. Plug ES PLM into FSW PLF.
5. Zip tie and organize any extra wire.

Field Installed Float Switch

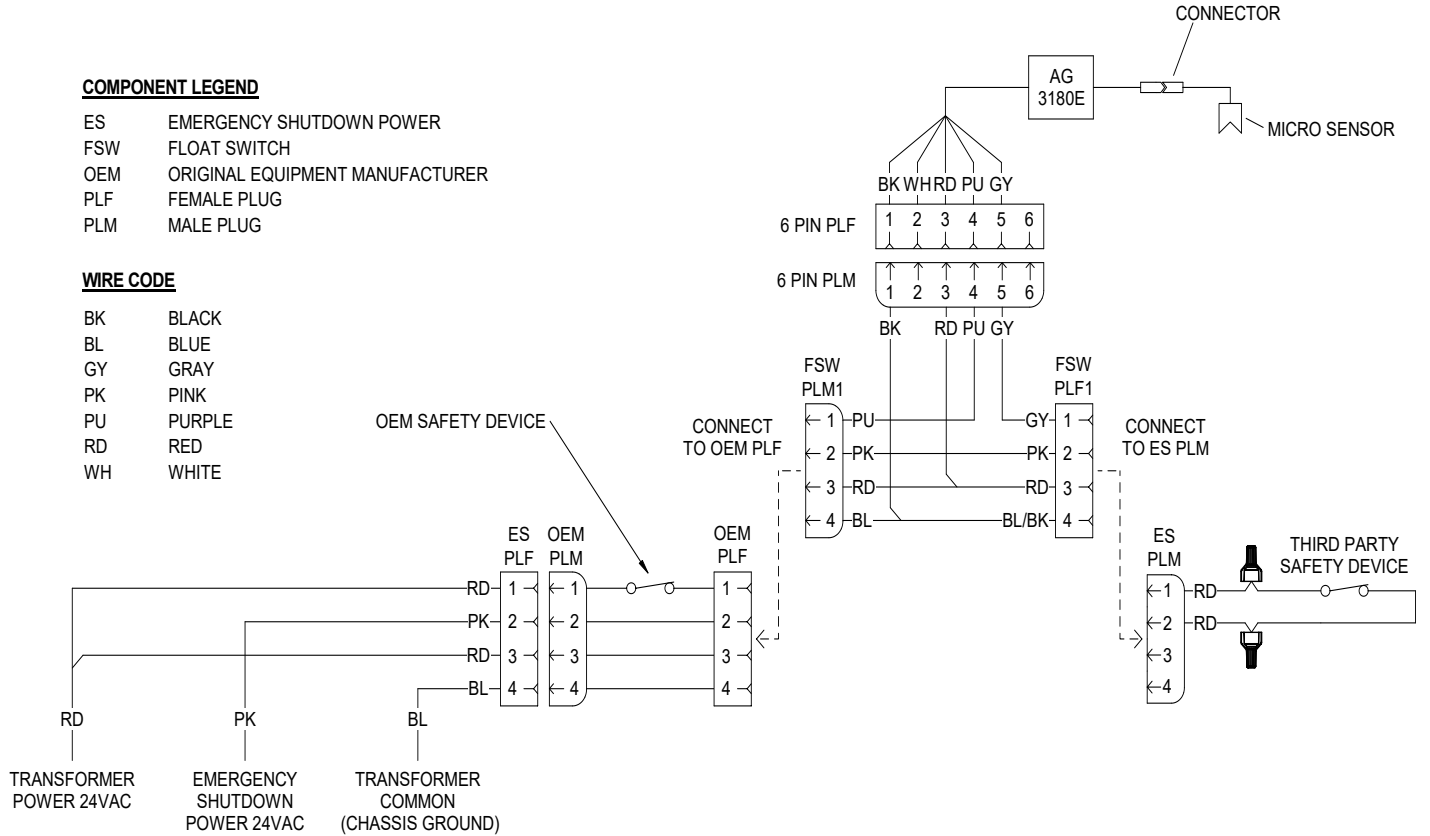
Wiring instructions for units with OEM or third party safety devices installed.

COMPONENT LEGEND

ES	EMERGENCY SHUTDOWN POWER
FSW	FLOAT SWITCH
OEM	ORIGINAL EQUIPMENT MANUFACTURER
PLF	FEMALE PLUG
PLM	MALE PLUG

WIRE CODE

BK	BLACK
BL	BLUE
GY	GRAY
PK	PINK
PU	PURPLE
RD	RED
WH	WHITE




1. Disconnect all power to the unit.



WARNING

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CAUTION

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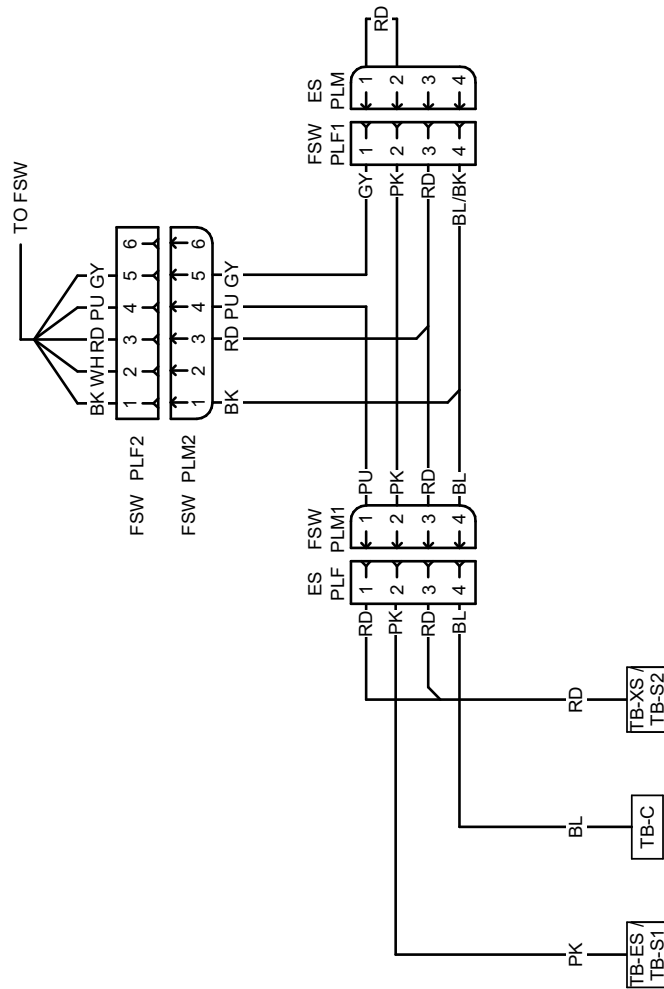
2. Unplug ES PLM from OEM PLF.
3. Plug FSW PLM into OEM PLF.
4. Plug ES PLM into FSW PLF.
5. Zip tie and organize any extra wire.



WARNING
 HIGH VOLTAGE!
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCE
 MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

Wiring is subject to change.

FLOAT SWITCH WIRING DIAGRAM



WIRE CODE

- BK BLACK
- BL BLUE
- BL/PK BLUE WITH PINK STRIPE
- BR BROWN
- GR GREEN
- GY GRAY
- OR ORANGE
- PK PINK
- PU PURPLE
- RD RED
- TN TAN
- WH WHITE
- YL YELLOW
- YL/PK YELLOW WITH PINK STRIPE

COMPONENT LEGEND

- C TRANSFORMER COMMON
- ES EMERGENCY SHUTDOWN POWER
- FSW FLOAT SWITCH
- PLF FEMALE PLUG/CONNECTOR
- PLM MALE PLUG/CONNECTOR
- TB TERMINAL BLOCK
- TR TRANSFORMER
- XS TRANSFORMER POWER



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You can also scan the QR code on the right for the product brand you purchased to be directed to the feedback page.



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