

HUSSMANN®

P/N 3056184_A

April 2018



AK-CC-210 CONTROLLER RETROFIT

REPLACEMENT FOR SAFE-NET III
CONTROLLERS

Entyce TY cases



WARNING

— LOCK OUT / TAG OUT —

To avoid serious injury or death from electrical shock, always disconnect the electrical power at the main disconnect when servicing or replacing any electrical component. This includes, but is not limited to, such items as doors, lights, fans, heaters, and controllers.

INSTRUCTION-SAFENET III TO AK-CC-210 RETROFIT

**P/N 1H26193500
DF AKS 11
coil out
sensor**



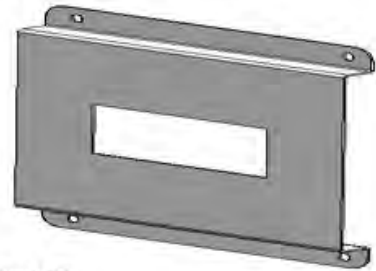
**P/N 3015028
DF AKS 12
discharge air
sensor**



**P/N 1h56892500
Danfoss AK-CC-210
Controller**



**P/N 3042372005
Danfoss controller
mounting bracket**



**P/N 3052026
gel cap
connectors**

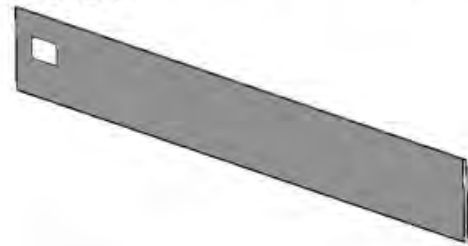
**P/N 3040211995
troubleshooting label**

Alarm Troubleshooting		
Problem	Alarm description	Corrective action
	Alarm description: Alarm 1 (High pressure) or Alarm 2 (Low pressure)	Check the refrigerant level. Recharge the system if necessary.
	Alarm description: Alarm 3 (High current)	Check the electrical connections. Check the compressor current. Check the condenser fan speed.
	Alarm description: Alarm 4 (High temperature)	Check the condenser fan speed. Check the condenser coil. Check the condenser fan speed.
	Alarm description: Alarm 5 (High pressure)	Check the refrigerant level. Recharge the system if necessary.
	Alarm description: Alarm 6 (Low pressure)	Check the refrigerant level. Recharge the system if necessary.
	Alarm description: Alarm 7 (High current)	Check the electrical connections. Check the compressor current. Check the condenser fan speed.
	Alarm description: Alarm 8 (High temperature)	Check the condenser fan speed. Check the condenser coil. Check the condenser fan speed.
	Alarm description: Alarm 9 (High pressure)	Check the refrigerant level. Recharge the system if necessary.
	Alarm description: Alarm 10 (Low pressure)	Check the refrigerant level. Recharge the system if necessary.

**P/N 3040207995
startup label**

Startup & Single Alarm Troubleshooting
 1. Make sure the unit is properly installed and the fan is running.
 2. Check the refrigerant level.
 3. Check the electrical connections.
 4. Check the condenser fan speed.
 5. Check the condenser coil.
 6. Check the condenser fan speed.
 7. Check the refrigerant level.
 8. Check the refrigerant level.
 9. Check the refrigerant level.
 10. Check the refrigerant level.

**P/N 3042373005
TY4-4X8I body panel for Danfoss
AK-CC 210**

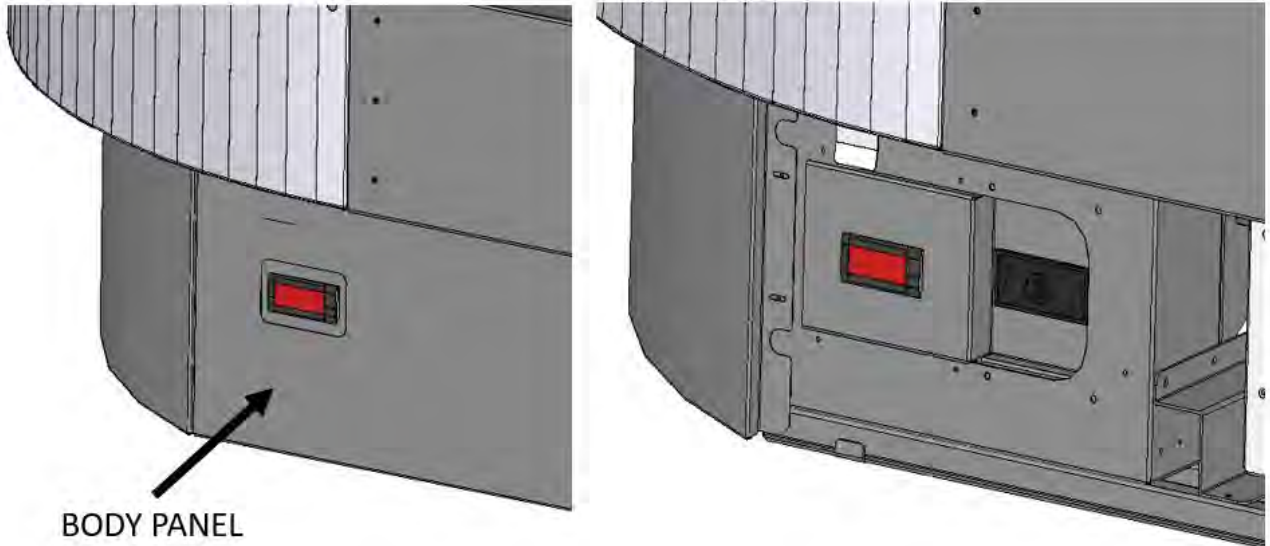


INSTALLATION TOOL LIST

- #0, #1 and #2 phillips-head screw driver
- wire cutters
- silicone sealant
- cable ties
- insulation wrap
- gel cap connectors - P/N 3052026

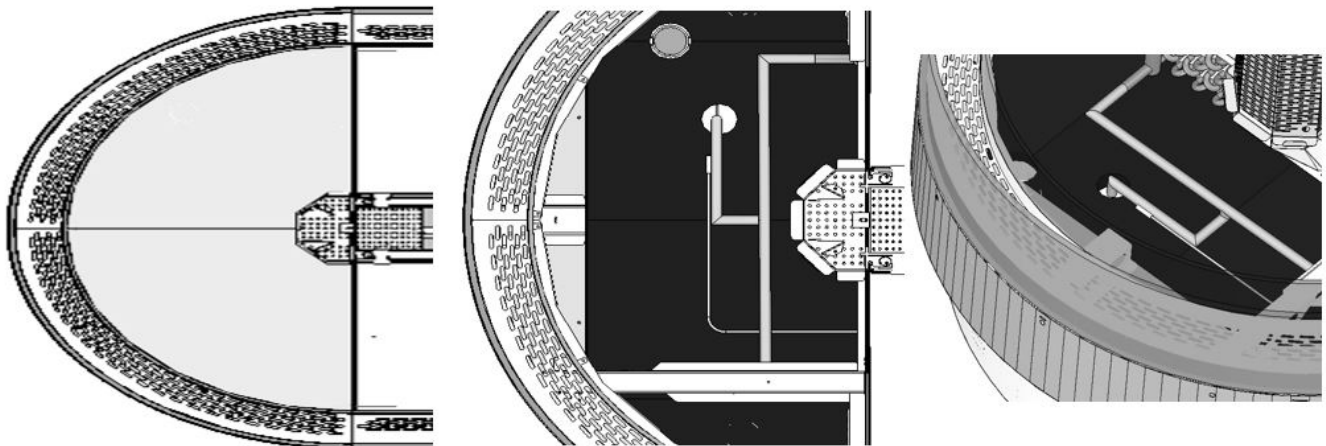
Total estimated time for retrofit is about 2 hours and 15 minutes.

- 1) Switch case off and unplug the case from the electrical outlet. unload the merchandise from the case as required. (estimated time = 10 mins)
- 2) Locate the Safe-NET Controller behind body panel as shown in the picture below. (estimated time = 5 mins)

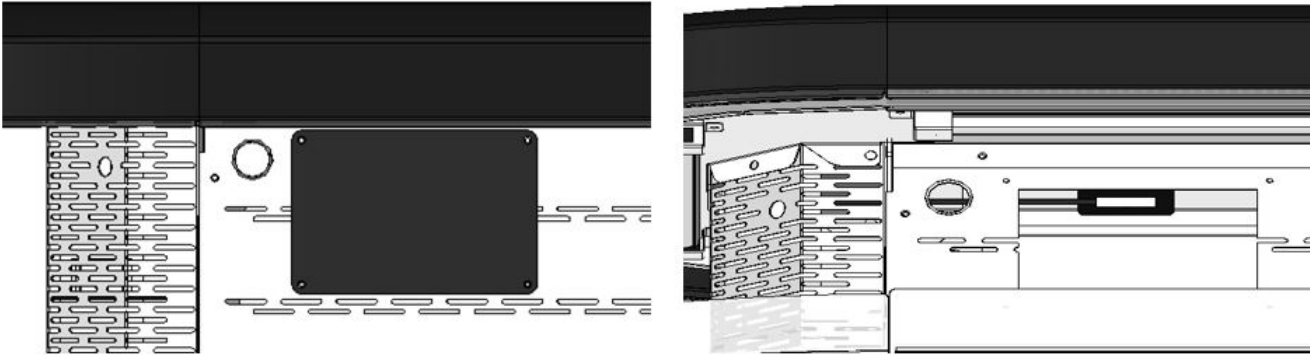


- 3) The Safe-NET Control Sensors are located on suction line (yellow sensor) and discharge air (black sensor) behind the removable service wall as shown below.

Deck pans (left picture below) will need to be removed to access the yellow sensor from the end where refrigeration piping is located. (estimated time = 15 mins)



Black sensors are located behind the access panel located on the center cad. Remove the access panel, and the sensor can be seen mounted on a bracket as shown in the picture below. (estimated time = 10 mins)



4) The old Safenet yellow sensor for the suction line will need to be replaced by coil out sensor (PN 1H26193500). It is recommended to replaced the sensor as a whole unit but the technician could just replace the sensor tip.

Cut the Safenet yellow sensor wire 4" away from the tip and remove the wire shielding to expose the wires. Perform the same on the Danfoss sensor tip also to expose the wires on the sensor. Connect the Danfoss sensor to the Safenet wire using the provided gel caps connectors. It is not required to strip the wires to bare copper, the connector is self-splicing

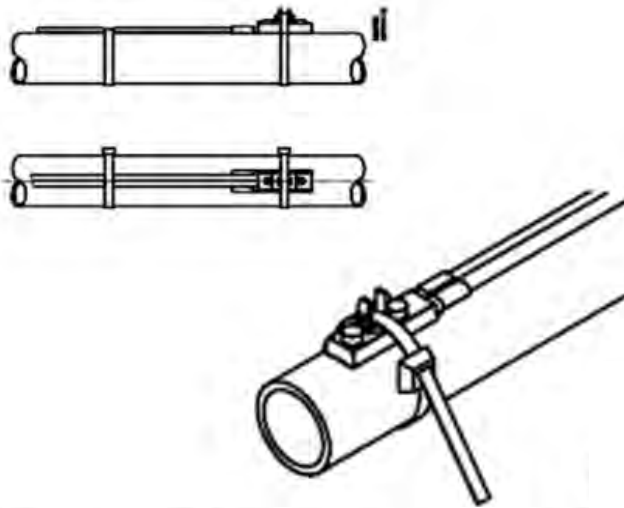
OLD SENSOR VS NEW SENSOR



P/N 1H26193500
DF AKS 11
COIL OUT
SENSOR



Ensure that the metal section of the sensor is in contact with the suction line pipe, tie the sensor to the suction line with cable tie securely. The cable tie needs to pass between the plastics prongs encircled by a spring as shown in the pictures below. Wrap the suction line area with insulation once complete. (Est time = 20 mins)



5) The old Safenet discharge air sensor (black sensor) will need to be replaced by Danfoss discharge air sensor (P/N 3015028). It is recommended to replaced the sensor as a whole unit but the technician could just replace the sensor tip.

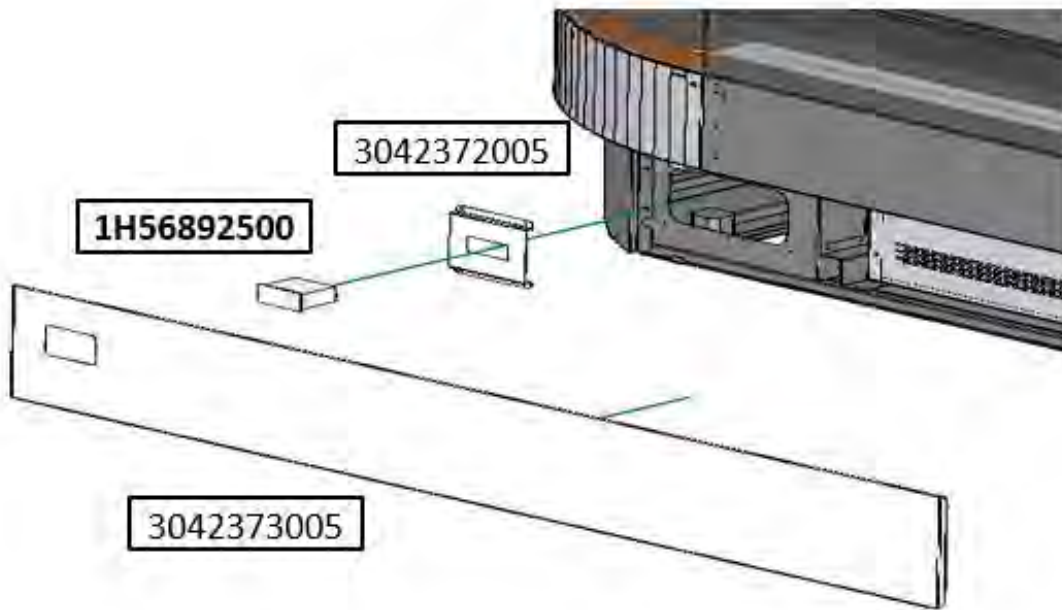
Cut the Safenet yellow sensor wire 4" away from the tip and remove the wire shielding to expose the wires. Perform the same on the Danfoss sensor tip also to expose the wires on the sensor. Connect the Danfoss sensor to the Safenet wire using the provided gel caps connectors. It is not required to strip the wires to bare copper as the connector is self-splicing. (Est time = 20 mins)

OLD SENSOR VS NEW SENSOR



6) Wire the controller per the provided wiring diagram on the next page. (estimated time = 20 mins)

7) Replace the electrical panel, the Safe-NET Controller and display module with the provided electrical panel and AK-CC-210 Controller. (estimated time = 10 mins)



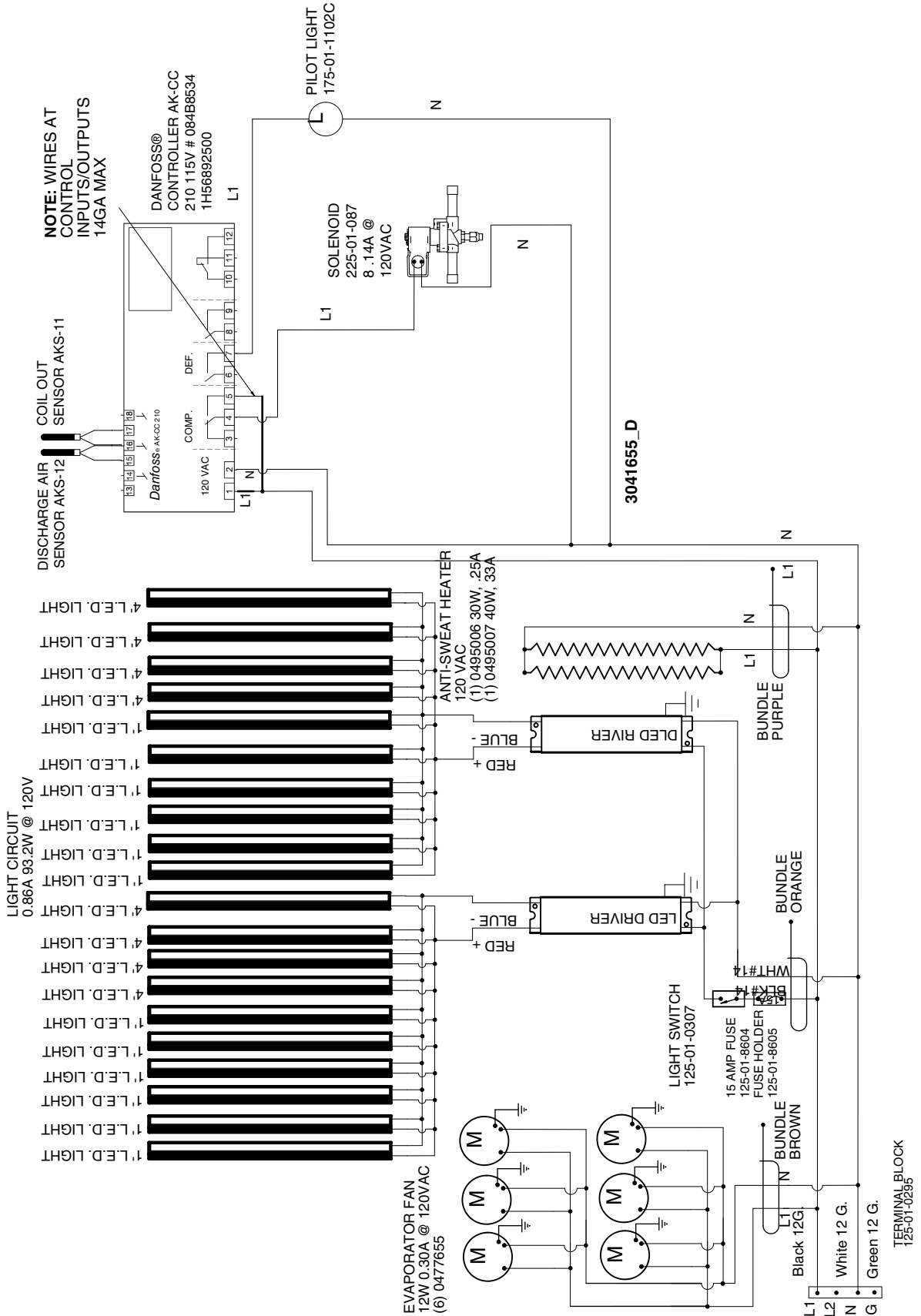
8) Mount the electrical panel back on to the case. (estimated time = 10 mins)

9) Power the case up. (estimated time = 5 mins)

10) The controller is shipped pre-program, but confirm that the setting on the controller matches the program sheet. (estimated time = 15 mins)

11) The retrofit kit will come with a body panel. Please replace them respectively. (estimated time = 5 mins)

12) Locate the previous label. The label should be attached on the control panel's cover. Replace the previous labels with the labels provided. (estimated time = 5 mins)





HUSSMANN[®]

**To obtain warranty information
or other support, contact your
Hussmann representative.
Please include the model and
serial number of the product.**

Hussmann Corporation, Corporate Headquarters: Bridgeton, Missouri, U.S.A. 63044-2483 01 October 2012