



Upper Gas Cooler replacement process

SandenVendo January 2022

This document presents the main steps for replacing the upper Gas Cooler of a Sanden Condensing unit CDU-L or CDU-M

References:

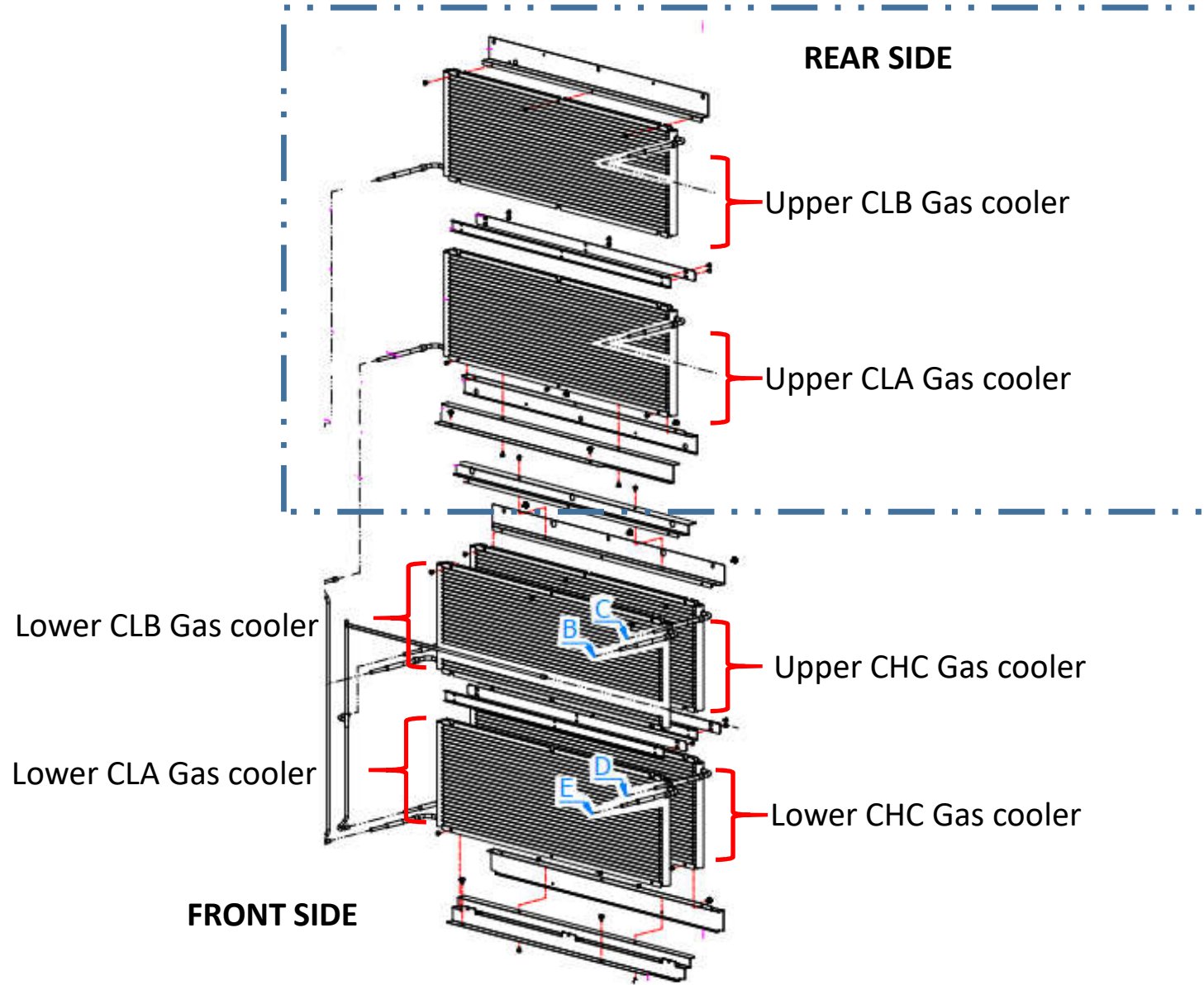
Type	Model
CDU-L	R06A2A R06A2B R06A2C
CDU-M	R04A1A R04A1B R04A1C R04A1D

100% CO2 Condensing units

ECO-FRIENDLY REVOLUTION

This document is the property of SandenVendo GmbH.
The illustrations in this document are given for information only.
SandenVendo GmbH reserves the right to modify information in
this document without notice.





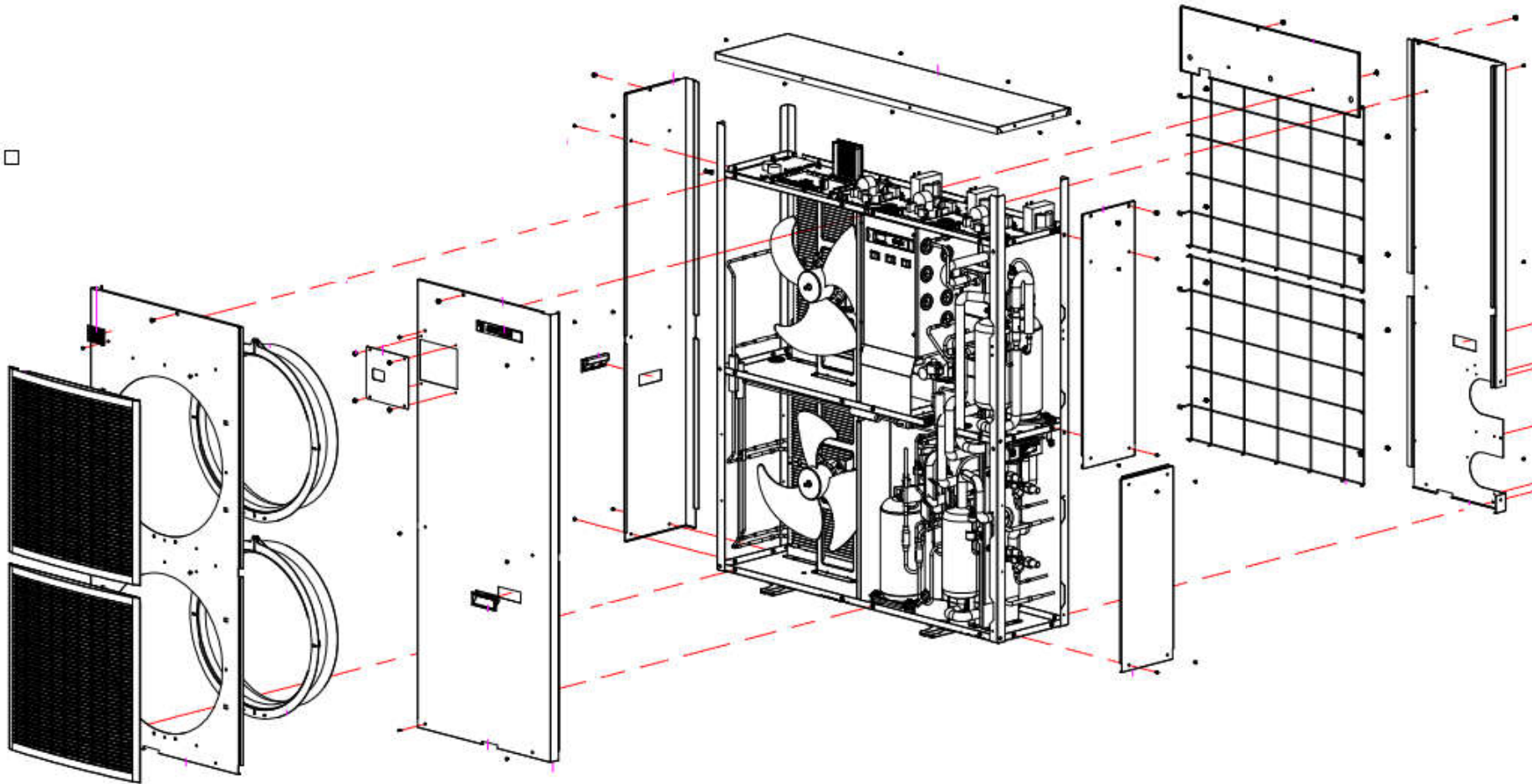


CLA or CLC Upper Gas Cooler replacement process

1. Turn off the condensing unit.
2. Remove the CDU casing (left side + right side + front right and left + rear panel , and top panel)
3. Remove the Gas cooler protection grid
4. Disconnect and Remove the Upper Fan motor.
5. Remove HEX BRAKET between the 2 Gas Cooler
- 6a. For CLA → remove the bolts the ANGLE BAR UPPER B and ANGLE BAR UPPER C
- 6b. For CLB → remove the bolts ANGLE BAR UPPER A
7. Open the control panel box
- 8a. For CLA → Disconnect & remove the CHC PCB Inverter
- 8b. For CLB → Disconnect & remove the CLA PCB Inverter
- 9a. For CLA → Untightened the latest bolt of ANGLE BAR UPPER B and ANGLE BAR UPPER C
→ remove the l'ANGLE BAR UPPER B et l'ANGLE BAR UPPER C by rotating them under the Gas Cooler
- 9b. For CLB → Untightened the latest bolt of ANGLE BAR UPPER A
10. Remove the refrigerant R744 of the dedicated loop through the suction service valve.
11. Ensure that there is no remaining pressure on the loop.
12. Debraze and remove the failed Gas cooler
13. Prepare the new Gas Cooler
14. Brazing with nitrogen flux.
15. Leakage test at 80 bar , check brazing (see guide for piping work and start-up)
16. Reassembled and reconnect the PCB inverter
17. Close the control panel box
18. Reassembled and reconnect the Upper Fan motor
19. Turn on the condensation unit
20. Vacuum of the dedicated loop for 3 hours
21. Reassembled all the fixing bracket.
22. Load R744 into the Loops A or B: initial loads determined at commissioning
23. Restart the entire installation, make sure it is working properly.
24. Close the panels

CLA or CLC Upper Gas Cooler replacement process

2. Remove the CDU casing (left side + right side + front right and left + rear panel , and top panel)



CLA or CLC Upper Gas Cooler replacement process

4. Disconnect & Remove the Upper Fan Motor

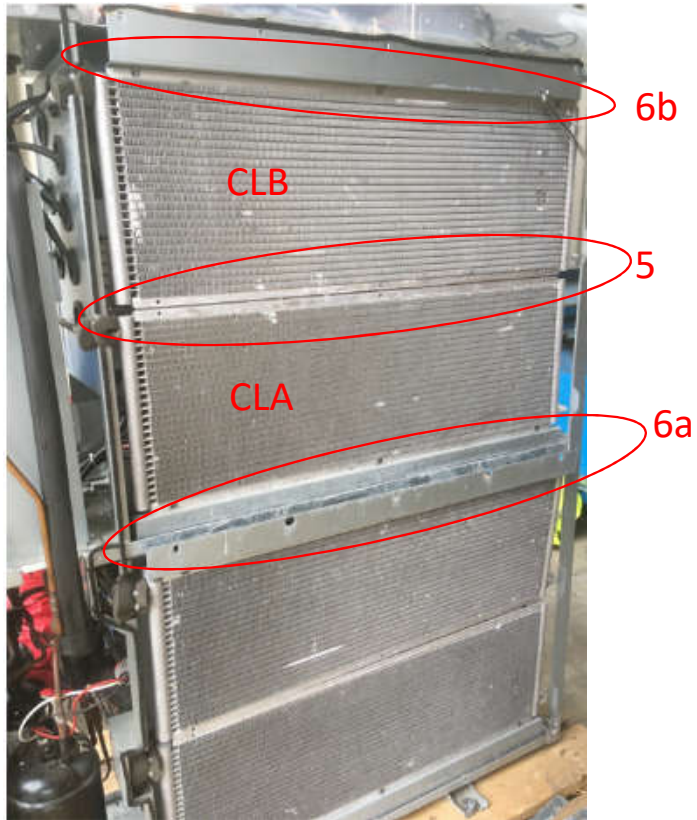


CLA or CLC Upper Gas Cooler replacement process

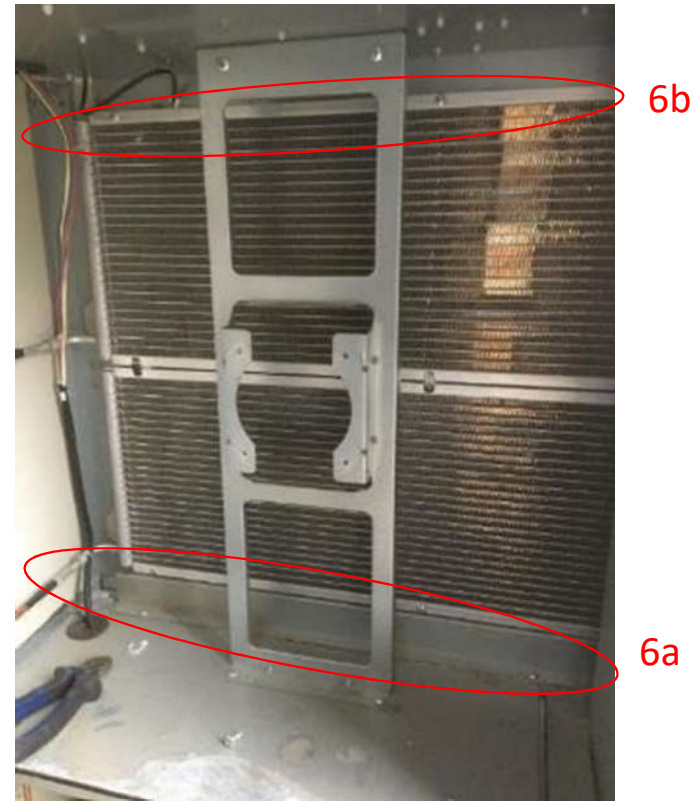
5. Remove HEX BRAKET between the 2 Gas Cooler

6a. For CLA → remove the ANGLE BAR UPPER B and ANGLE BAR UPPER C

6b. For CLB → Remove the ANGLE BAR UPPER A



External side



Fan side

CLA or CLC Upper Gas Cooler replacement process

- 7. Open the control panel box
- 8a. For CLA → Disconnect & remove the CHC PCB Inverter
- 8b. For CLB → Disconnect & remove the CLA PCB Inverter



CLA or CLC Upper Gas Cooler replacement process

9a. For CLA → Untightened the latest bolt of ANGLE BAR UPPER B and ANGLE BAR UPPER C

9b. For CLB → Untightened the latest bolt of ANGLE BAR UPPER A



Latest bolt ANGLE BAR UPPER
& ANGLE BAR UPPER C



Latest bolt ANGLE BAR UPPER A

CLA or CLC Upper Gas Cooler replacement process

After ANGLE BAR UPPER B & ANGLE BAR UPPER C dissociated from the Upper CLA Gas Cooler

9.a → remove the ANGLE BAR UPPER B & the ANGLE BAR UPPER C by rotating them under the Gas Cooler



ANGLE BAR UPPER B & ANGLE BAR UPPER C

CLA or CLC Upper Gas Cooler replacement process

10. Remove the refrigerant R744 of the dedicated loop through the suction service valve.



CLA or CLC Upper Gas Cooler replacement process

12. Debraze and remove the failed Gas cooler



Fan area



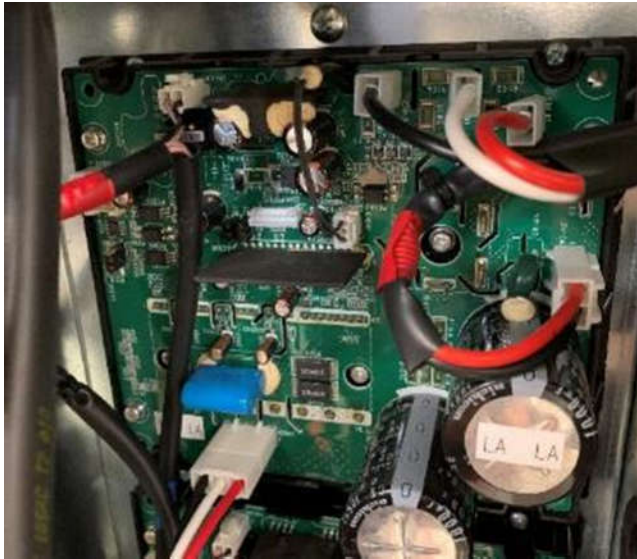
Compressor area



CLA or CLC Upper Gas Cooler replacement process

16. Reassembled and reconnect the PCB inverter CHC or CLA

CN102 - CN101 - CN100
Black - White - Red



Wiring
PCB Inverter INV-SCRM1A