

# NCB-H HEAT EXCHANGER COMPONENTS

Parts Code	Parts Name	Qty	Specification	Note
30027363A	Heat Exchanger Assembly	1	NCB-190/060H NCB-190/080H	
30027362A		1	NCB-240/110H NCB-240/130H NCB-250/150H	
20033662A	Fastener	2	Ø22.3	For outlet pipe Assembly (spare part) ※ Refer to step 3
20007733B	Fastener	1	Ø19.2	For inlet pipe Assembly (spare part) ※ Refer to step 3
20033699A	O-ring	2	Ø21.7×Ø3.5	For outlet pipe Assembly (spare part) ※ Refer to step 3
20003022A	O-ring	1	Ø18.8×Ø2.6,	For inlet pipe Assembly (spare part) ※ Refer to step 3
20023656A	Screw	11	M4×14	For Heat Exchanger and base assembly (spare part) ※ Refer to step 6
20033072A	Screw	6	M4×12 (Spring washer)	For gas pipe assembly (spare part) ※ Refer to step 5
20006465A	Screw	2	M4×10	For ignition transformer assembly (spare part) ※ Refer to step 10
20025892A	Screw	1	M4×12	For fan bracket and burner holding (spare part) ※ Refer to step 5
30008825A	Damper	1	OD54.4×20	Insert a new fan damper service part before reinstalling the fan assembly. ※ Refer to step 9

# NCB-H HEAT EXCHANGER REPLACEMENT PROCEDURES

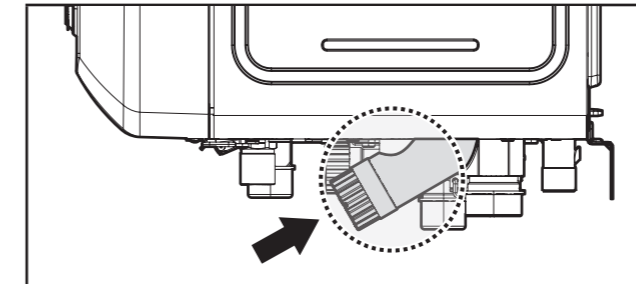
NCB-H Heat Exchanger Replacement must be performed by a qualified installer or service agency. Improper installation and failure to install in strict compliance with the installation procedures shall void Navien's Limited Warranty. Please contact Navien Technical Support with any questions during the heat exchanger replacement process 1-800-519-8794.

**Tools Required:**

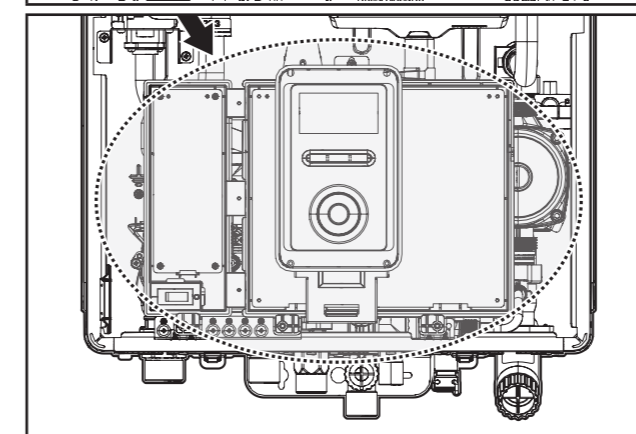
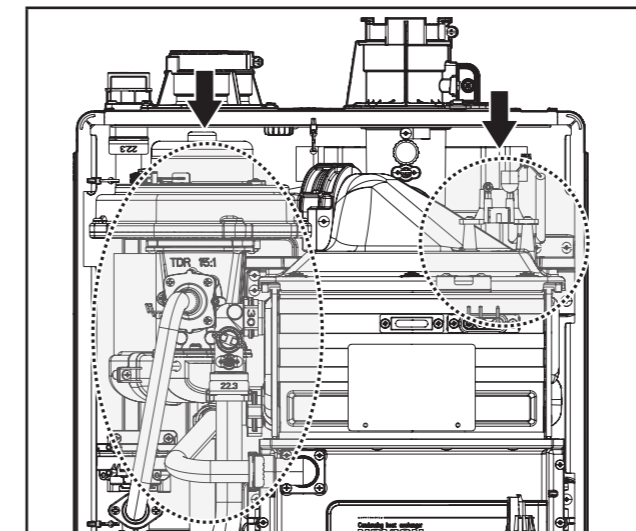
- 12" Phillips #2 Screwdriver (Magnetic Tip Recommended)

**Steps:**

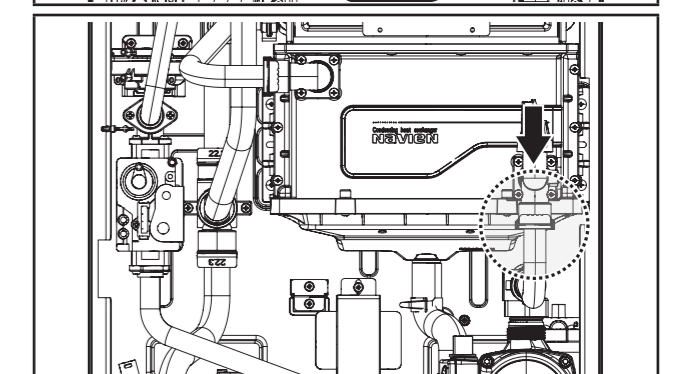
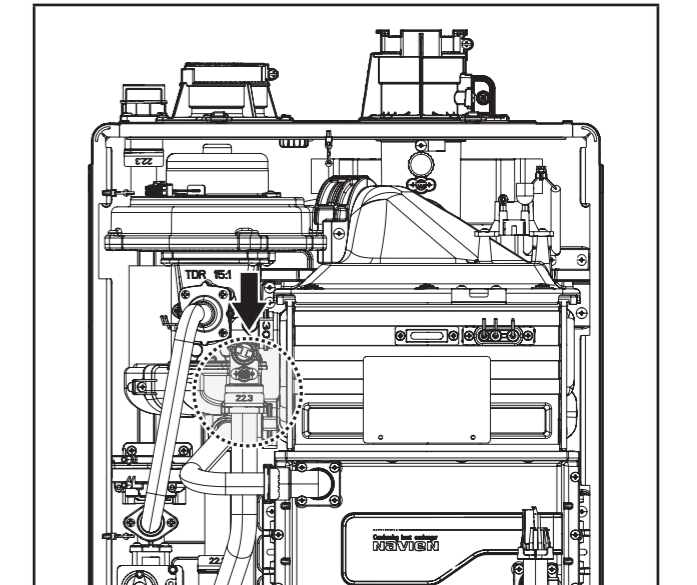
1. Shut off all power, water and gas supply valves at the unit. Next, drain (bucket recommended) the residual water from the unit by unscrewing the inlet water filter and allowing the unit to drain completely.



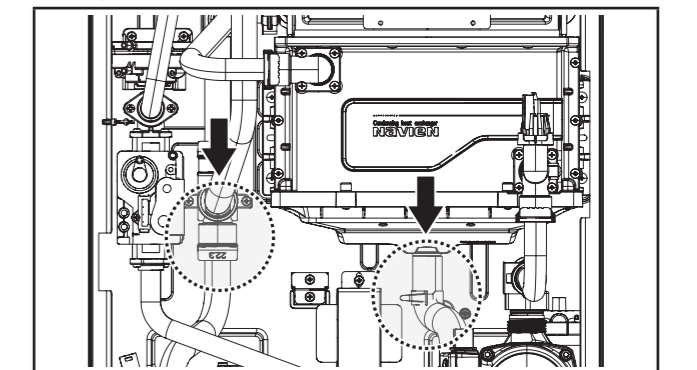
2. Disconnect and label all of the in-line wire connections from the wire harness.



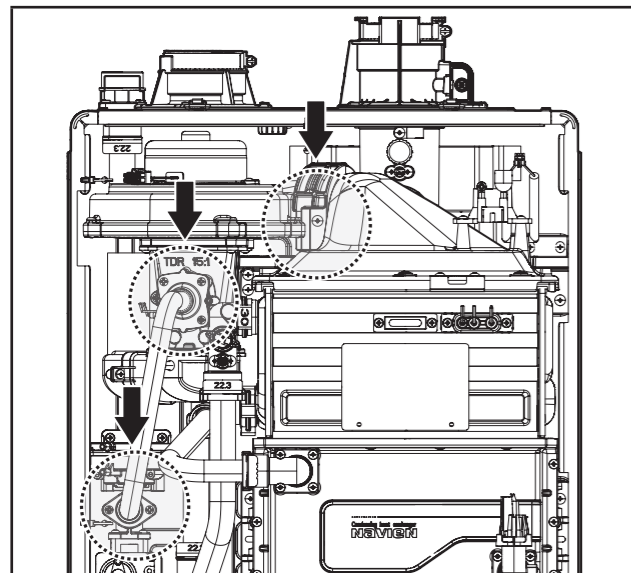
3. Remove fasteners labeled "22.3" and "19.2". Proceed to disconnect Water inlet pipe, and Water outlet pipe from Heat Exchanger Assembly.



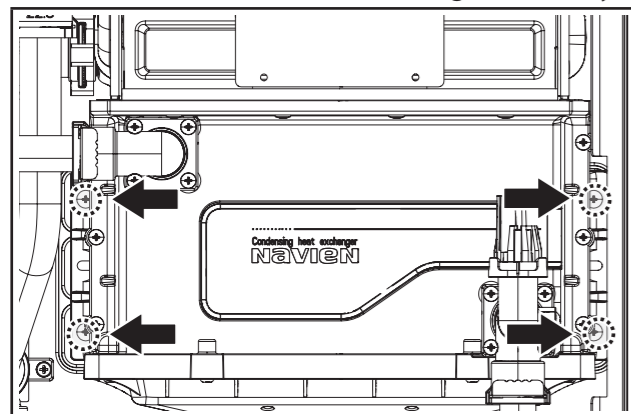
4. Remove the fastener clip labeled "22.3" (left) attached to the Heat Exchanger Outlet pipe, then loosen the clip to remove the Siphon Hose (right).



5. Remove the Gas Pipe Assembly (6 screws) and fan connection (1 screw).



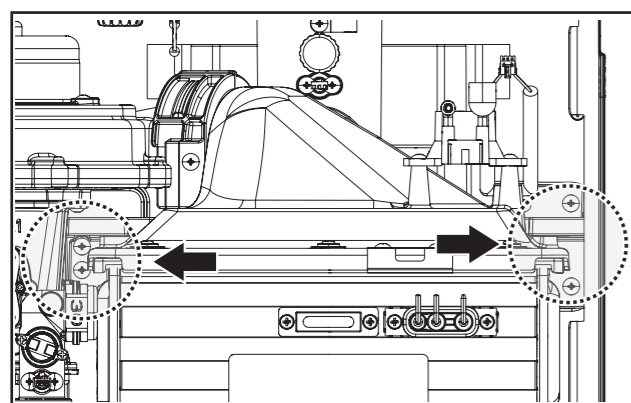
6. Remove the 4 screws attached to the brackets on either side of the Heat Exchanger Assembly.



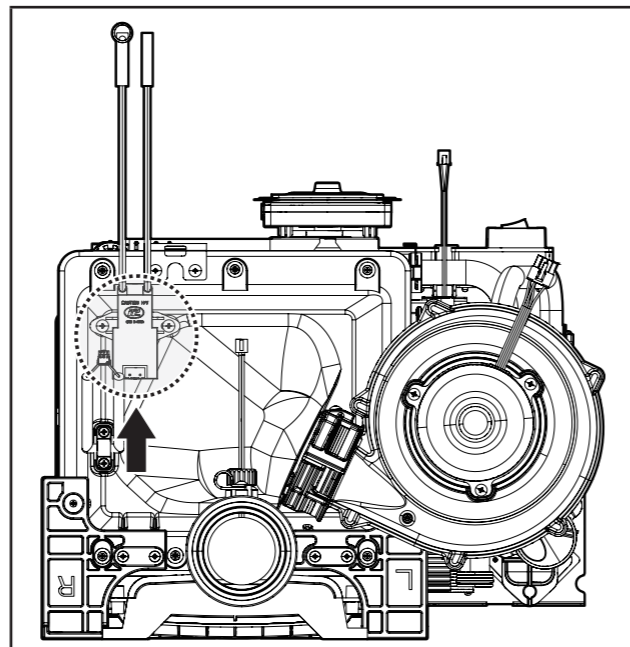
7. While supporting the weight from the bottom of the Heat Exchanger Assembly (approx. 30 lbs), remove the 5 screws attached to the top bracket.

**CAUTION**

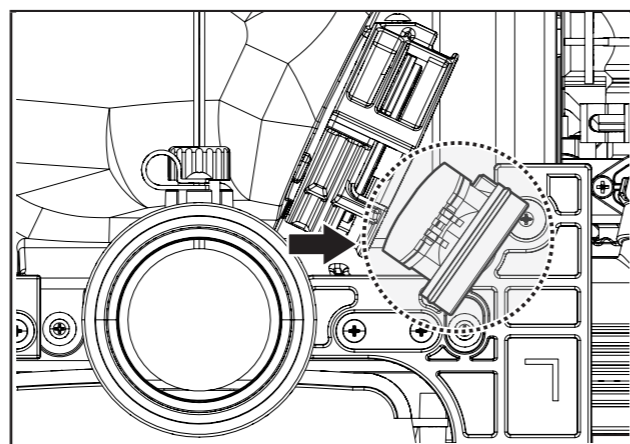
The heat exchanger can be heavy and could cause damage or injury if dropped.



8. Remove the Ignition Transformer from the old assembly and install it onto the top bracket of the new replacement heat exchanger.



9. Insert new Fan Damper included with packaging in between where fan motor assembly and burner meet.



10. Lift Heat Exchanger into place by angling the top burner portion and inserting the exhaust collar into the opening.

11. While supporting the weight of the Heat Exchanger, line up the mounting brackets and replace all 9 screws. Start by inserting a screw in each of the 4 bracket sections. Ensure all bracket screws are in place before completely tightening remainder of screws.

12. Re-install the Gas Pipe and Fan assembly. Tighten the screws where the gas tube connects to the main gas valve and the screw that holds fan bracket in place.

13. Re-attach the Heat Exchanger Outlet pipe using fasteners "22.3" and "19.2".

14. Firmly secure Siphon Hose to the nipple at the bottom of the Secondary Heat Exchanger. Also, re-attach the clear hose from the Air Pressure Sensor to the bottom of the Fan assembly.

**Note** Make sure to remove the plug from the nipple at the bottom of the Secondary Heat Exchanger before connecting the Siphon Hose in order to allow any condensate to drain out of the assembly.

15. Carefully install all in-line wire connections to their original locations. Make sure all connections are secure before supplying power to the unit.

16. Open all water/gas supply valves slowly and check for leaks before powering the unit ON. Make sure to remove air from the system and pump before operating the unit.