Check Valve
REPLACEMENT INSTRUCTIONS

Kit Name	Check Valve Replacement Kit
Kit Part Number	803000068
Compatible Rinnai Products	Rinnai Commercial Boiler Models: RCB301AN, RCB399AN, RCB500AN

⚠ WARNING Failure to correctly assemble the components according to these instructions may result in electric shock, injury, or death.

⚠ CAUTION To protect yourself from harm, follow the steps below before proceeding.

- Disconnect the electrical power supply by turning off the electricity at the circuit breaker.
- Shut off the gas at the gas valve, usually located near the gas connection at the appliance.
- Turn off the water by closing manual ball valves at the return and supply piping connections at the appliance.

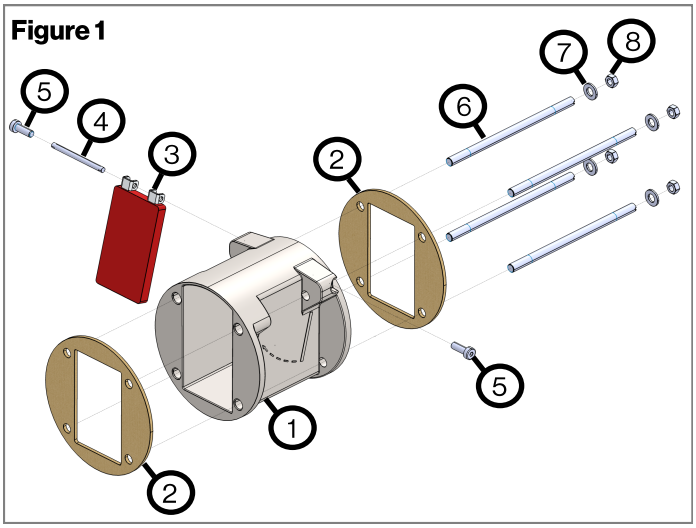
Items Inside Product Box

Before you begin, please make sure all parts are located inside the product box.

Table 1

Item #	Item (Part Number)	Qty
1	Check Valve Body (808000043)	1
2	Check Valve/Blower Gasket (809000224)	2
3	Check Valve Flap (808000041)	1
4	Check Valve Pin (808000042)	1
5	Flapper Body Screw, M4X12 DIN91 (806000080)	2
6	Threaded Rod for Check Valve (809000223)	4
7	Serrated Washer A5,3 DIN6798 (809000269)	4
8	Nut, M5 DIN 934 (809000272)	4
9	This document (800000178)	1

Figure 1



TOOLS/MATERIALS REQUIRED

- ❒ Phillips Head Screw Driver
- ❒ Flat Head Screw Driver
- ❒ Adjustable Wrench
- ❒ 8 MM Nut Driver/Wrench
- ❒ 2.5 MM Allen Wrench
- ❒ Tongue and Groove Plier

Instructions

1. Turn off and disconnect 120 V power supply.
2. Turn off gas supply.
3. Turn off water supply.

➡ IMPORTANT

When following the instructions in this document, inspect any existing O-rings and/or gaskets carefully, taking care not to scratch, damage, or misplace the O-rings and/or gaskets.

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4. **RCB301AN/RCB399AN:** Use a Philips head screw driver to remove two screws located on the bottom of the appliance securing the front panel (Figure 2A). Pull out the bottom of the front panel to clear the display assembly (Figure 2B), then lift the front panel up to clear the pins located on top of the appliance (Figure 2C).

Figure 2A

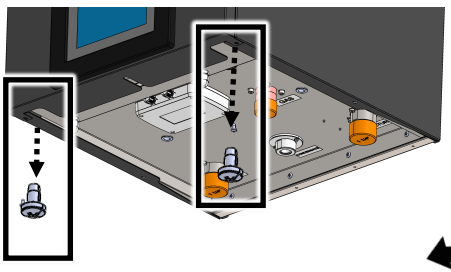


Figure 2B

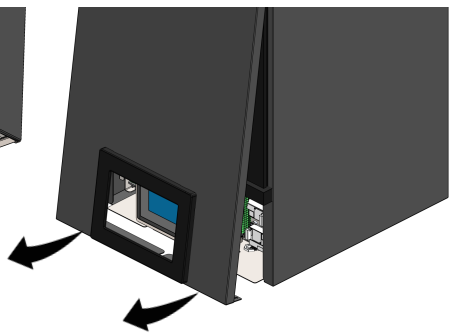
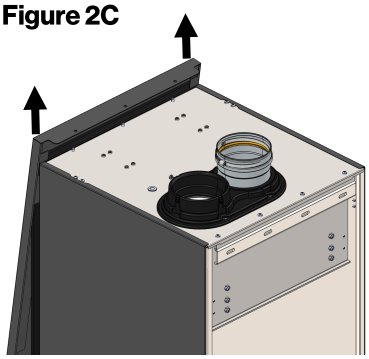


Figure 2C



5. **RCB301AN/RCB399AN:** Use a Phillips head screw driver to remove three (3) screws holding left side panel (Figure 3A). Rotate the side panel out (Figure 3B), push the panel up to clear the cutout located on back side of boiler, and pull the side panel out (Figure 3C).

Figure 3A

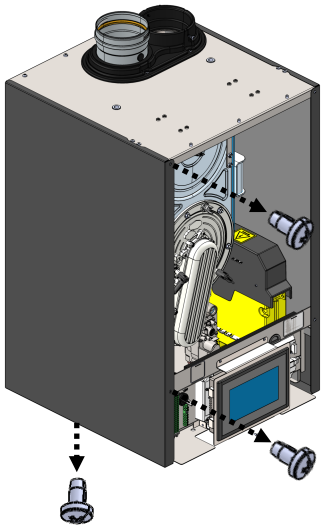


Figure 3B

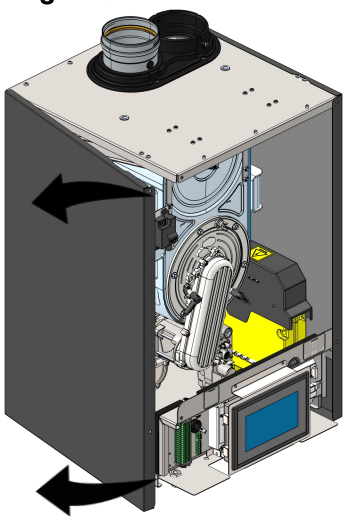
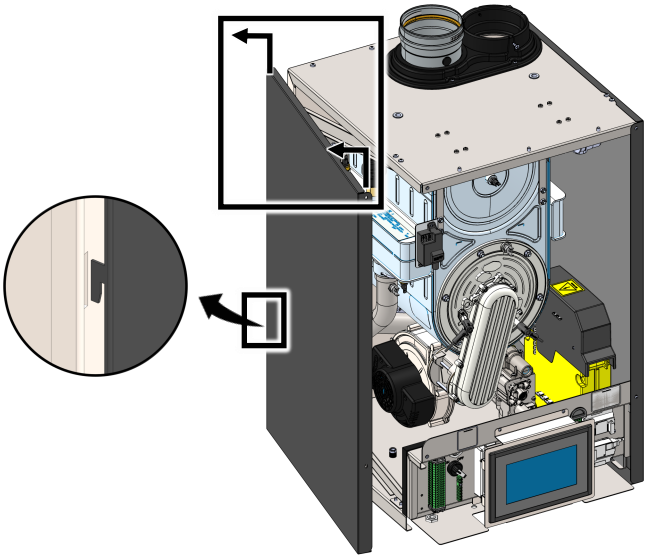


Figure 3C



6. **RCB500AN:** Use a Phillips head screwdriver to remove four (4) screws securing the angle panel around the display assembly (Figure 4A). Place the screws and panel in a safe location until they are needed for re-assembly.
7. **RCB500AN:** Use a Phillips head screwdriver to remove two (2) screws securing the front panel (Figure 4B). Slide the panel up to clear the pins on the bottom, then pull it out to remove it from the boiler. Place the screws and panel in a safe location until they are needed for re-assembly.
8. **RCB500AN:** Remove two (2) screws for right side panel from the front side of the boiler, then rotate the side panel out to clear the bottom part of the side panel (Figure 4C).
9. **RCB500AN:** Pull the panel forward to clear the locking mechanism on the back side then pull the panel out (Figure 4C). Place the screws and panel in a safe location until they are needed for re-assembly.

Figure 4A

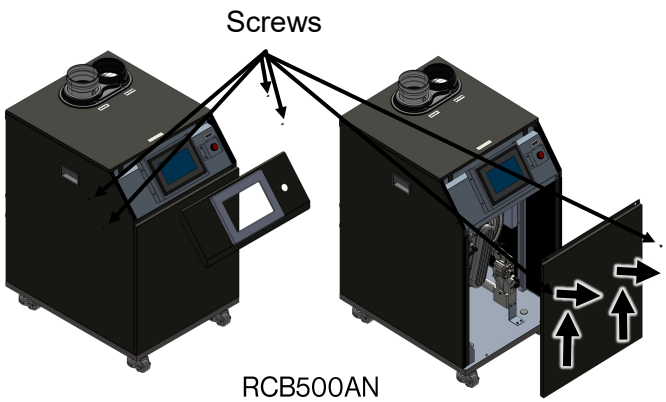


Figure 4B

Figure 4C

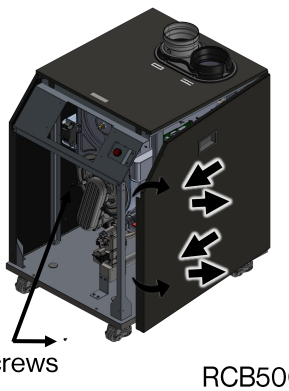
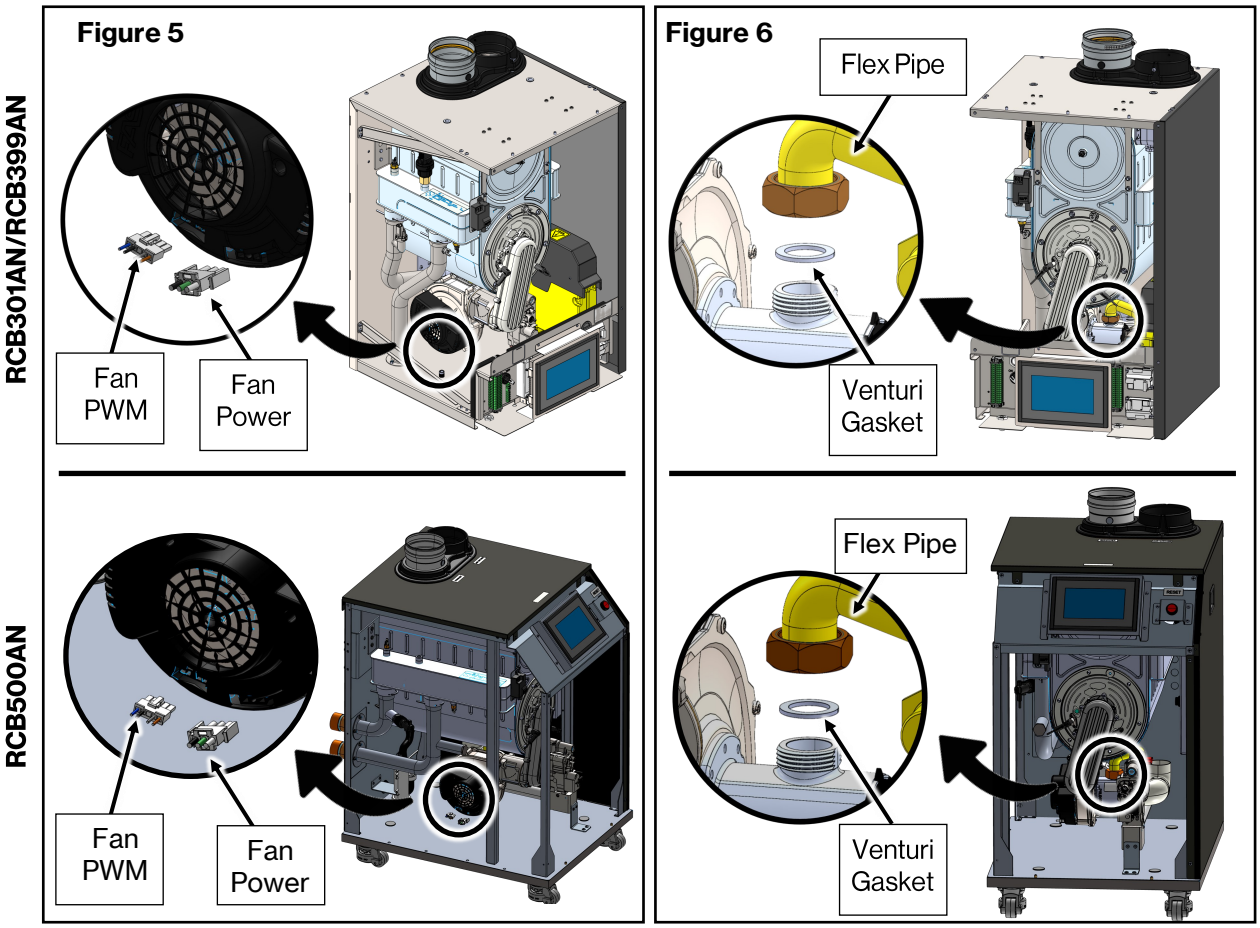
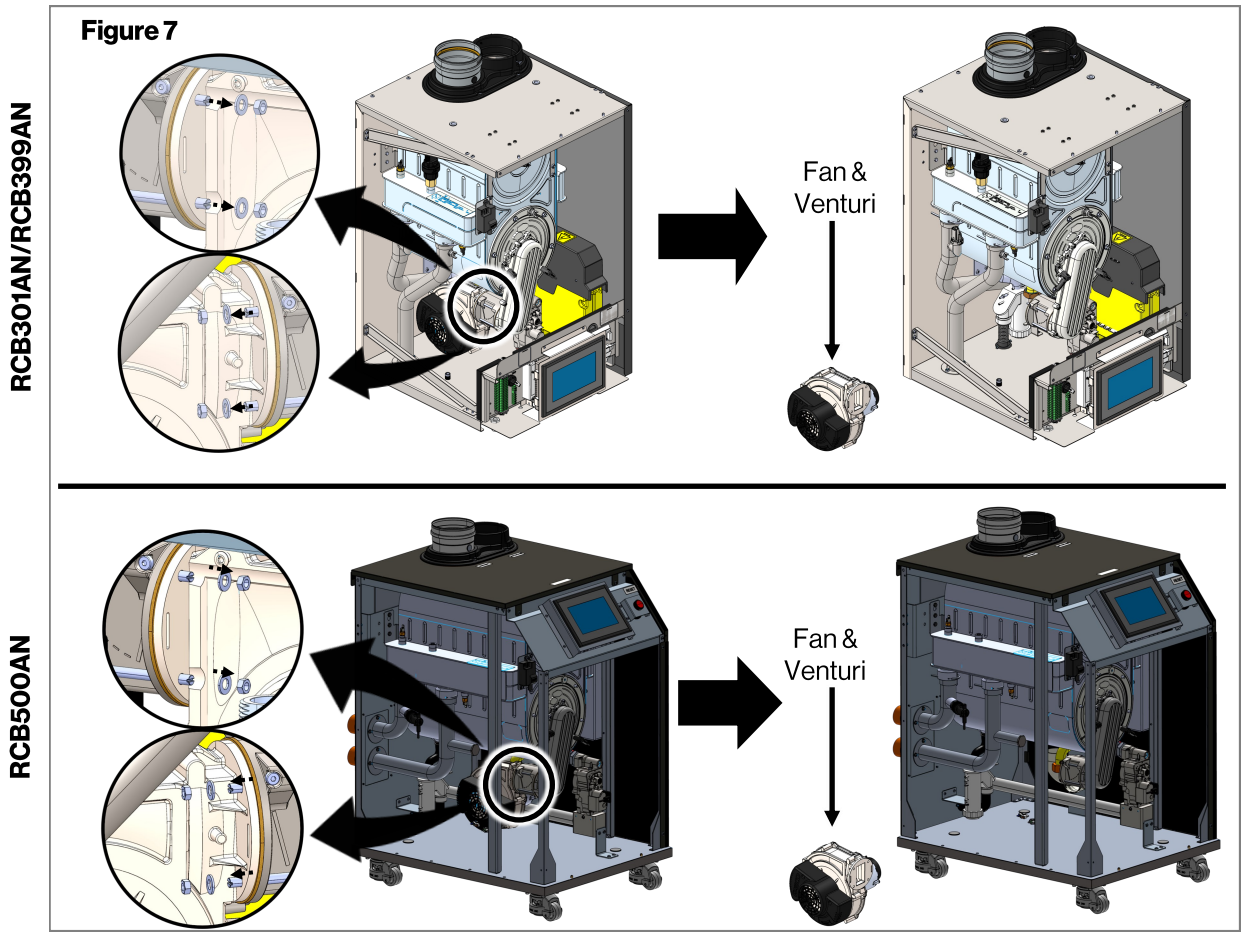


Figure 4D

10. Disconnect the fan power and fan PWM connectors from Fan (Figure 5).
11. Disconnect flex pipe from venturi. Ensure venturi gasket is stored at secured location to be reinstalled (Figure 6).



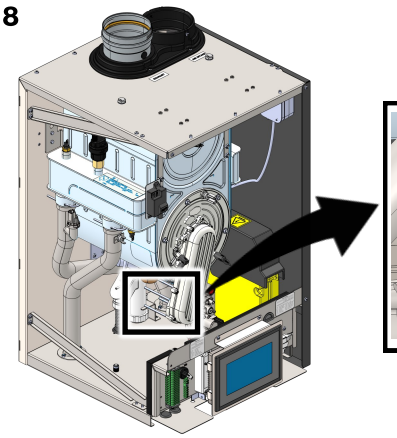
12. Use a 8 mm nut driver to remove four nuts and washers securing fan to check valve assembly. Remove fan with venturi to gain access to check valve assembly (Figure 7).

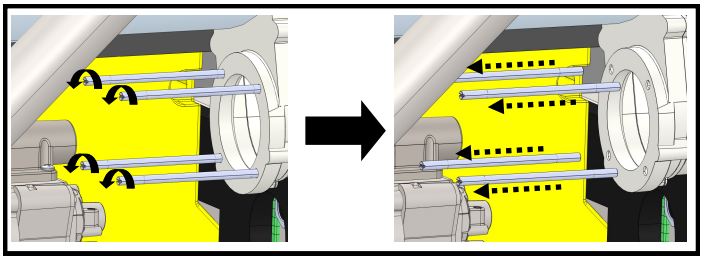


13. In case the threaded rods get damaged during disassembly , use a flat head screw driver to remove threaded rod from the burner inlet channel (Figure 8).

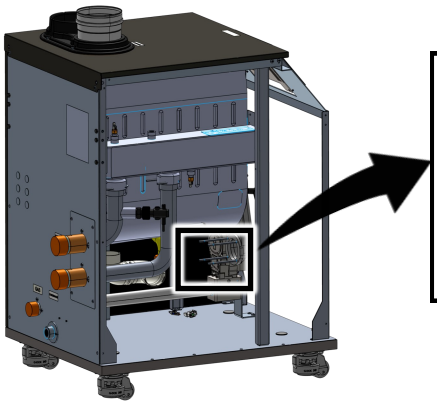
Figure 8

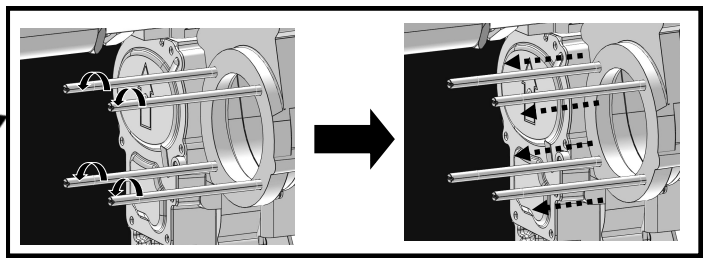
RCB301AN/RCB399AN





RCB500AN





Check Valve Reassembly

1. Install new check valve assembly and gaskets by sliding them on the four threaded rods. **IMPORTANT: Check valve MUST be installed in correct orientation. Verify arrow is facing burner inlet channel (Figure 9).** Failure to install check valve assembly properly will block airflow and cause ignition issue. Also, ensure gaskets are installed in the correct orientation (matching the opening on the check valve assembly). Failure to install gasket(s) correctly will block air flow air reduce boiler input rate (Figure 10).

Figure 9

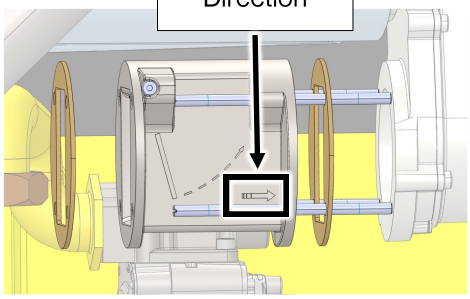
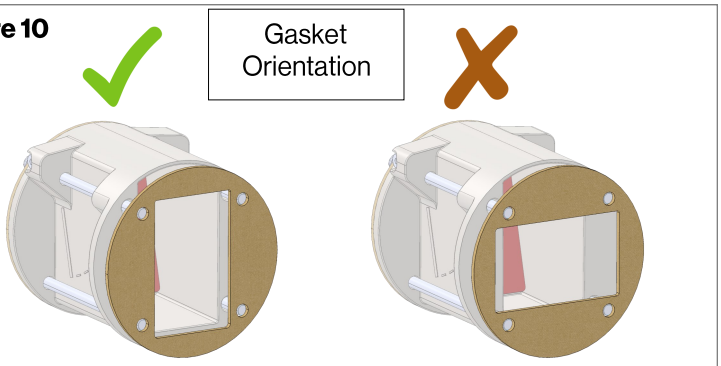


Figure 10



2. Reinstall the fan assembly using four nuts and washer as shown in Figure 6. **NOTE:** Ensure gasket is installed correctly (Figure 10)
3. Reconnect the flex pipe on venturi (Figure 5). **NOTE**: Ensure the gasket is installed.

⚠ WARNING Missing gasket between flex pipe and venturi can cause a gas leak. Failure to install venturi gasket will cause gas leaks which may result in property damage, injury, or death.

4. Reconnect fan power and fan PWM connectors (Figure 4). Restore water and gas supply. Turn on and connect 120 V power supply.
5. Operate the boiler and perform gas leak detection test for gas.
6. **RCB301AN & RCB399AN:** Line up left side panel with slots located on back side of boiler and secure it using three screws (Figure 3A, 3B & 3C).
7. **RCB301AN & RCB399AN:** Line up front panel assembly with pins located on top of the boiler and secure it using two screws on bottom (Figure 2A, 2B & 2C).
8. **RCB500AN:** Reinstall all panels in the reverse order they were disassembled (Figures 4A, 4B, 4C, 4D).