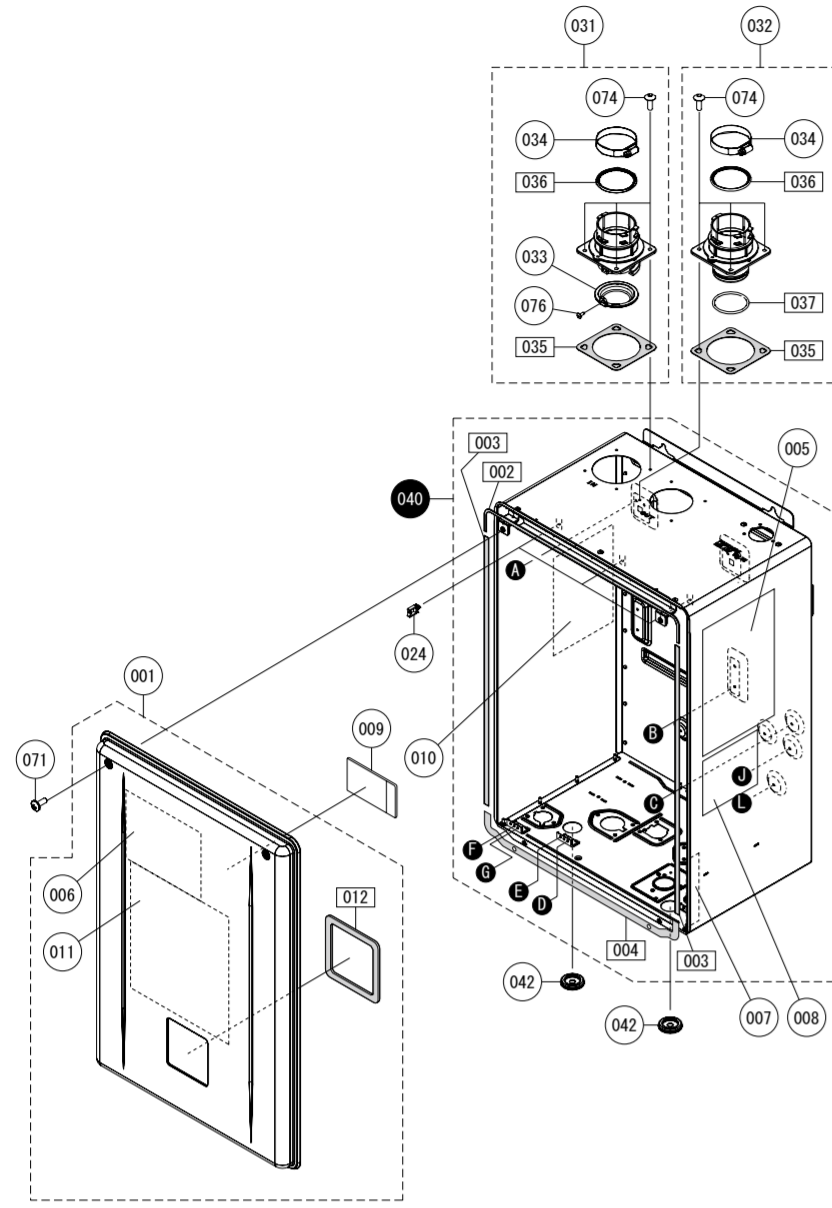


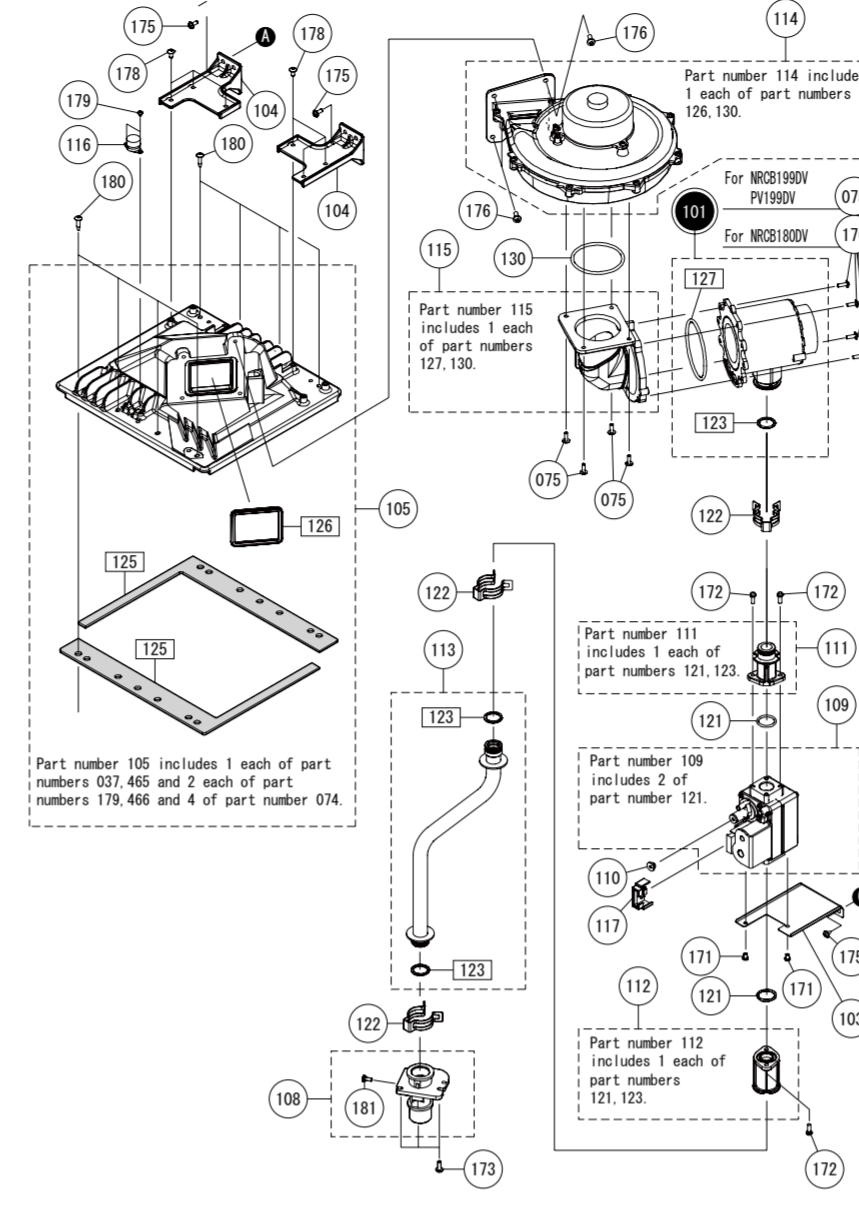
External outfitting NRCB199DV (GHQ-C3201WX-FF US)  
NRCB180DV (GHQ-C2801WX-FF US)  
PV199DV (GHQ-C3201WX-FF PB US)



External outfitting NRCB199DV (GHQ-C3201WX-FF US)  
NRCB180DV (GHQ-C2801WX-FF US)  
PV199DV (GHQ-C3201WX-FF PB US)

Part Nos	Part Names	Order Nos	Q'ty/unit
001	Front Cover - GHQ-C3201WX-FF US / GHQ-C3201WX-FF US	SKJ72FU	1<NRCB Series> 1<PV Series>
002	Gasket - Front Cover Top	FABL011	1
003	Gasket - Front Cover Sides	CVAL004	2
004	Gasket - Front Cover Top and Bottom	MAFL015	1
005	Label - Outside Front Cover Caution Label	ELVK003	1
006	Label - Inside Front Cover Caution Label	EYSK006	1
007	Label - Terminal Block	FABK011	1
008	Label - Rating Plate UV	FABK151	1
009	Parts List/Technical sheet	FABK251	1
010	Label - Energy Guide 199kbtuh - LP	FADK006	1<NRCB199DV LP>
	Label - Energy Guide 199kbtuh - NG	FADK007	1<NRCB199DV NG>
	Label - Energy Guide 199kbtuh - LP	FDAK036	1<PV199DV LP>
	Label - Energy Guide 199kbtuh - NG	FDAK037	1<PV199DV NG>
	Label - Energy Guide 180kbtuh - LP	FAEK006	1<NRCB180DV LP>
	Label - Energy Guide 180kbtuh - NG	FAEK007	1<NRCB180DV NG>
011	Wiring Diagram	FADK002	1
012	Gasket - Operation Panel	FADL001	1
013	Wire Clamp	7559402	3
014	Intake Flue w/ O-Ring and Gasket (SET)	SKJ71R1	1
015	Exhaust Flue w/ O-Ring and Gasket (SET)	SKJ71R2	1
016	Filter - Intake Air	FABF101	1
017	Clamp - Exhaust Pipe	FABF108	2
018	Gasket - Exhaust Flue	FABL101	2
019	O-Ring - Exhaust Pipe	FABL102	2
020	O-Ring - Exhaust Flue	FABL103	1
021	Gase - GHQ-C32 (28) 01WX-FF US	SKJ721P	1
022	Wire Grommet - Rubber	7355009	2
023	Screw - Front Cover with washer MAX12 S410		
024	Screw - Pre-Coated Machined MAX12 S410		
025	Screw - Remote Terminal MAX10 S430		

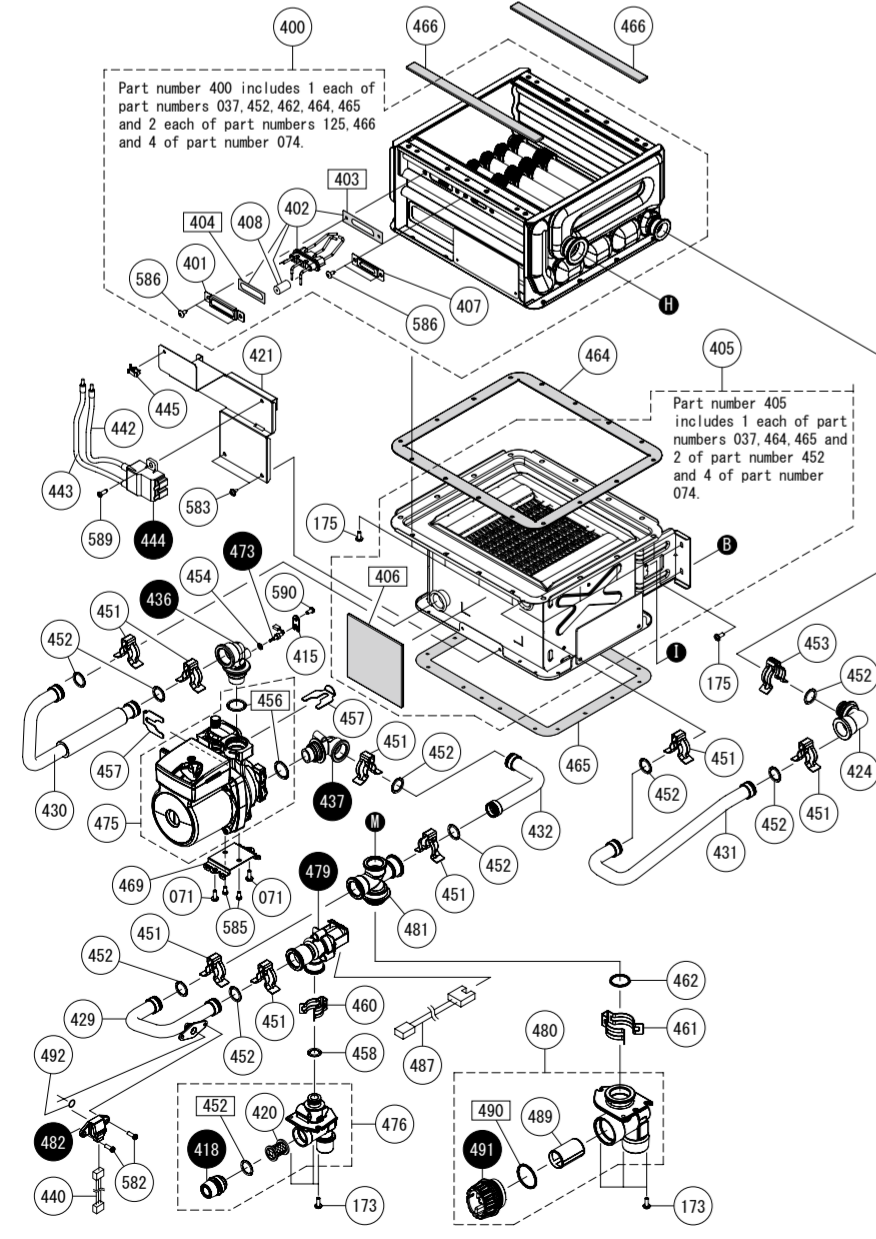
Combustion unit and gas route NRCB199DV (GHQ-C3201WX-FF US)  
NRCB180DV (GHQ-C2801WX-FF US)  
PV199DV (GHQ-C3201WX-FF PB US)



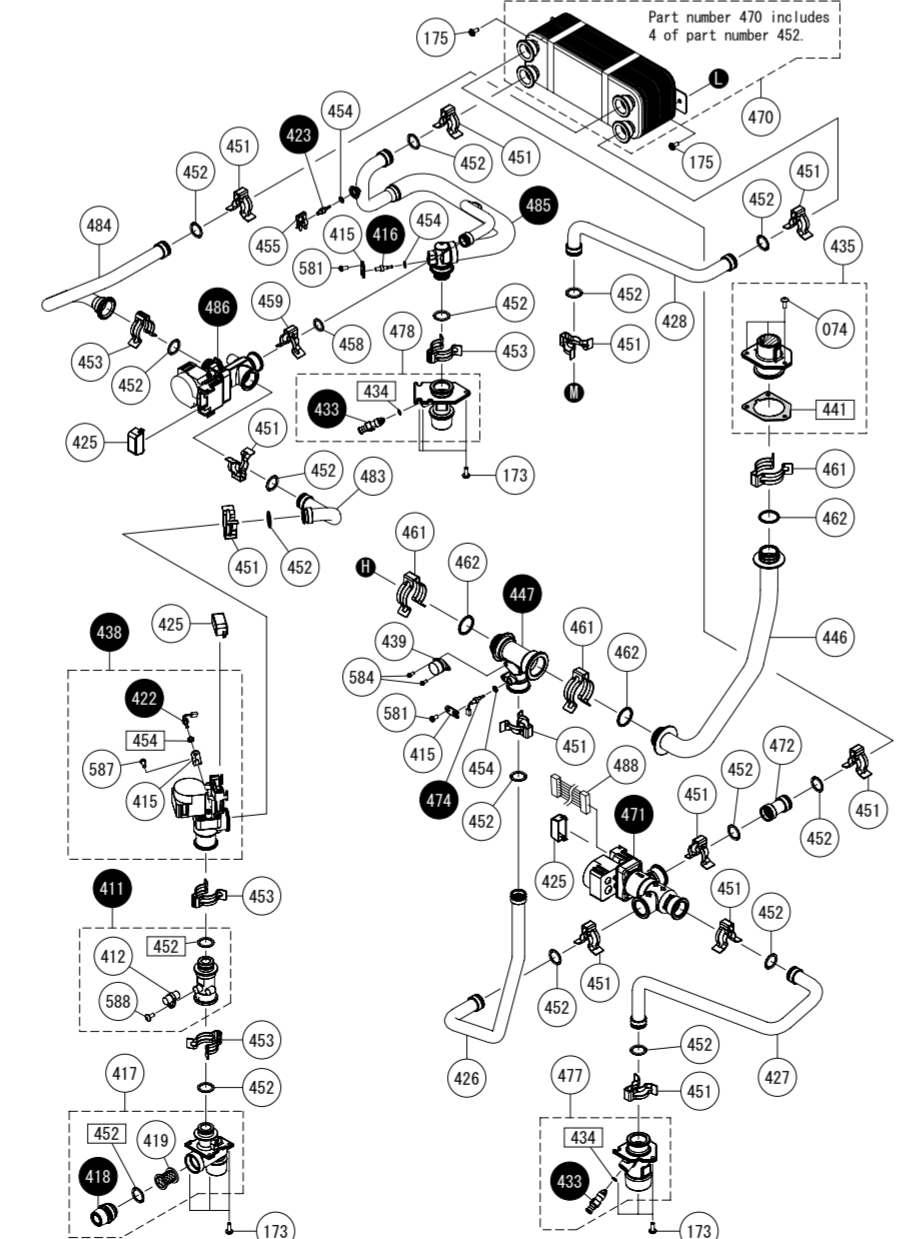
Combustion unit and gas route NRCB199DV (GHQ-C3201WX-FF US)  
NRCB180DV (GHQ-C2801WX-FF US)  
PV199DV (GHQ-C3201WX-FF PB US)

Part Nos	Part Names	Order Nos	Q'ty/unit
101	Venturi 199kbtuh - LP (SET)	SKJ724U	1<NRCB199DV, PV199DV LP>
	Venturi 199kbtuh - NG (SET)	SKJ724E	1<NRCB199DV, PV199DV NG>
	Venturi 180kbtuh - LP (SET)	SKJ724S	1<NRCB180DV LP>
	Venturi 180kbtuh - NG (SET)	SKJ724V	1<NRCB180DV NG>
103	Mounting Plate - Gas Valve	FABJ101	1
104	Mounting Plate - Chamber	FABD031	2
105	Burner Chamber (SET)	SKJ724U	1
108	Inlet Gas Connection w/ Screw (SET)	ELVE021	1
109	Gas Valve (SET)	SKJ71R8	1
110	Cover - Offset Adjustment	FABE011	1
111	Gas Valve Outlet Connector (SET)	SKJ71UY	1
112	Gas Valve Inlet Connector (SET)	SKJ71VX	1
113	Gas Pipe (SET)	SKJ71VY	1
114	Fan Motor w/ Housing	SKJ724V	1
115	Gas Elbow Connector 199kbtuh (SET)	SKJ71R8A	1<NRCB199DV, PV199DV>
	Gas Elbow Connector 180kbtuh (SET)	SKJ71R8B	1<NRCB180DV>
116	High Limit Switch - 320	FABH002	1
117	Cover - Gas Valve Connector	FABJ032	1
121	O-Ring - P20	2192004	2
122	C Clamp - 16B	6340407	3
123	O-Ring - P18	2110903	3
125	Gasket - Burner	FABD002	1
126	Gasket - Chamber Inlet	FABL003	1
127	O-Ring - Venturi φ71	FABL016	1<NRCB199DV, PV199DV>
	O-Ring - Venturi φ60	FABL017	1<NRCB180DV>
130	O-Ring - Venturi φ60	FABL017	1
026	Screw - Long Mounting Machine MAX12 S430		
027	Screw - Short Mounting Machine MAX6 S430		
028	Screw - Long Mounting Machine with Spring Washer MAX12 S430		
029	Screw - Long Machine MAX12 S410		
030	Screw - Medium Machine 4X10 S410		
031	Screw - Mounting Machine M5X12 S430		
032	Screw - Medium Machine MAX10 S410 for Aluminum		
033	Screw - Short Machine M3X8 S410 for Aluminum		
034	Screw - Truss Head Self Drilling Tapping MAX18 S410		
035	Screw - Inlet and Manifold Gas MAX6	SAC6082	1

Hot-water feed route 1 NRCB199DV (GHQ-C3201WX-FF US)  
NRCB180DV (GHQ-C2801WX-FF US)  
PV199DV (GHQ-C3201WX-FF PB US)



Hot-water feed route 2 NRCB199DV (GHQ-C3201WX-FF US)  
NRCB180DV (GHQ-C2801WX-FF US)  
PV199DV (GHQ-C3201WX-FF PB US)



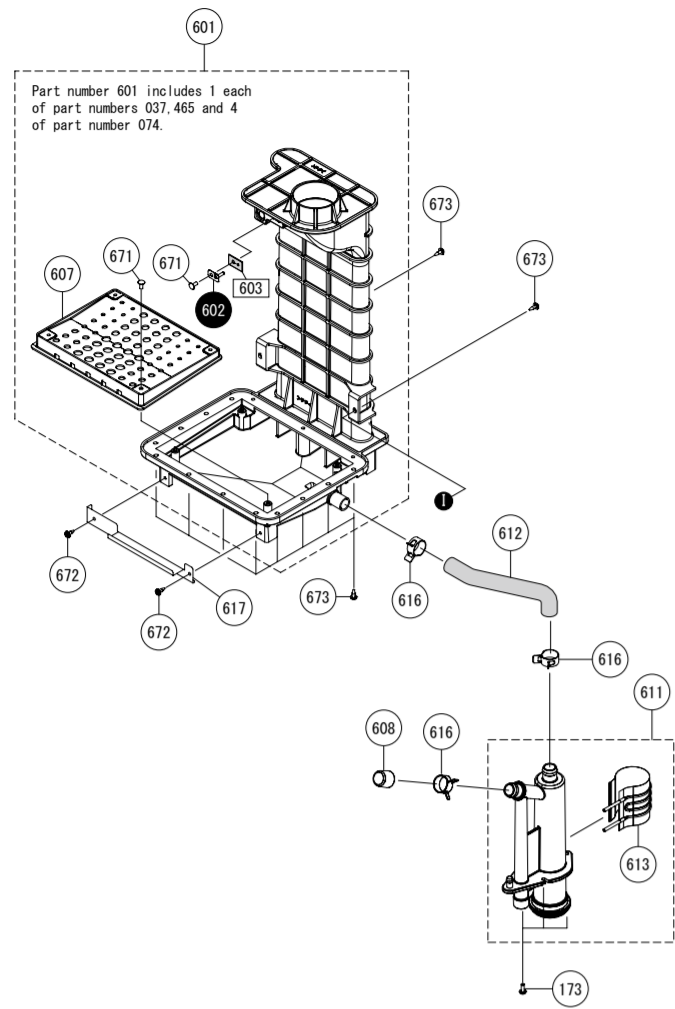
Hot-water feed route NRCB199DV (GHQ-C3201WX-FF US)  
NRCB180DV (GHQ-C2801WX-FF US)  
PV199DV (GHQ-C3201WX-FF PB US)

Part Nos	Part Names	Order Nos	Q'ty/unit
400	Heat Exchanger Kit - Primary SS (SET)	SKJ724U	1
401	Mounting Plate - Ignition Plug	FABD045	1
402	Ignition Plug w/ Gasket	SKJ71VZ	1
403	Gasket - Ignition Plug (HEX)	FABL008	1
404	Gasket - Ignition Plug (Mounting Plate)	FABL010	1
405	Heat Exchanger Kit - Secondary SS (SET)	SKJ727W	1
406	Gasket - Secondary SS (Front)	FABL015	1
407	Burner Window (SET)	FABD042	1
408	Plug Cover	FABL019	1
409	Water Flow Sensor (SET)	EPAD001	1
410	Magnetic Sensor - Flow Sensor	BWC0093	1
411	Thermistor Holding Plate	ALS0088	4
412	Thermistor - White - 064	BWC0098	1
413	Inlet Water Connection (SET)	ERW0001	1
414	Water Filter Cap	DTJ0006	2
415	Water Filter	EGD0032	1
416	Water Filter - Igniter	EGD0032	1<for after sales service>
417	Mounting Plate - Igniter	FABD032	1
418	Thermistor - White - M64	BWC0096	1
419	Thermistor - White - 063	BWC0097	1
420	Water Connector - Elbow	DTJ0002	1
421	Wire Cover - Servo	EBD0003	3
422	Pipe - T-Elbow to 3-Way Valve - Heating	FADD121	1
423	Pipe - 3-Way Valve - Heating to Heating Supply Connection	FADD123	1
424	Pipe - Plate Heat Exchanger to Heating Return Connector	FADD126	1
425	Pipe - Auto Feeder to Heating Return Connector	FADD129	1
426	Pipe - Pump Outlet - Elbow to Secondary SS HEX	FADD130	1
427	Pipe - Secondary SS HEX to Primary SS HEX	FADD133	1
428	Pipe - Heating Return Connector to Pump Inlet - Elbow	FADD135	1
429	O-Ring - High Temp P3	CRD0003	2
430	Relief Valve Connection	SKJ7229	1
431	Pump Outlet - Elbow	FAD0261	1
432	Pump Inlet - Elbow	FAD0262	1
433	Water Servo - Main (SET)	JEBO051	1
434	High Limit Switch - 201	ELVH002	1
435	Wiring Harness - Heating Water Pressure Sensor	FADJ017	1
436	Gasket - Relief Valve Connection	FABL002	1
437	High Voltage Igniter Wire L175	ALSJ078	1
438	High Voltage Igniter Wire L220	ALSJ084	1
439	Igniter	FABJ100	1
440	Wire Clamp	S4E5367	1
441	Pipe - T-Elbow to Relief Valve Connection	FADD145	1
442	T-Elbow	FADD147	1
443	C Clamp - Water Pipe 16-25	SAD6593	20
444	O-Ring - High Temp P16	3223302	2
445	C Clamp - Water Pipe 16A	6340300	5
446	O-Ring - Thermistor High Temp P4	1323709	5
447	C Clamp - Thermistor	CRUD055	1
448	O-Ring - High Temp P20	3053502	2
449	Pump Clip	FADD002	2
450	O-Ring - High Temp P12.5	3559808	2
451	C Clamp - Water Pipe 13-22	SAD6537	1
452	C Clamp - Water Pipe 12.7	6340202	1
453	C Clamp - Water Pipe 22.22	6340504	4
454	O-Ring - High Temp P22	7573308	4
455	Gasket - Secondary Heat Exchanger	FABL004	1
456	Gasket - Exhaust Duct	FABL005	1
457	Gasket - Primary Heat Exchanger	FABL013	2
458	Mounting Plate - Pump	FADA023	1
459	Plate Heat Exchanger (SET)	SKJ724X	1
460	O-Ring - Heating (SET)	ERD0210	1
461	Pipe - 3-Way Valve - Heating to Plate Heat Exchanger	E3M0069	1
462	Thermistor - Blue	E2M0001	1
463	Thermistor - Pink	E2M0003	1

Hot-water feed route NRCB199DV (GHQ-C3201WX-FF US)  
NRCB180DV (GHQ-C2801WX-FF US)  
PV199DV (GHQ-C3201WX-FF PB US)

Part Nos	Part Names	Order Nos	Q'ty/unit
475	Circulation Pump (SET)	SKJ724H	1
476	Auto Feeder Inlet Water Connection (SET)	FAD0021	1
477	Heating Supply Connection (SET)	FAD0025	1
478	Outlet Water Connection (SET)	FAD0027	1
479	Auto Feeder	FAD0031	1
480	Heating Return Connection (SET)	FAD0032	1
481	Heating Return Connector	FAD0234	1
482	Heating Water Pressure Sensor	FAD0041	1
483	Pipe - Water Servo - Main to Bypass Valve - DHW	FAD0099	1
484	Pipe - Bypass Valve - DHW to Plate Heat Exchanger	FAD0101	1
485	Pipe - Plate Heat Exchanger to Outlet Water Connection (SET)	FAD0105	1
486	Bypass Valve - DHW (SET)	JLRD015	1
487	Wiring Harness - Auto Feeder	ERB0305	1
488	Wiring Harness - 3-Way Valve - Heating	ENSJ026	1
489	Water Filter	EMD0041	1
490	O-Ring - Inlet Water Connection Cap	SAB4190	1
491	Inlet Water Connection Cap	FAD0228	1
492	O-Ring - High Temp P6	3264408	1
581	Screw - Short Machined MAX8 S410		
582	Screw - Long Machined MAX12 S410		
583	Screw - Short Tapping MAX8 S410		
584	Screw - Short Mounting Machine with Spring Washer M3X8 S430		
585	Screw - Round Head Short Tapping M5X8 S410		
586	Screw - Medium Machine MAX10 P5550		
587	Screw - Round Head Medium Tapping MAX10 S410		
588	Screw - Round Head Medium Tapping MAX10 S305		
589	Screw - Long Mounting Machine MAX12 S430		
590	Screw - Round Head Long Tapping MAX12 S410		

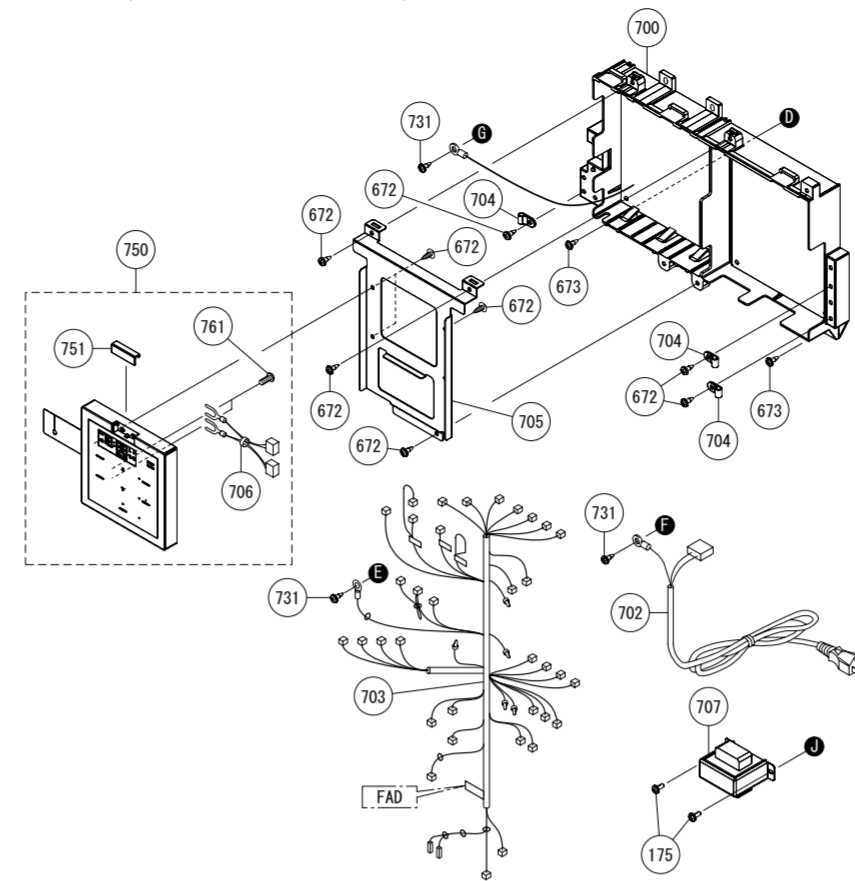
Condensate feed route NRCB199DV (GHQ-C3201WX-FF US)  
 NRCB180DV (GHQ-C2801WX-FF US)  
 PV199DV (GHQ-C3201WX-FF PB US)



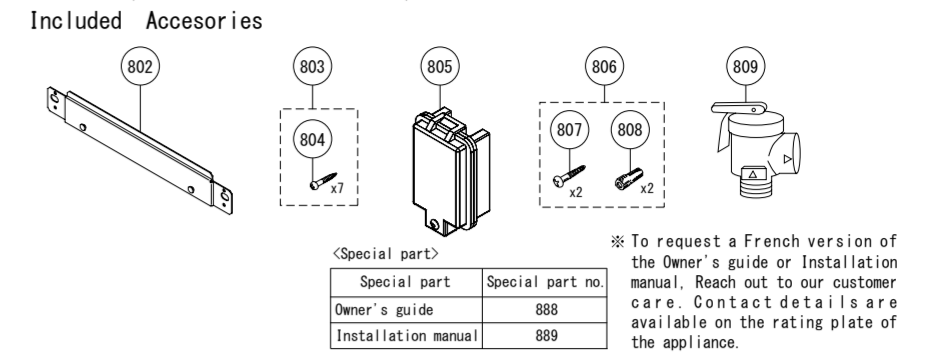
Condensate feed route NRCB199DV (GHQ-C3201WX-FF US)  
 NRCB180DV (GHQ-C2801WX-FF US)  
 PV199DV (GHQ-C3201WX-FF PB US)

Part Nos	Part Names	Order Nos	Q'ty/unit
601	Exhaust Duct (SET)	SKJ721N	1
602	Thermistor - Exhaust	ETH8002	1
603	Gasket - Exhaust Thermistor	ETH8004	1
607	Condensate Drainage Plate	FABF035	1
608	Drain Cap	FABF056	1
611	Condensate Container (SET)	SKJ723C	1
612	Drain Hose - Exhaust Duct	FADF001	1
613	Freeze Prevention Heater - Condensate Container	ETH8004	1
616	Clamp - Condensate Hose NO. 45	SAD6536	3
617	Mounting Plate - Circuit Board	FAD4024	1
671	Screw - Medium Tapping M4X10 S410		
672	Screw - Remote Terminal Cover M4X12 S410		
673	Screw - Long Tapping M4X12 S410		

Electronic control unit  
 NRCB199DV (GHQ-C3201WX-FF US) · NRCB180DV (GHQ-C2801WX-FF US)  
 PV199DV (GHQ-C3201WX-FF PB US)



Included Accessories  
 NRCB199DV (GHQ-C3201WX-FF US) · NRCB180DV (GHQ-C2801WX-FF US)  
 PV199DV (GHQ-C3201WX-FF PB US)



Electronic control unit and Included Accessories  
 NRCB199DV (GHQ-C3201WX-FF US) · NRCB180DV (GHQ-C2801WX-FF US)  
 PV199DV (GHQ-C3201WX-FF PB US)

Part Nos	Part Names	Order Nos	Q'ty/unit
700	Circuit Board	SKJ7135	1
702	Power Supply Cord	ERL4001	1
703	Wiring Harness - GHQ-C32 (28)01WX-FF US	SKJ725D	1
704	Wire Clamp - Nylon #4	7287909	3
705	Mounting Plate - Operation Panel	FAD4022	1
706	Wiring Harness - Operation Panel	FAD4016	1
707	Transformer	FAD4051	1
731	Screw - Small Tapping w/o collar M4X8 S410		
750	Operation Panel - RC-B201M (SET)	QNC4035	1
751	Operation Panel Top Cover	QNC4003	1
761	Screw - Round Head Machine M3X6 S430		
800	Box - GHQ-C32 (28)01WX-FF US	SKJ713G	1 (NRCB Series)
801	Box - GHQ-C3201WX-FF PB US	SKJ7228	1 (PV Series)
802	Wall Mounting Plate	FAB4103	1
803	Wood Screw Set7	SAD2028	1
804	Screw - Round Head Wood 4.8X38 S305		
805	Outdoor Temperature Sensor	FAD4001	1
806	Screw Package - Remote(SET)	QQA100	1
807	Screw - Round Head Wood M4.1X25 S305		
808	Dry Nail AnchorsS25		
809	Pressure Relief Valve for Heating	FAD4002	1
888	Owner's Guide - GHQ-C32 (28)01WX-FF US	SBB8009	1 (NRCB Series)
889	Owner's Guide - GHQ-C3201WX-FF PB US	SBB819H	1 (PV Series)
889	Installation Manual - GHQ-C32 (28)01WX-FF US	SBB800B	1 (NRCB Series)
889	Installation Manual - GHQ-C3201WX-FF PB US	SBB819J	1 (PV Series)
961	Quick Connect Cord - QC-2	Q706377	1
963	Wire Clamp - Nylon #3	7223901	2
964	Installation Manual - QC-2	S408992	1
981	Screw Kit	SKJ7220	1
982	O-Ring Kit	SKJ7221	1
990	Wall Mounting Plate - Operation Panel	QNC4020	1
996	Screw - Round Head Machine M3X6		
997	Screw - Flat Head Wood M4.1X20		

### Procedure for Flushing the Plate Heat Exchanger

This procedure is only intended for use by a qualified service professional or authorized Service Representative. Any unauthorized use of this procedure may result in voiding the warranty. Reach out to our customer care for additional support. Contact details are available on the rating plate of the appliance.

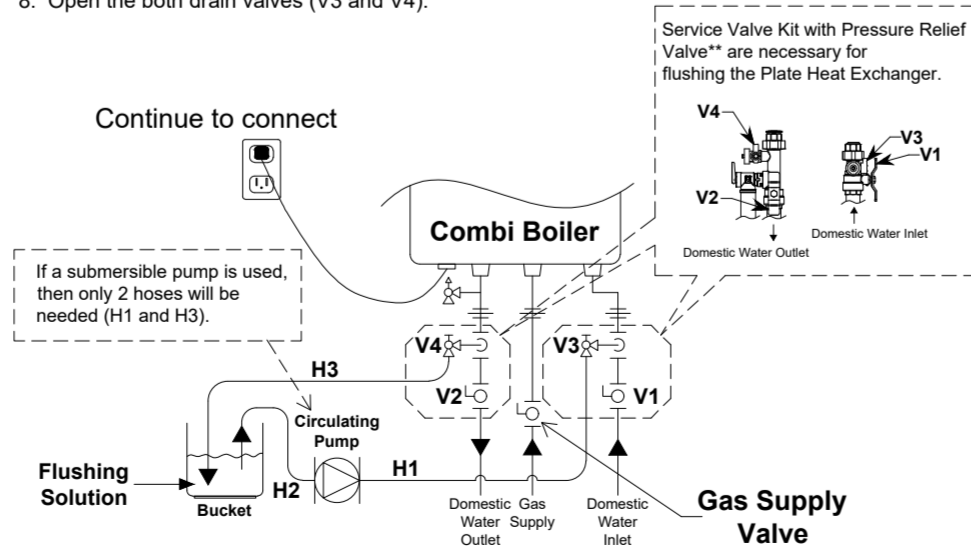
To prevent damage to the Plate Heat Exchanger from Scale Build-up, the Plate Heat Exchanger needs to be flushed\* to remove the Scale Build-up. Damage to the Combi Boiler due to Scale Build-up is not covered by the Combi Boiler's warranty. \* Connect the blue connector marked "FLUSH" for flushing near the Circuit Board when flushing the Plate Heat Exchanger.

The Combi Boiler must remain connected to electrical power when flushing the Plate Heat Exchanger.

### Basic Procedure

«Procedure 1. The preparation of the flushing system»

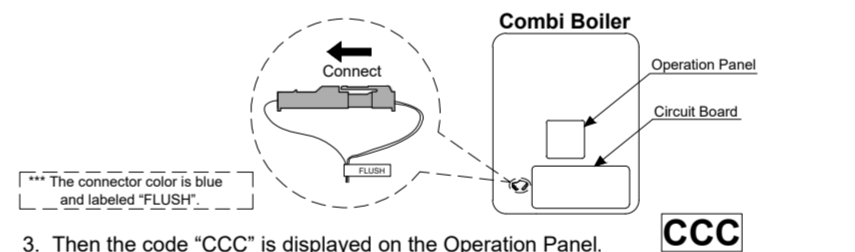
- Close the gas supply valve.
- Close the Domestic Water Inlet valve (V1) and the Domestic Water Outlet valve (V2).
- Connect the one drain hose (H1) to the drain valve (V3), and then the other to the circulating pump.
- Connect the drain hose (H2) to the circulating pump.
- Connect the drain hose (H3) to the drain valve (V4).
- Pour 1 gallon of "Calcium, Lime and Rust Removal Product" and 1 gallon water into the bucket. Recommend "Calcium, Lime and Rust Removal Product" for flushing.
- Place the both drain hoses (H2 and H3) into the bucket filled with the flushing solution.
- Open the both drain valves (V3 and V4).



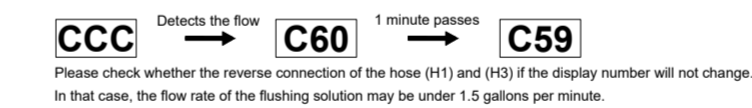
\*\* Service Valve Kit with Pressure Relief Valve may be purchased as an accessory from an authorized wholesaler. They allow for full diagnostic testing and easy flushing of the system. Refer to appliance's installation manual or reach out to our customer care, if more information is needed for flushing. Contact details are available on the rating plate of the appliance.

### «Procedure 2. Flushing the Heat Exchanger - For Single Unit»

- Open the Front Cover.
- Connect the blue connector\*\*\* marked "FLUSH" for flushing near the Circuit Board.



- Then the code "CCC" is displayed on the Operation Panel.
- Turn on the circulating pump to circulate the flushing solution through the Combi Boiler for 1 hour at a rate of 1.5 gallons per minute or more.
- The code "C60" is displayed on the Operation Panel when the Combi Boiler detects the flow of the flushing solution. When 1 minute passes, the code "C60" will change to "C59" on the Operation Panel.



- When 1 hour passes, the code "C00" is flashing on the Operation Panel. Do not disconnect the blue connector marked "FLUSH" for flushing.
- Turn off the circulating pump.

### «Procedure 3. Cleaning the Heat Exchanger»

The flushing solution needs to be rinsed and cleaned out of the Combi Boiler. Below is the way to rinse and clean the flushing solution.

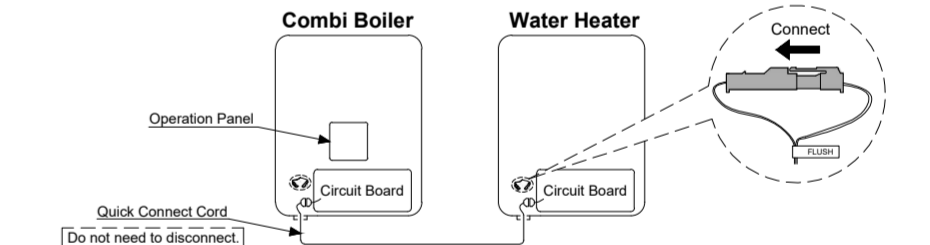
- Remove both drain hoses (H2 and H3) from the bucket. And then place the drain hose (H3) into the sink or outside to drain.
- Close the drain valve (V3) and then open the Domestic Water Inlet valve (V1). Do not open the Domestic Water Outlet valve (V2).
- Clean the Combi Boiler with fresh water for 3 minutes or more. (Needs to have enough time to clean the Combi Boiler.)
- Close the drain valve (V4) and then remove the drain hose (H3) from the drain valve (V4).
- Remove the drain hose (H1) from the drain valve (V3).
- Disconnect the blue connector marked "FLUSH" for flushing. The code "C00" goes out on the Operation Panel.

- Close the Front Cover.
- Open the gas supply valve and Domestic Water Outlet valve (V2).
- Check for correct operation of the Combi Boiler.

### In case of the "Quick Connect Multi System Procedure"

Note: Refer to the Water Heater's Parts List Sheet for the Water Heater's preparation of the flushing system.

- Connect the blue connector marked "FLUSH" for unit needing to be flushed. (The unit is isolated from Quick Connect Multi System when the blue connector marked "FLUSH" for flushing is connected. Not need to disconnect the Quick Connect Cord.)

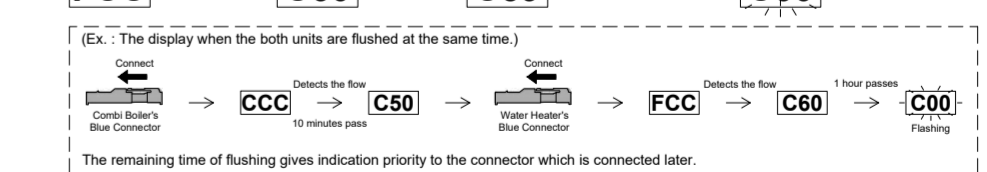


- Then the code "CCC" or "FCC" is displayed on the Display.

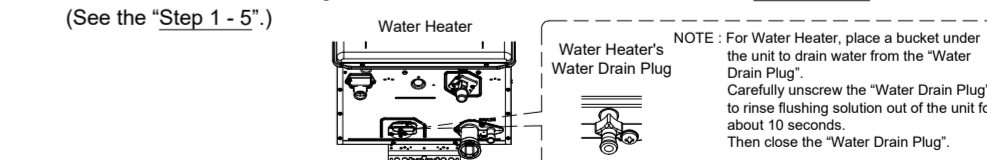
CCC is displayed when the Combi Boiler's blue connector is connected.

FCC is displayed when the Water Heater's blue connector is connected.

- Turn on the circulating pump to circulate the flushing solution through the units for 1 hour at a rate of 1.5 gallons per minute or more.
- When 1 hour passes, the code "C00" is flashing on the Display. Do not disconnect the blue connector marked "FLUSH" for flushing.



- Turn off the circulation pump.
- Rinse and clean the flushing solution out of the units in accordance with "Procedure 3". (See the "Step 1 - 5".)



- Disconnect the blue connector marked "FLUSH" for flushing. The Code "C00" goes out on the Operation Panel.
- Close the Front Covers.
- Open the gas supply valves and water outlet valves.
- Check for correct operation of the units.

Refer to appliance's installation manual or reach out to our customer care, if more information is needed for flushing. Contact details are available on the rating plate of the appliance.