

Installation Manual

NPE Condensing Water Heaters

Model

NPE-180A2
NPE-210A2
NPE-240A2
NPE-150S2
NPE-180S2
NPE-210S2
NPE-240S2



* Lead Free

Keep this manual near this water heater for future reference whenever maintenance or service is required.

* The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.



WARNING

If the information in these instructions is not followed exactly, a fire or explosion may result, causing property damage, personal injury or death.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

What to do if you smell gas

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

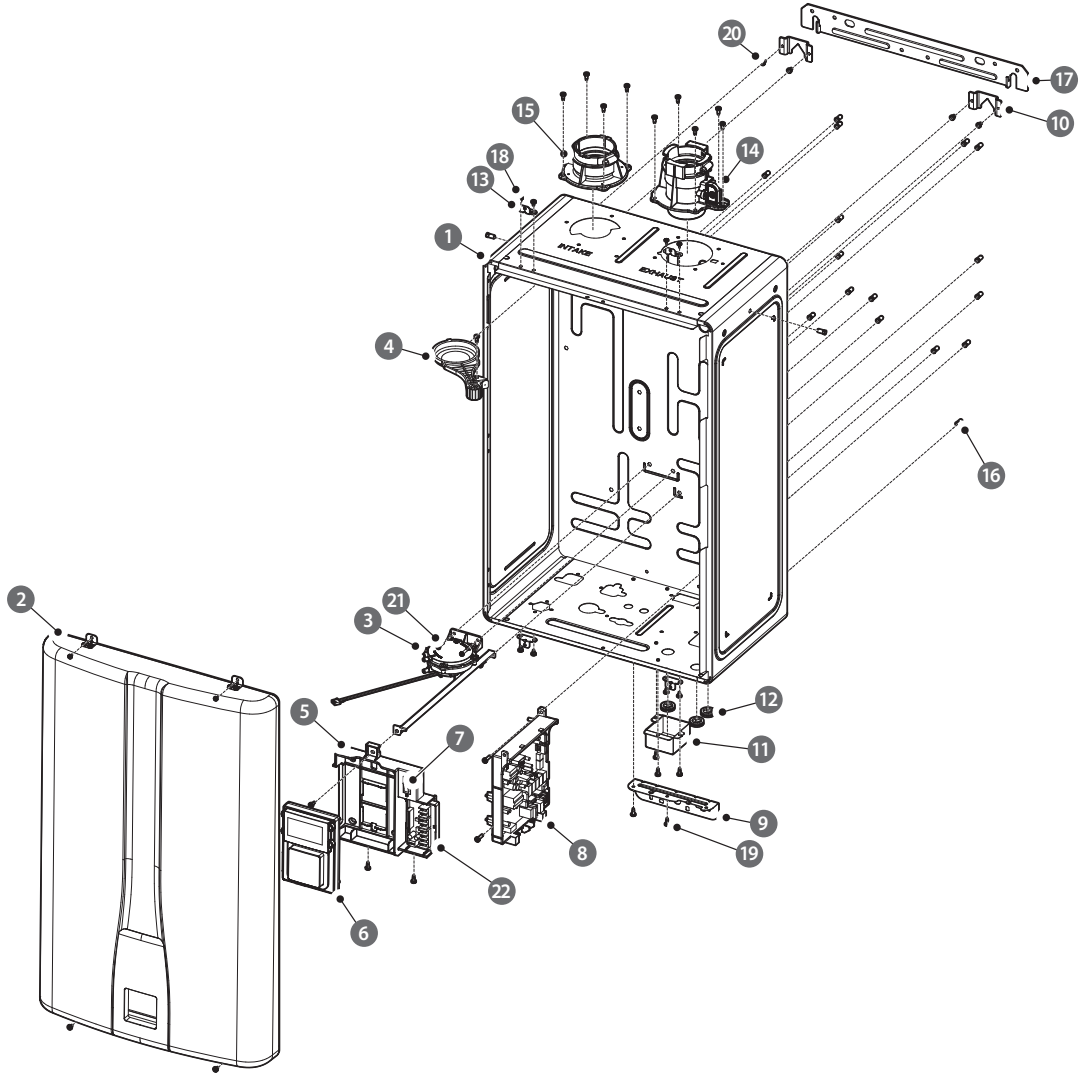
The installation must conform with local codes or, in the absence of local codes, the National Fuel Gas Code, ANSI Z223.1/NFPA 54 and/or CSA B149.1, Natural Gas and Propane Installation Code.

When applicable, the installation must conform with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 and/or CAN/CSA Z240 MH Series, Manufactured Home.

Do not install this water heater in a recreational vehicle, trailer, boat or other vehicular type unit as it will result in a Carbon Monoxide Poisoning Hazard.

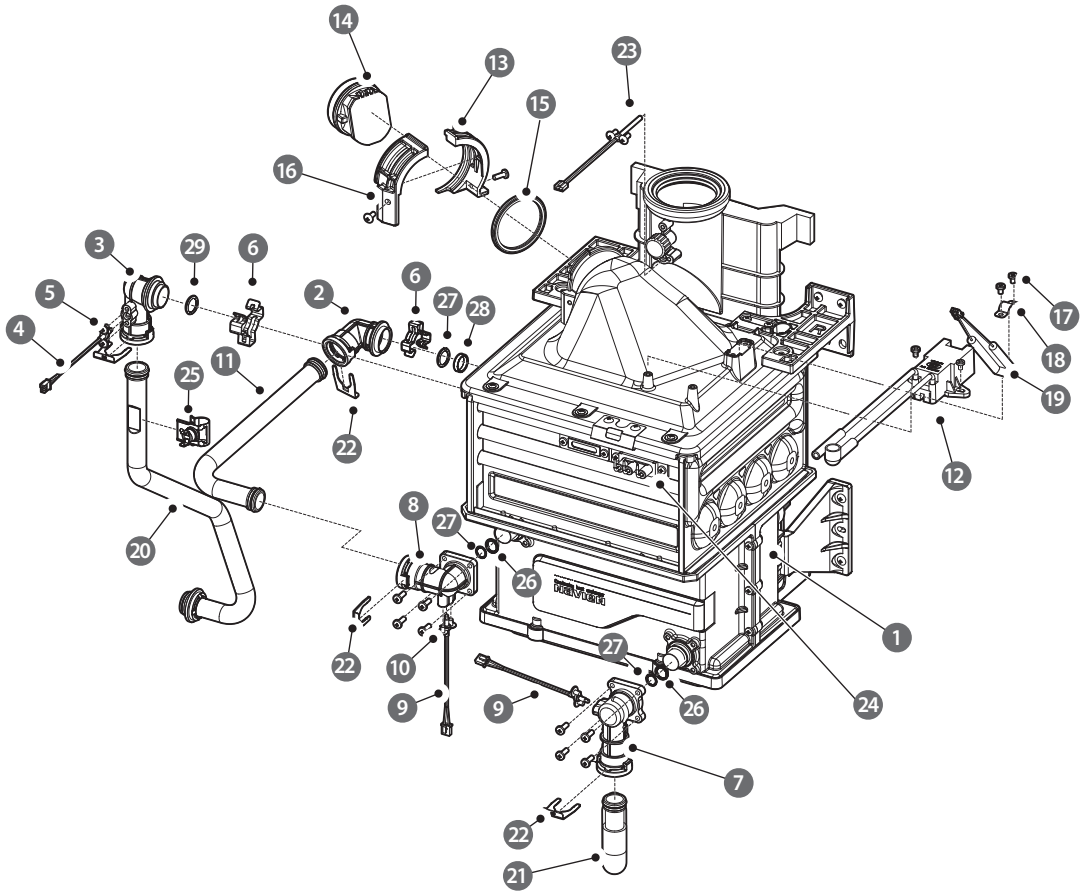
7.5 Component Assembly Diagrams and Parts Lists

7.5.1 Case Assembly



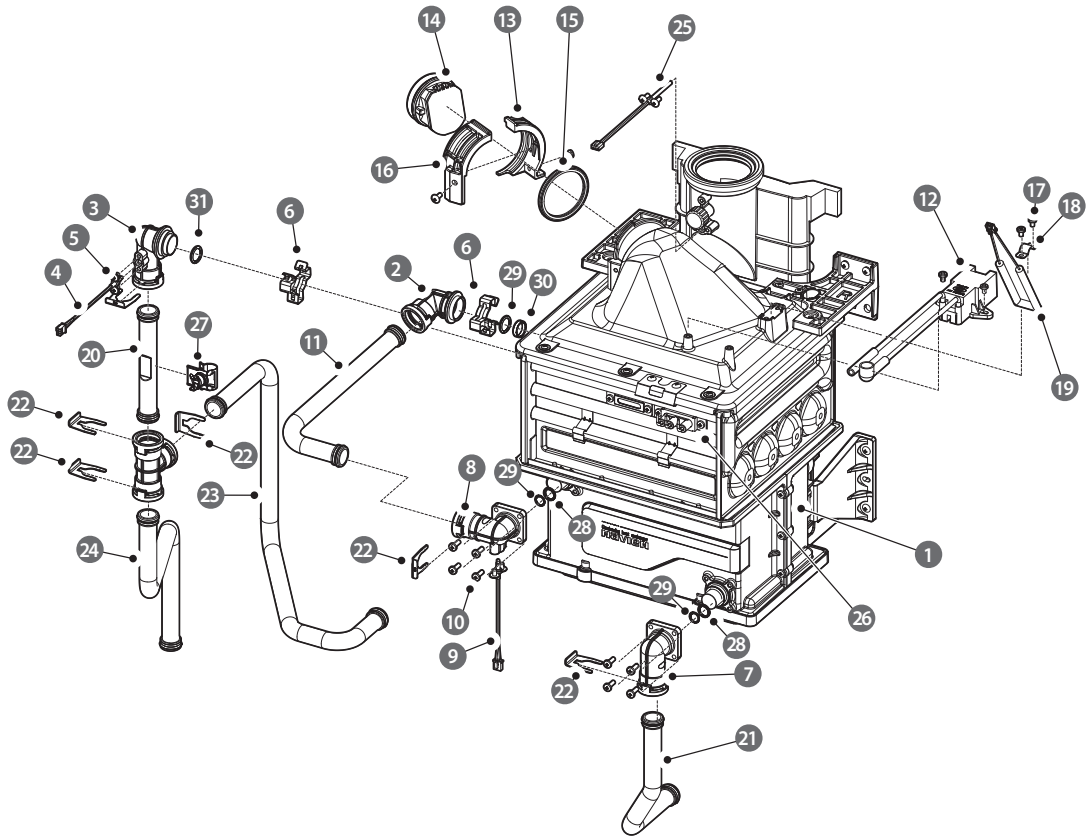
#	Description	Service Code	Part #	Remark
1	Case	-	20049732*	NPE-180A2/210A2/240A2
		-	20049515*	NPE-150S2/180S2/210S2/240S2
2	Cover	30026143A	30024855*	
3	Air Pressure Sensor	30021100A	30021100*	
4	Intake Air Filter	30016248B	30016248*	
5	Panel Bracket	-	20049470*	
6	Front Panel	30024955A	30024955*	
7	Power Switch	30009482A	30009482*	
8	PCB	30024835A	30024835*	NPE-180A2/210A2/240A2
		30024837A	30024837*	NPE-150S2/180S2/210S2/240S2
9	Case Bracket (Lower)	-	20048214*	
10	Case Bracket (Upper)	-	20049507*	
11	Junction Box	-	20046065*	
12	Rubber Ring	-	20025127*	
13	Case Bracket (Lock)	-	20049636*	
14	Exhaust Duct Assembly	30024848A	30024848*	
15	Intake Air Duct Assembly	30008662B	30008662*	
16	Pop nut	-	20047199*	
17	Wall Bracket	-	20007610*	
18	Screw, STS410, 4x6	-	20050522*	
19	Screw, STS410, 4x10	20049000A	20049000*	
20	Screw, STS430, M4x6	-	20050523*	
21	Screw, S18A, M4x14	-	20041463*	
22	Hotbutton	30025294A	30025294*	

7.5.2 Burner Assembly (NPE-180A2/ 210A2/ 240A2)



#	Description	Service Code	Part #	Remark
1	Heat Exchanger Assembly	30026111A	30024850*	NPE-210A2/240A2
		30026110A	30025104*	NPE-180A2
2	SC-Ex Inlet Adaptor	-	20049491*	
3	SC-Ex Outlet Adaptor	-	30024763*	
4	Thermistor	30008366A	30008366*	
5	Screw, S10A, 4x6	20017962A	20017962*	
6	Fastener	20007853A	20007853*	
7	Flow Sensor Assembly	30024866A	30024866*	
8	Latent-Ex Outlet Adaptor	-	30024764*	
9	Thermistor	30008366A	30008366*	
10	Screw, S10A, 4x6	20017962A	20017962*	
11	H-Ex Middle Pipe	-	30024769*	NPE-210A2/240A2
		-	30024768*	NPE-180A2
12	Ignition Transformer	30010455A	30010455*	
13	Fan Bracket (R)	-	20022096*	
14	Fan Damper	30008825A	30008825*	
15	Fan Packing	-	20022744*	
16	Fan Bracket (F)	20022095A	20022095*	
17	Screw, S18A, M4x6	-	20038859*	
18	Burner Fuse Bracket	-	20050642*	
19	Burner Fuse	30025036A	30025036*	
20	Hot Water Outlet Pipe	30024771A	30024771*	NPE-210A2/240A2
		30024770A	30024770*	NPE-180A2
21	Cold Inlet Pipe	30024767A	30024767*	NPE-210A2/240A2
		30024766A	30024766*	NPE-180A2
22	Pipe Clip	20045992A	20045992*	
23	Thermistor (Exhaust)	30009478A	30009478*	
24	Igniter	30025442A	30025442*	
25	High Limit Switch	30023954A	30023954*	
26	Packing (Ø26.5x2.4t)	-	20006868*	
27	O-ring (Ø17.5x2.7t)	20006949A	20006949*	
28	Backup Ring	-	20018744*	
29	O-ring (Ø21.7xØ3.5)	-	20033699*	

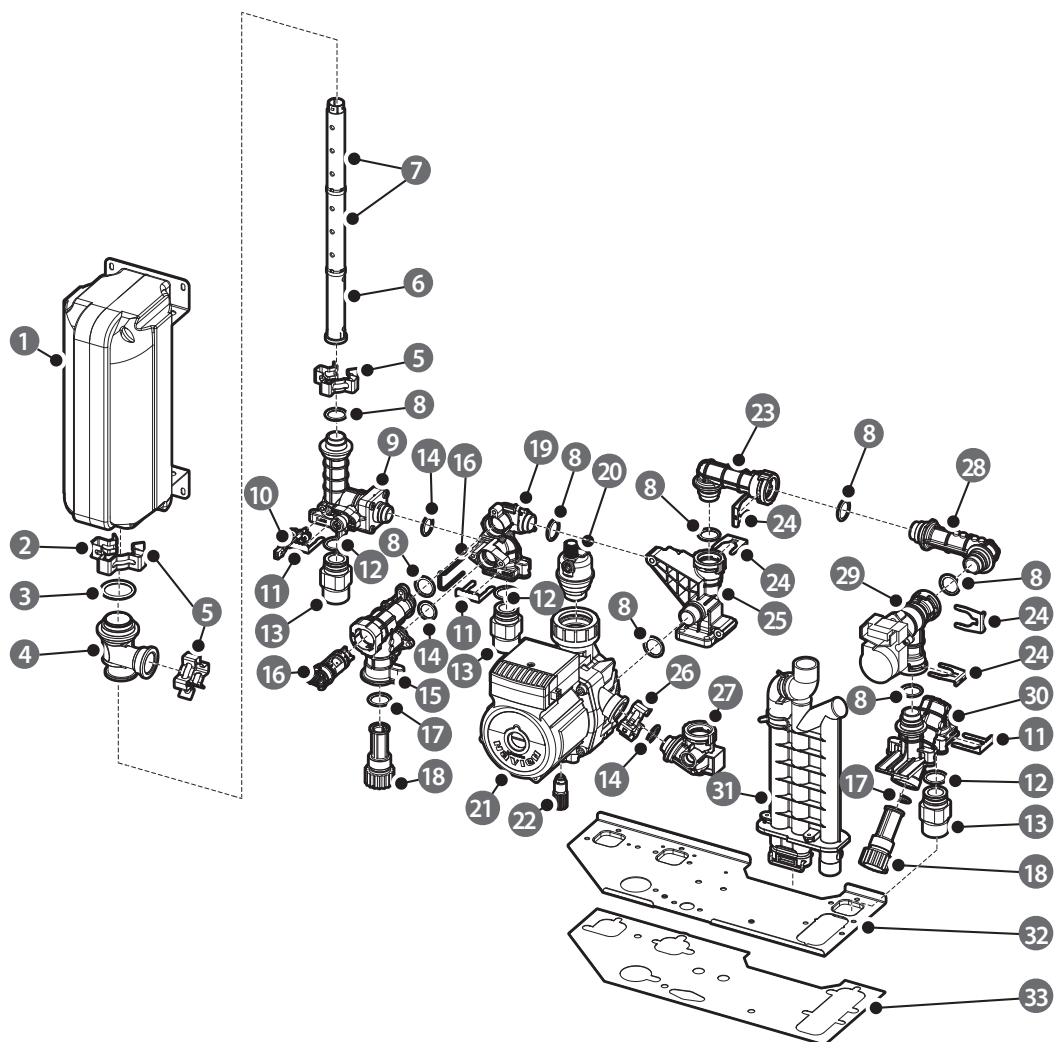
7.5.3 Burner Assembly (NPE-150S2/180S2/ 210S2/ 240S2)



#	Description	Service Code	Part #	Remark
1	Heat Exchanger Assembly	30026111A	30025252*	NPE-210S2/240S2
		30026110A	30025110*	NPE-180S2
		30026109A	30025477*	NPE-150S2
2	SC-Ex Inlet Adaptor	-	20049491*	
3	SC-Ex Outlet Adaptor	-	30024763*	
4	Thermistor	30008366A	30008366*	
5	Screw, S10A, 4x6	20017962A	20017962*	
6	Fastener	20007853A	20007853*	
7	Latent-Ex Inlet Adaptor	-	20049517*	
8	Latent-Ex Outlet Adaptor	-	30024764*	
9	Thermistor	30008366A	30008366*	
10	Screw, S10A, 4x6	20017962A	20017962*	

#	Description	Service Code	Part #	Remark
11	H-Ex Middle Pipe	-	30024769*	
		-	30024768*	
		-	30025435*	
12	Ignition Transformer	30010455A	30010455*	
13	Fan Bracket (R)	-	20022096*	
14	Fan Damper	30008825A	30008825*	
15	Fan Packing	-	20022744*	
16	Fan Bracket (F)	20022095A	20022095*	
17	Screw, S18A, M4×6	-	20038859*	
18	Burner Fuse Bracket	-	20050642*	
19	Burner Fuse	30025036A	30025036*	
20	Heat Exchanger Outlet Pipe	30024780A	30024780*	NPE-180S2/210S2/240S2
		30024779A	30024779*	NPE-150S2
21	Cold Inlet Pipe	30024778A	30024778*	NPE-210S2/240S2
		30024777A	30024777*	NPE-180S2
		30024776A	30024776*	NPE-150S2
22	Clip	20045992A	20045992*	
23	Mixing Pipe	30024784A	30024784*	NPE-210S2/240S2
		30024783A	30024783*	NPE-180S2
		30024782A	30024782*	NPE-150S2
24	Hot Water Outlet Pipe	30024787A	30024787*	NPE-210S2/240S2
		30024786A	30024786*	NPE-180S2
		30024785A	30024785*	NPE-150S2
25	Thermistor (Exhaust)	30009487A	30009478*	
26	Igniter	30025442A	30025442*	
27	High Limit Switch	30023954A	30023954*	
28	Packing (Ø26.5x2.4t)	-	20006868*	
29	O-ring (Ø17.5x2.7t)	20006949A	20006949*	
30	Backup Ring	-	20018744*	
31	O-ring (Ø21.7xØ3.5)	-	20033699*	

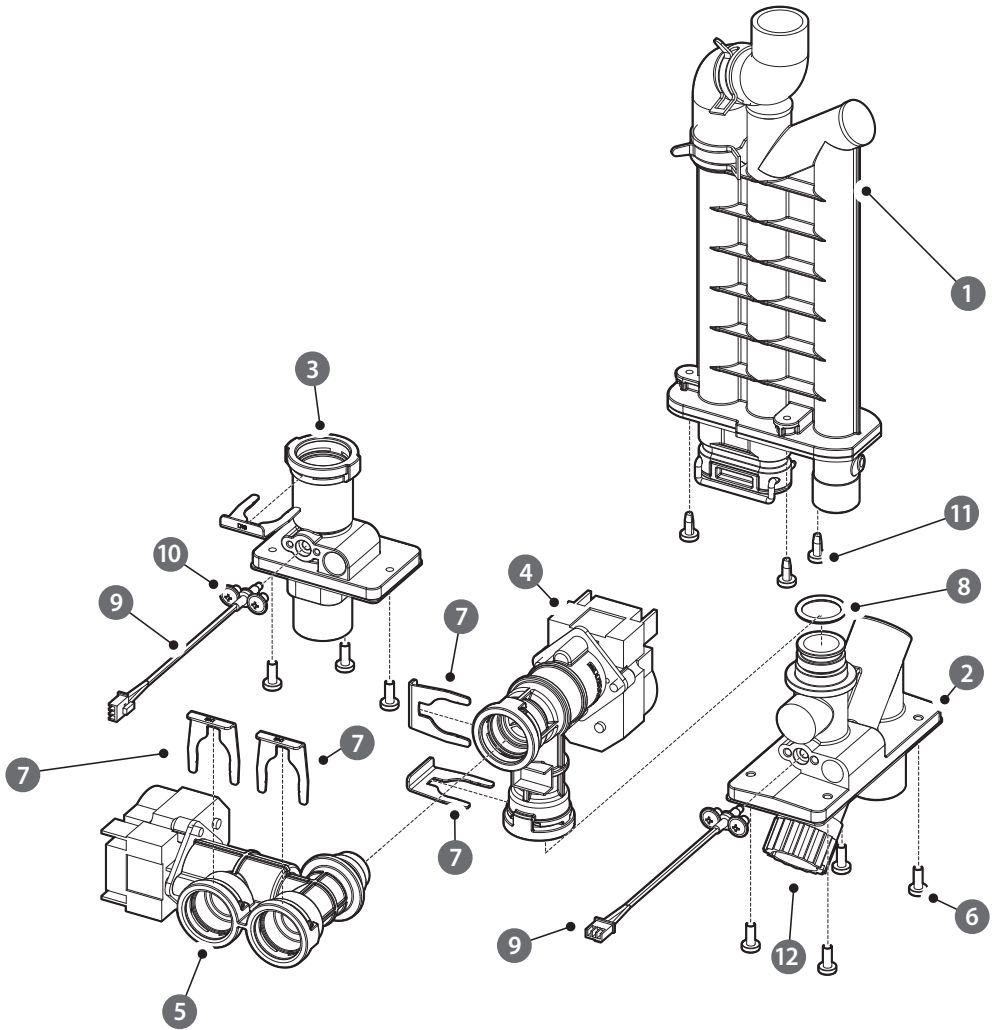
7.5.4 Waterway Assembly (NPE-180A2/210A2/240A2)



#	Description	Service Code	Part #	Remark
1	Buffer Tank	30016125A	30023708*	
2	Fastener	20017724A	20017724*	
3	O-RING (P29)	20017923A	20017923*	
4	Buffer Tank Adapter	20035697A	20035697*	
5	Fastener	-	20017726*	
6	Buffer Tank Pipe A	-	20017759*	
7	Buffer Tank Pipe B	-	20017760*	
8	O-RING (P18)	20006947A	20006947*	

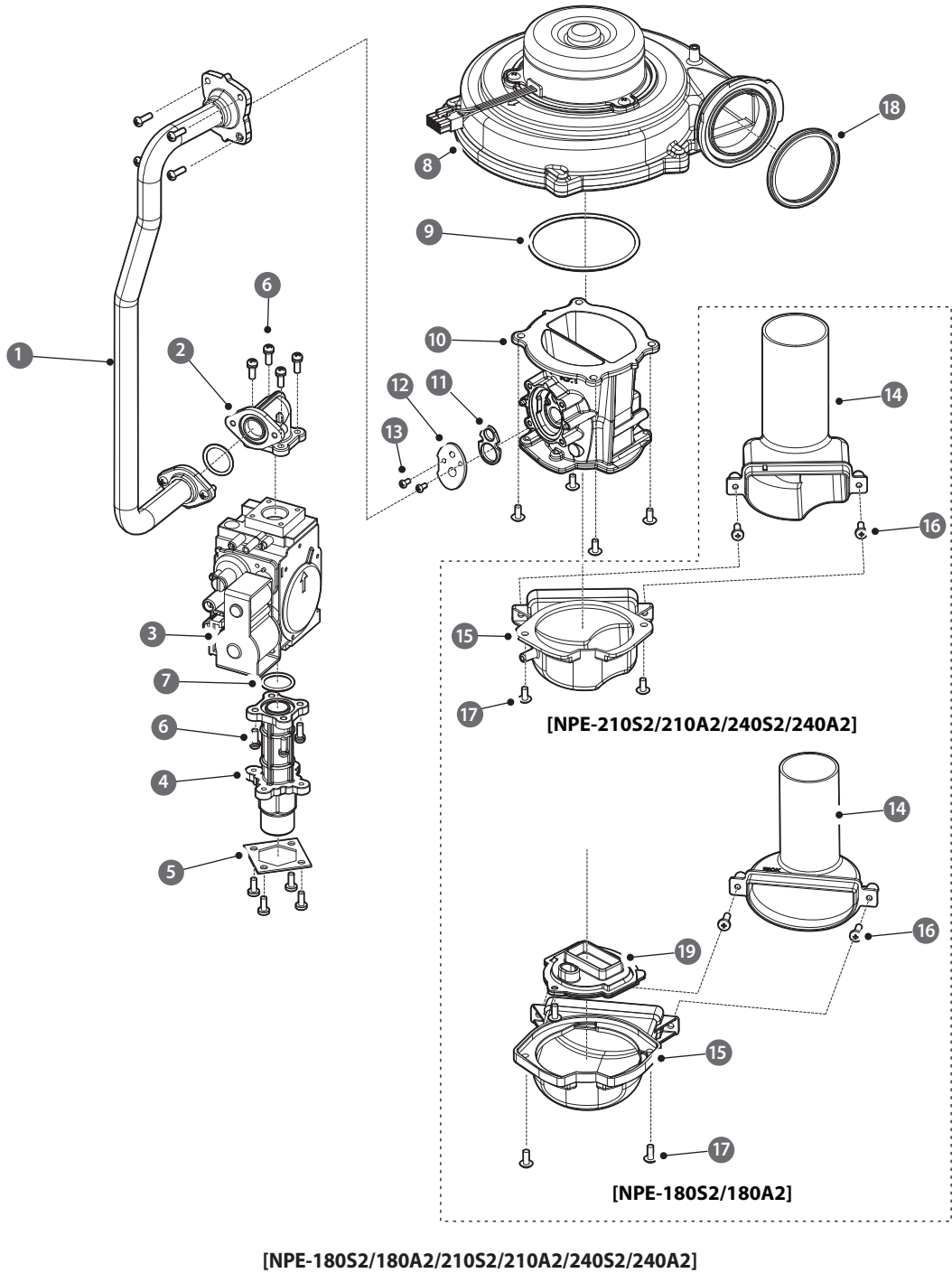
#	Description	Service Code	Part #	Remark
9	Hot Water Outlet Adapter	-	30008338*	
10	Thermistor	30008366A	30008366*	
11	Clip	20007733B	20007733*	
12	O-RING (P20)	20017212A	20017212*	
13	Pipe Adapter	20024496A	20024496*	
14	O-RING (P16)	20017210A	20017210*	
15	Check Valve Adapter	20048412A	20048412*	
16	Check Valve	-	30008360*	
17	O-RING (P19)	20017211A	20017211*	
18	Water Filter	30008171A	30008171*	
19	Return Connect Adapter	20048405A	20048405*	
20	Pump Air Separator	30014451A	30013056*	
21	Circulation Pump		30008355*	
22	Drain Plug		30008630*	
23	Pump Connect Adapter	20048418A	20048418*	
24	Clip	20045992A	20045992*	
25	Pump Inlet Adapter	20048414A	20048414*	
26	Fastener	20007859A	20007859*	
27	Pump Outlet Adapter	20048419A	20048419*	
28	WAV Outlet Adapter	20048415A	20048415*	
29	Water Adjust Valve	30024183A	30024183*	
30	Cold Water Adapter	20048454A	20048454*	
31	Syphon	30024921A	30024921*	
32	Bracket	-	20048396*	
33	Bracket Packing	-	20048400*	

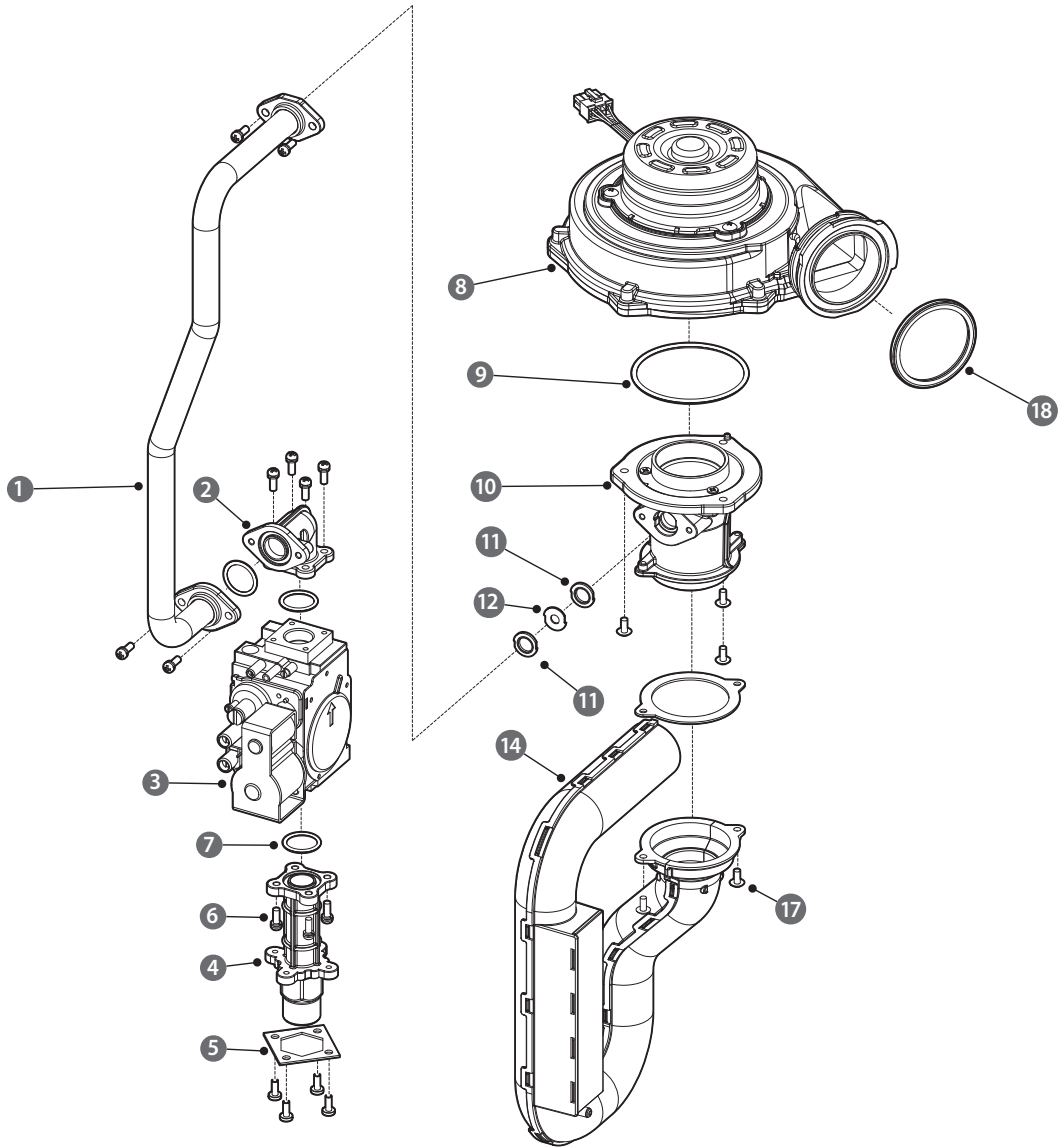
7.5.5 Waterway Assembly (NPE-150S2/180S2/210S2/240S2)



#	Description	Service Code	Part #	Remark
1	Syphon	30024921A	30024921*	
2	Cold Water Inlet Adapter	30024923A	30024923*	
3	Hot Water Outlet Adapter	-	30024924*	
4	Water Adjust Valve (Built in Flow Sensor)	30022123A	30022123*	
5	Mixing Valve	30022124A	30022124*	
6	Screw, STS430, M4×10	-	20038758*	
7	Clip	20045992A	20045992*	
8	O-RING (P18)	20006947A	20006947*	
9	Thermistor	30008366A	30008366*	
10	Screw, S10A, M4×6	-	20027618*	
11	Screw, STS410, 4×10	20049000A	20049000*	
12	Water Filter	30008171A	30008171*	

7.5.6 Fan (Gas) Assembly





[NPE-150S2]

#	Description	Service Code	Part #	Remark
1	Gas Pipe	30024773A	30024773*	NPE-210S2/240S2/210A2/240A2
		30024772A	30024772*	NPE-180S2/180A2
		30025069A	30025069*	NPE-150S2
2	Gas Connector	20018430A	20018430*	
3	Gas Valve	30011586B	30011586*	
4	Gas Inlet Adapter	20023809A	20023809*	
5	Gas Inlet Adapter Packing	-	20023581*	
6	Screw, S10A, M4x12	20006390A	20006390*	
7	O-Ring (P20)	20006934A	20006934*	
8	Fan Assembly	30015421A	30015421*	NPE-150S2
		30025295A	30025295*	NPE-180S2/180A2/210S2/210A2/ 240S2/240A2
9	O-Ring (G70)	20007001A	20007001*	NPE-150S2
	O-Ring (G75)	20018079A	20018079*	NPE-180S2/180A2/210S2/210A2/ 240S2/240A2
10	Single Venturi	30014688A	30014688*	NPE-150S2
	Dual Venturi	30024967A	30024967*	NPE-180S2/180A2
		30025251A	30025251*	NPE-210S2/240S2/210A2/240A2
11	Venturi Packing	20022660A	20022660*	
12	Gas Orifice	20049501A	20049501*	NPE-210S2/240S2/210A2/240A2 (NG)
		20050546A	20050546*	NPE-210S2/240S2/210A2/240A2 (LP)
		20049500A	20049500*	NPE-180S2/180A2 (NG)
		20050545A	20050545*	NPE-180S2/180A2 (LP)
		20029420B	20029420*	NPE-150S2 (NG)
		20034178A	20034178*	NPE-150S2 (LP)
13	Screw, S10A, M3x6, 3	-	20018065*	
14	Silence	-	20032570*	NPE-210S2/240S2/210A2/240A2
		-	20031242*	NPE-180S2/180A2
15	Silence Adapter	-	20032569*	NPE-210S2/240S2/210A2/240A2
		-	20049499*	NPE-180S2/180A2
16	Screw, S10A, 4x12	-	20006555*	
17	Screw, S18A, M4x10	-	20034293*	
18	Fan Packing	-	20022744*	
19	Reducer	-	30024970*	NPE-180S2/180A2