

WARNING

Do not install the condensate assembly if a component is lost or missing. Replace the entire assembly. Failure to follow this warning could result in property damage, serious personal injury, or death.

6. Fill the condensate trap with fresh water prior to reassembly on the appliance.

7. Install the condensate trap on the condensate hose from the heat exchanger. Use the hose clamp to secure the trap. Attach the clear plastic hose onto the hose barb. Reinstall the condensate hose clamp to detach the condensate trap from the drain tube.

WARNING

Do not operate the appliance without the clear hose attached from the hose barb to the pressure switch. Failure to follow this warning could result in property damage, serious personal injury, or death.

8. If a condensate neutralizer kit is installed with the appliance, check the assembly when cleaning the condensate trap, and replenish the limestone chips if necessary. When replacing the limestone chips, take care to ensure chips are no smaller than 1/2" to avoid blockage in condensate piping (for piping details, refer to condensate neutralizer installation instruction.)

9. Check condensate piping for sagging and/or leakage. Repair any sags or leaks before restoring power to the appliance.

CAUTION

It is very important that the condensate piping be no smaller than 3/4". To prevent sagging and maintain pitch, condensate piping should be supported with pipe supports, and pitched 1/4" per foot to allow for proper drainage.

CAUTION

The condensate line must remain unobstructed, allowing free flow of condensate. If condensate freezes in the line, or if line is obstructed in any other manner, condensate can exit from the tee, resulting in potential water damage to property.

10. If the appliance has a condensate pump, ensure the pump operates properly before considering maintenance complete.

REPLACEMENT PARTS

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
B-1	M3 X 6 PH + MS	7855P-384	B-10	M4 X 12 TH + M/S	7855P-393
B-2	M4 X 8 PH + Self Tapping	7855P-385	B-11	M4 X 14 PH + Self Tapping	7855P-394
B-3	M4 X 8 TH + Self Tapping	7855P-386	B-12	M4 X 15 PW + M/S	7855P-395
B-4	M4 X 8 TH + MS	7855P-387	B-13	M4 X 20 TH + Self Tapping	7855P-396
B-5	M4 X 10 FH + M/S	7855P-388	B-14	M5 X 14 Flange Bolts M/S	7855P-397
B-6	M4 X 10 TH + Self Tapping	7855P-389	B-15	M5 X 10 TH+ M/S	7855P-453
B-7	M4 X 10 TH + M/S	7855P-390	B-16	M4 X 9 PH.PW + Self Tapping	7855P-296
B-8	M4 X 10 Flat Head	7855P-391	N-1	M4 Nut	7855P-398
B-9	M4 X 12 PH + M/S	7855P-392	N-2	M5 Nut	7855P-399

Table 33 – Replacement Bolts and Nuts

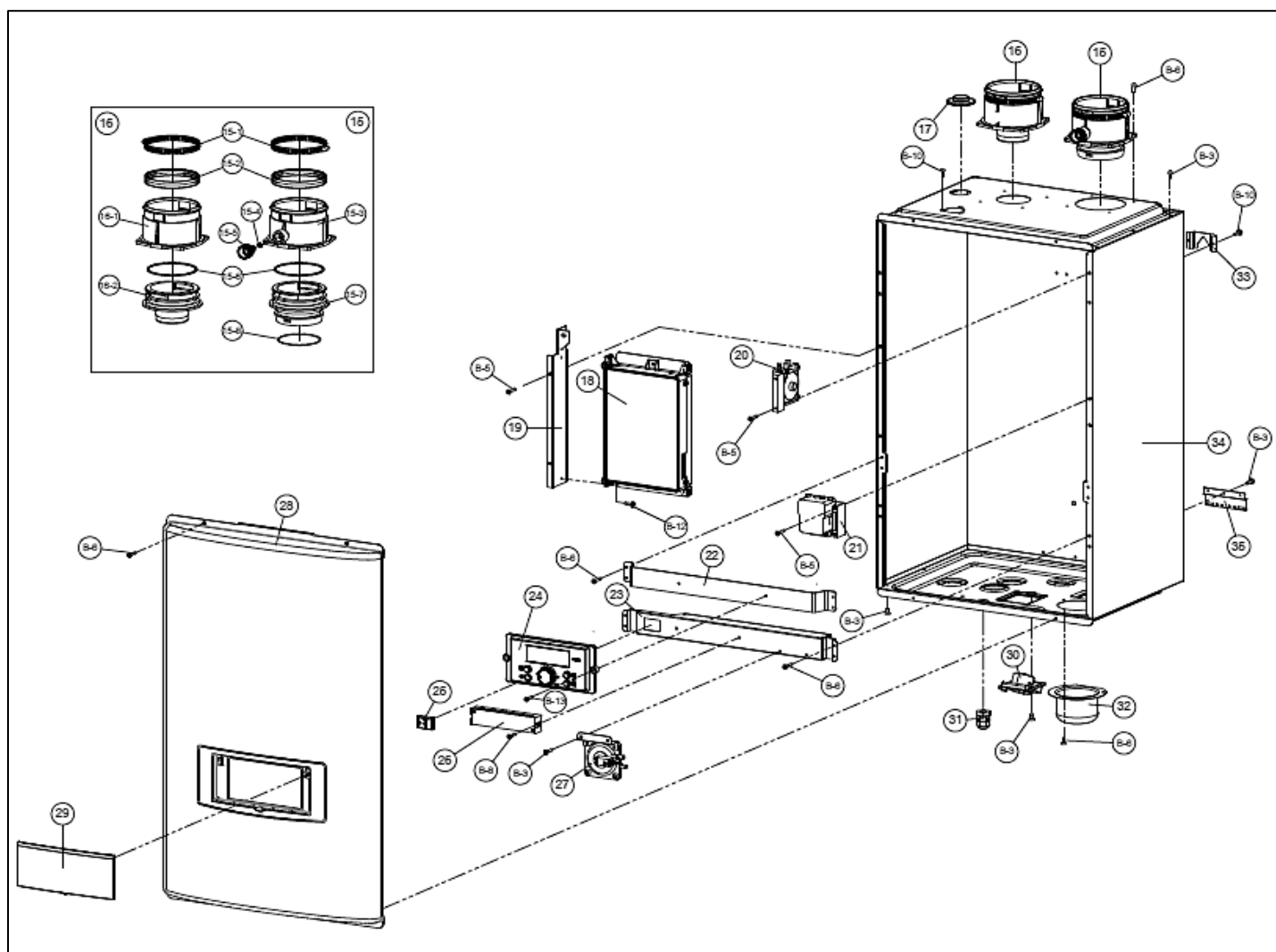


Figure 61 – Cabinet Replacement Parts – 140W Models

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
15	Exhaust Duct (Assembly)	7855P-002	21	Ignition Transformer	7855P-007
15-1	Exhaust/Intake Duct Clamps (Φ100)	7855P-332	22	Control Panel Bracket	7855P-219
15-2	Exhaust/Intake Gaskets	7850P-210	23	Power Switch Bracket	7855P-220
15-3	Exhaust Duct	7855P-333	24	Display Panel	7855P-012
15-4	Combustion Analyzer port Plug O-ring	7855P-334	25	Manual Power Switch	7855P-014
15-5	Combustion Analyzer port Plug	7855P-335	26	Terminal Block	7855P-015
15-6	Intake/Exhaust Adapter O-Ring (85 Φ)	7855P-256	27	Condensate Block APS	7855P-017
15-7	Exhaust Duct Inner Adapter	7855P-004	28	Front Cover	7855P-218
15-8	Exhaust Adapter O-Ring (75 Φ)	7855P-254	29	Display Panel Cover	7850P-023
16	Air Intake Cap (assembly)	7855P-003	30	CH Pressure Gauge	7855P-222
16-1	Air Intake Cap	7855P-337	31	Wire Gland	7855P-348
16-2	Air Intake Inner Adapter	7855P-338	32	Condensate Trap Cup	7855P-331
17	Air Vent Grommet	7855P-339	33	Top Wall Mount Bracket	7850P-068
18	Universal Control Board FT	7855P-217	34	Cabinet	7855P-226
19	Control Panel Bracket	7855P-219	35	Bottom Wall Mount Bracket	7850P-092
20	Air Pressure Switch	7855P-262			

Table 34 – Cabinet Replacement Parts – 140W Models

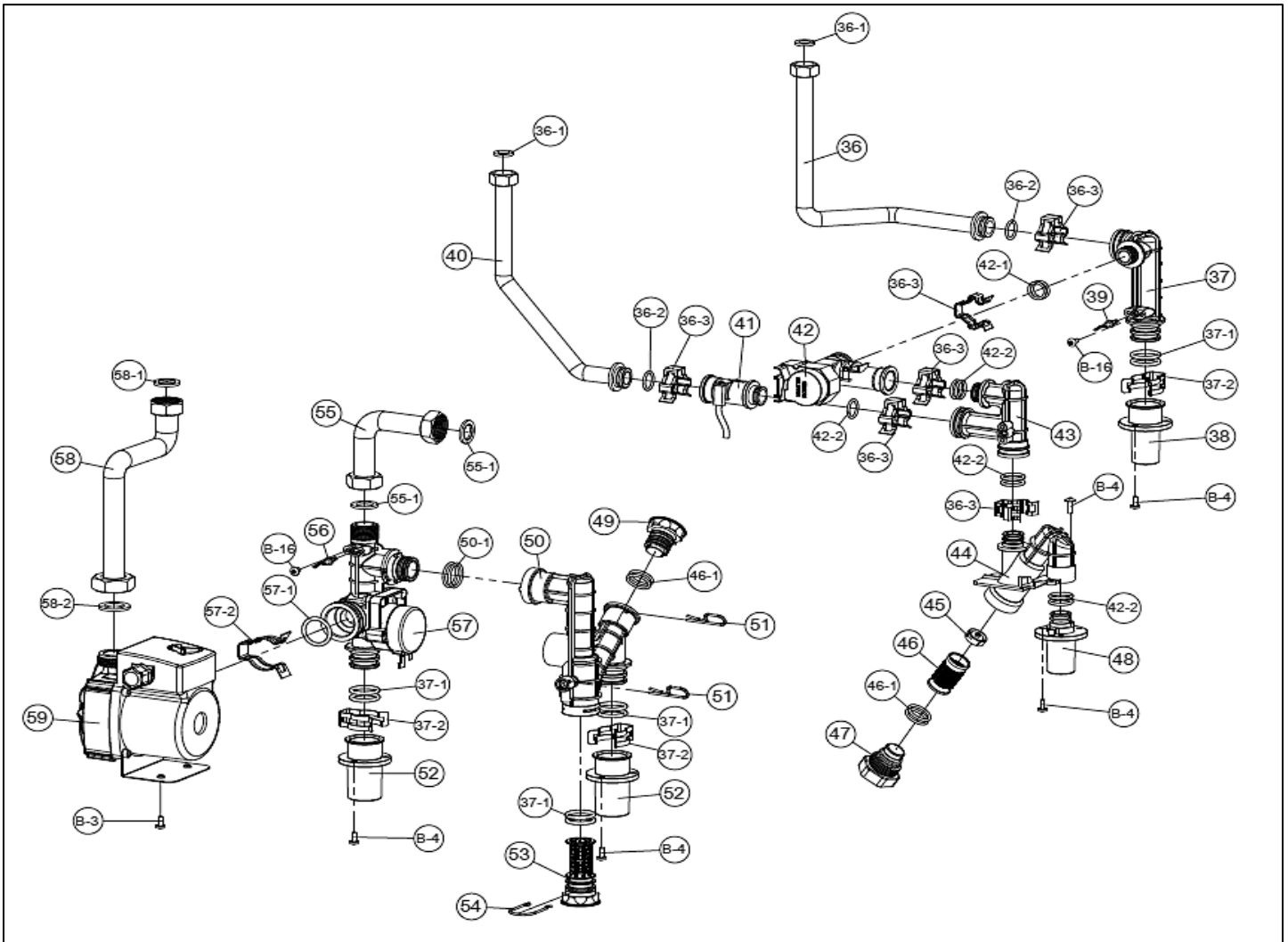


Figure 62 – Water Piping Replacement Parts – 140W Models

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
36	DHW Outlet Pipe	7855P-242	47	DHW Inlet Block Cap	7855P-283
36-1	1/2" Pipe Gasket	7855P-072	48	DHW Inlet Adapter	7855P-203
36-2	O-ring	7855P-044	49	DHW Inlet Block Cap	7855P-283
36-3	Clip (DHW Inlet)	7855P-249	50	CH Return Block With Filter	7855P-248
37	DHW Inner Block	7855P-251	50-1	P22 O-ring	7855P-276
37-1	O-ring P22A	7850P-262	51	CH Return Block With Filter Clips	7855P-284
37-2	Pipe Adapter Clip	7855P-278	52	CH Return Adapter	7855P-227
38	DHW Outlet Adapter	7855P-225	53	Filter for CH Return Block	7855P-265
39	DHW Temperature Sensor	7855P-094	54	CH Filter Clip	7855P-286
40	DHW Inlet Pipe	7855P-241	55	CH Return Pipe	7855P-243
41	DHW Flow Sensor	7855P-083	55-1	3/4" Pipe Gasket	7855P-073
42	Mixing Valve	7855P-043	56	CH Return Temperature Sensor	7855P-097
42-1	P15 O-ring	7855P-044	57	3 Way Valve Assembly	7855P-247
42-2	P16 O-ring	7855P-075	57-1	P22A O-ring	7850P-262
43	DHW Outer Block	7855P-259	57-2	Pump clip	7855P-263
44	DHW Inlet Filter Block	7855P-257	58	CH Supply Lower Pipe	7855P-244
45	Flow Restrictor (15L)	7855P-261	58-1	3/4" Pipe Gasket	7855P-073
46	DHW Inlet Filter	7855P-281	58-2	1" Pipe Gasket	7855P-074
46-1	P20 O-ring	7855P-282	59	Internal Pump	7855P-245

Table 35 – Water Piping Replacement Parts – 140W Models

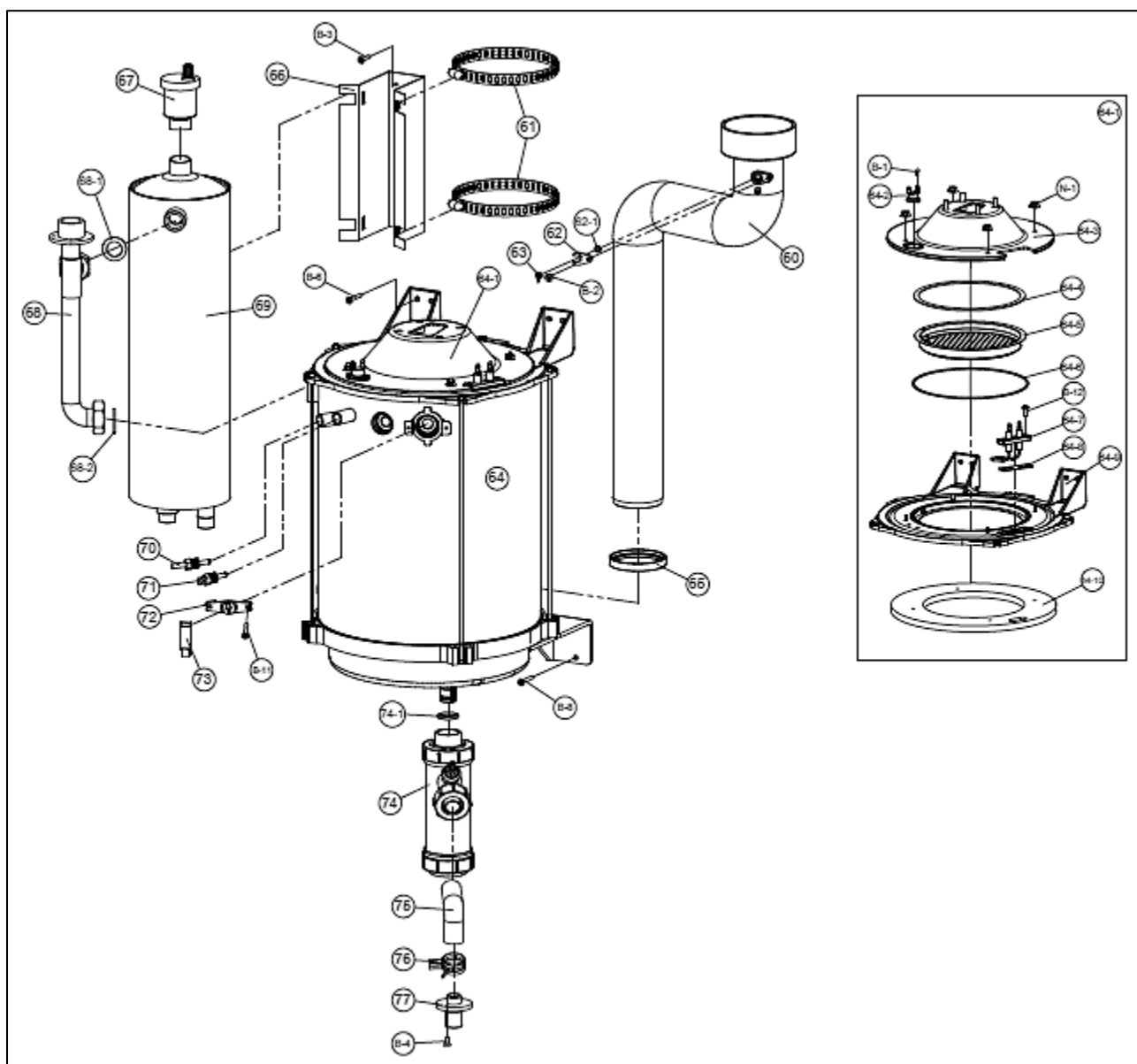


Figure 63 – Heat Exchanger Replacement Parts – 140W Models

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
60	Exhaust Pipe	7855P-237	65	Exhaust pipe Gasket	7855P-351
61	Storage Tank Clamp	7855P-297	66	Storage Tank Bracket	7855P-298
62	Exhaust Temperature Sensor Clip	7855P-349	67	Air Vent	7855P-063
62-1	Exhaust Temperature Sensor O-ring	7855P-092	68	CH Supply Upper Pipe	7855P-239
63	Exhaust Temperature Sensor	7855P-092	68-1	3/4" CH Supply Pipe Gasket	7855P-073
64	Heat Exchanger Assembly	7855P-353	68-2	1" CH Supply Pipe Gasket	7855P-074
64-1	Burner Body Assembly	7855P-354	69	Internal DHW Storage Tank	7855P-240
64-2	Burner Overheat Switch	7855P-066	70	CH Supply Temperature Sensor	7855P-030
64-3	Burner Body	7855P-067	71	Water Level Detection Sensor (Low water Cutoff)	7855P-029
64-4	Burner Gasket	7855P-266	72	Flame sensor bracket	7855P-356
64-5	Ceramic Fiber Burner	7855P-069	73	Flame sensor	7855P-031
64-6	Burner plate O-Ring	7855P-249	74	Condensate Trap Assembly	7855P-053
64-7	Ignition Rod	7855P-068	74-1	Burner Body Assembly	7855P-354
64-8	Igniter Gasket	7855P-252	75	Condensate Trap drain hose	7855P-255
64-9	Heat Exchanger Top	7855P-355	76	Condensate trap clamp (Φ23)	7855P-366
64-10	Burner Refractory	7855P-253	77	Condensate Outlet Adapter	7855P-224

Table 36 – Heat Exchanger Replacement Parts – 140W Models

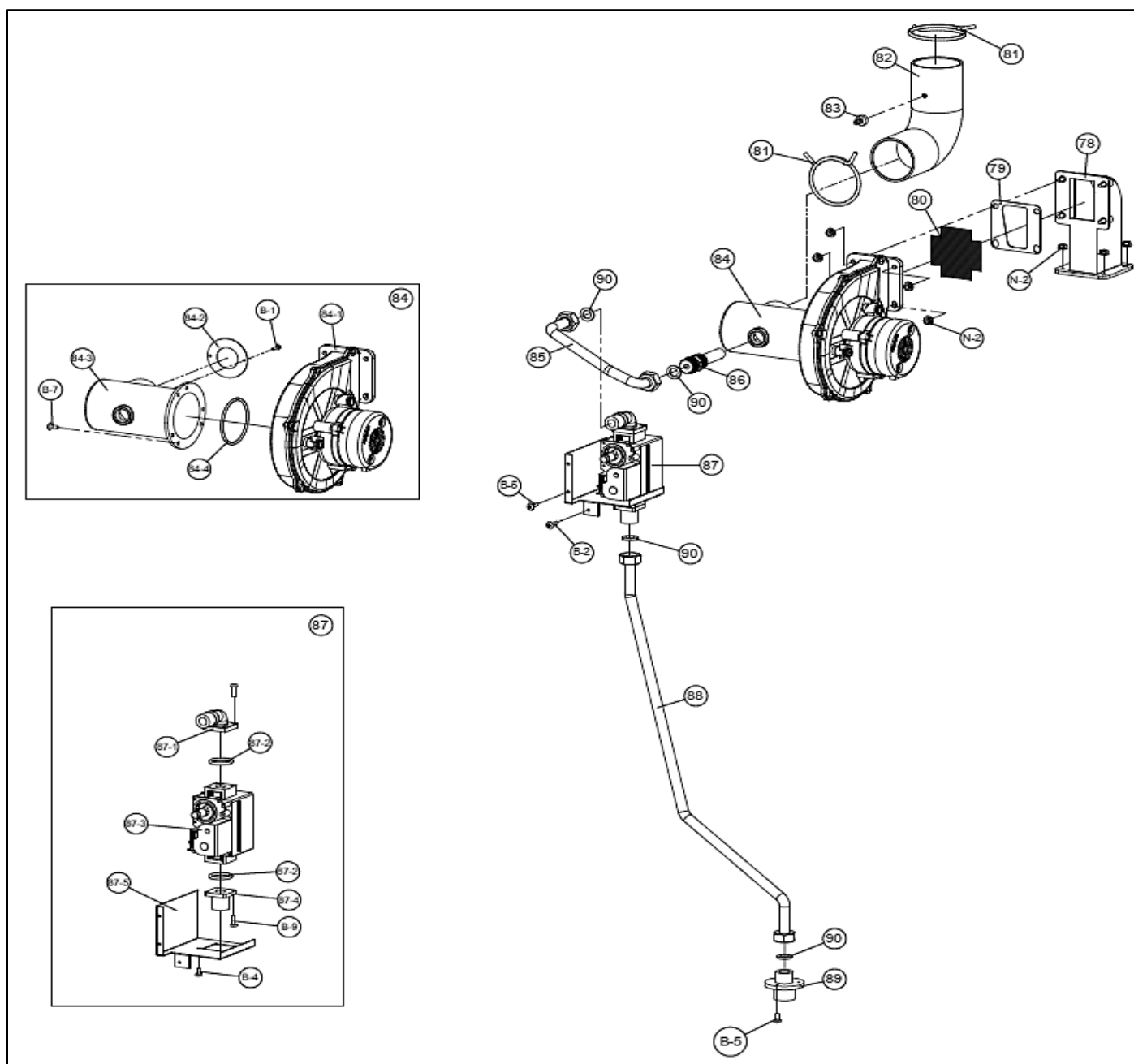


Figure 64 – Combustion System Replacement Parts – 140W Models

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
78	Burner Inlet Chanel (with Damper)	7855P-424	85	Gas Outlet Pipe	7855P-233
79	Air Damper	7855P-618	86	Gas Orifice Nozzle (NG) - 6.5 mm	7855P-228
80	Air Damper Guide	7855P-369		Gas Orifice Nozzle (LP) - 4.85 mm	7855P-229
81	Fan Outlet Gasket	7855P-425	87	gas valve Assembly	7855P-381
82	Burner Inlet Chanel Gasket	7855P-426	87-1	Gas valve outlet adapter	7855P-232
83	APS Hose Fitting	7855P-375	87-2	Gas Valve O-ring	7855P-076
84	Fan Assembly	7855P-457	87-3	Gas valve	7855P-034
84-1	Fan	7855P-025	87-4	Gas valve inlet adapter	7855P-033
84-2	Air intake Chanel Orifice	7855P-458	87-5	Gas Valve Bracket	7855P-234
84-3	Air Gas Mixer	7855P-027	88	Gas Inlet Pipe	7855P-235
84-4	Fan O-ring	7855P-371	89	Gas Inlet Adapter (1/2")	7855P-223

Table 37 – Combustion System Replacement Parts – 140W Models

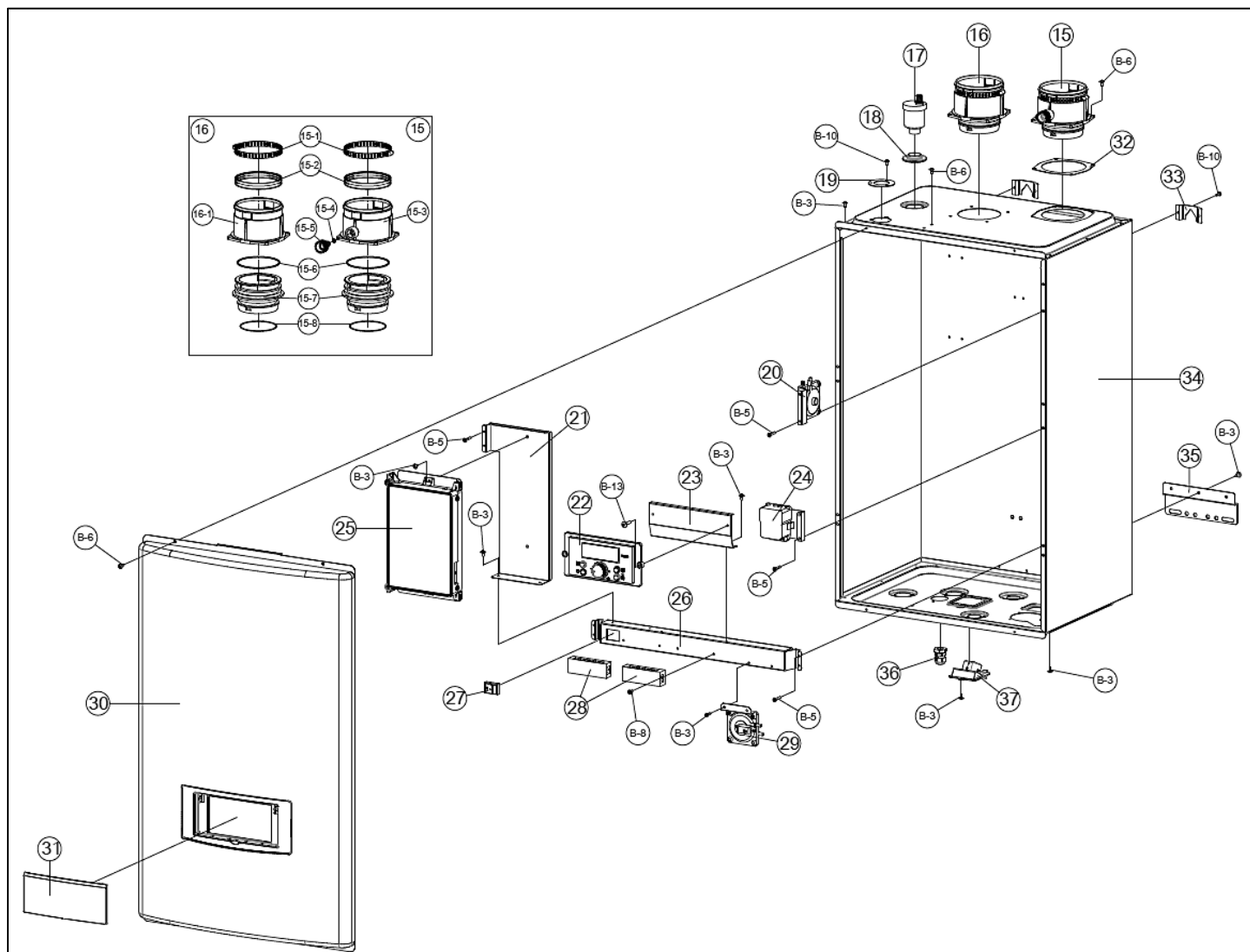


Figure 65 – Cabinet Replacement Parts – 199W Models

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
15	Exhaust Duct Assy	7855P-002	22	Display Panel	7855P-012
15-1	Exhaust / Intake Duct Clamps	7855P-332	23	Display Panel Bracket	7855P-413
15-2	Exhaust / Intake Gaskets	7850P-210	24	Ignition Transformer	7855P-007
15-3	Exhaust Duct	7855P-333	25	Universal Control Board FT	7855P-268
15-4	Combustion Analyzer Port Plug O-Ring	7855P-334	26	Terminal Block Bracket	7855P-271
15-5	Combustion Analyzer Port Plug	7855P-335	27	Manual Power Switch	7855P-014
15-6	Intake / Exhaust Adapter O-Ring	7855P-256	28	Terminal Block 6P – Combi	7855P-272
15-7	Exhaust Duct Inner Adapter	7855P-004	29	Condensate Block APS	7855P-017
15-8	Exhaust Adapter O-Ring	7855P-254	30	Front Cover	7855P-273
16	Air Intake Assy	7855P-411	31	Display Panel Cover	7850P-023
16-1	Air Intake Cap	7855P-337	32	Exhaust Adapter Gasket	7850P-041
17	Air Vent	7855P-063	33	Top Wall Mount Bracket	7850P-068
18	Air Vent Grommet	7855P-339	34	Cabinet	7855P-274
19	PRV Ring	7855P-269	35	Bottom Wall Mount Bracket	7850P-092
19-1	PRV Rubber Pad	7855P-339	36	Wire Gland	7855P-348
20	Air Pressure Switch	7855P-262	37	CH Pressure Gauge	7855P-222
21	Control Board Bracket	7855P-412			

Table 38 – Cabinet Replacement Parts – 199W Models

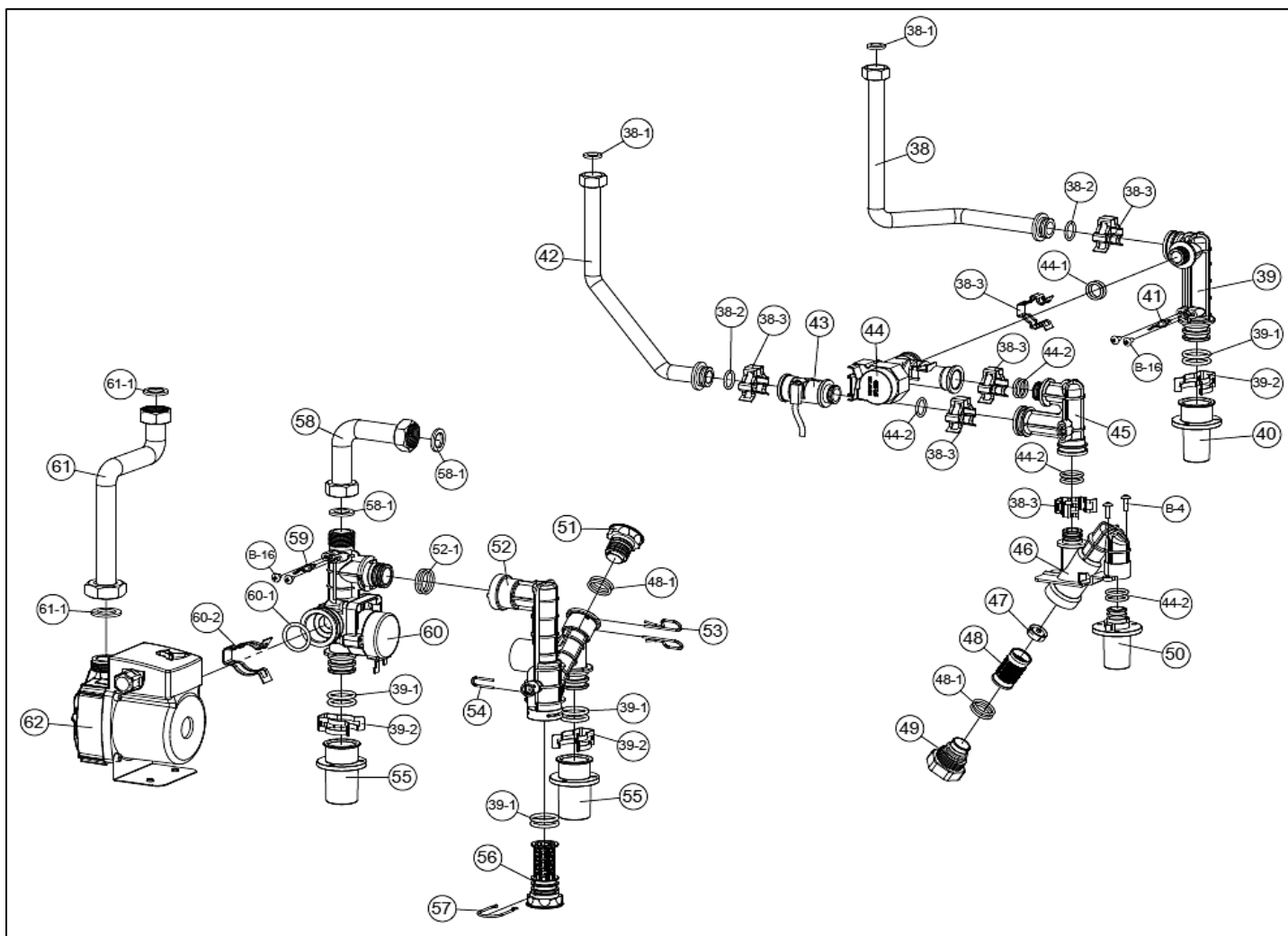


Figure 66 – Water Piping Replacement Parts – 199W Models

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
38	DHW Outlet Pipe	7855P-275	49	DHW Inlet Block Cap	7855P-283
38-1	3/4" Pipe Gasket	7855P-073	50	DHW Inlet Adapter	7855P-203
38-2	P-18 O-Ring	7855P-047	51	CH Block Cap	7855P-283
38-3	1/2" Pipe Clip	7855P-246	52	CH Return Block With Filter	7855P-248
39	DHW Inner Block	7855P-251	52-2	P22 O-Ring	7855P-276
39-1	P22A O-Ring	7855P-276	53	CH Return Block With Filter Clips	7855P-284
39-2	Pipe Adapter Clip	7855P-277	54	Pressure Gauge Clip	7855P-285
40	DHW Outlet Adapter	7855P-225	55	CH Return Adapter	7855P-227
41	DHW Temperature Sensor	7855P-094	56	Filter for CH Return Block	7855P-265
42	DHW Inlet Pipe	7855P-241	57	CH Filter Clip	7855P-286
43	DHW Flow Sensor	7855P-083	58	CH Return Pipe	7855P-287
44	Mixing Valve	7855P-043	58-1	3/4" Pipe Gasket	7855P-073
44-1	Flow Sensor Clip	7855P-278	59	CH Return Temperature Sensor	7855P-097
44-2	P15 O-Ring	7855P-044	60	3 Way Valve Assembly	7855P-247
45	DHW Outer Block	7855P-259	60-1	P25 O-Ring	7855P-288
46	DHW Inlet Filter Block	7855P-279	60-2	Pump Clips	7855P-263
47	Flow Restrictor	7855P-280	61	CH Supply Lower Pipe	7855P-290
48	DHW Inlet Filter	7855P-281	61-1	3/4" Pipe Gasket	7855P-073
48-1	P20 O-Ring	7855P-282	62	Internal Grundfos Pump / DHW Storage Pump	7855P-456

Table 39 – Water Piping Replacement Parts – 199W Models

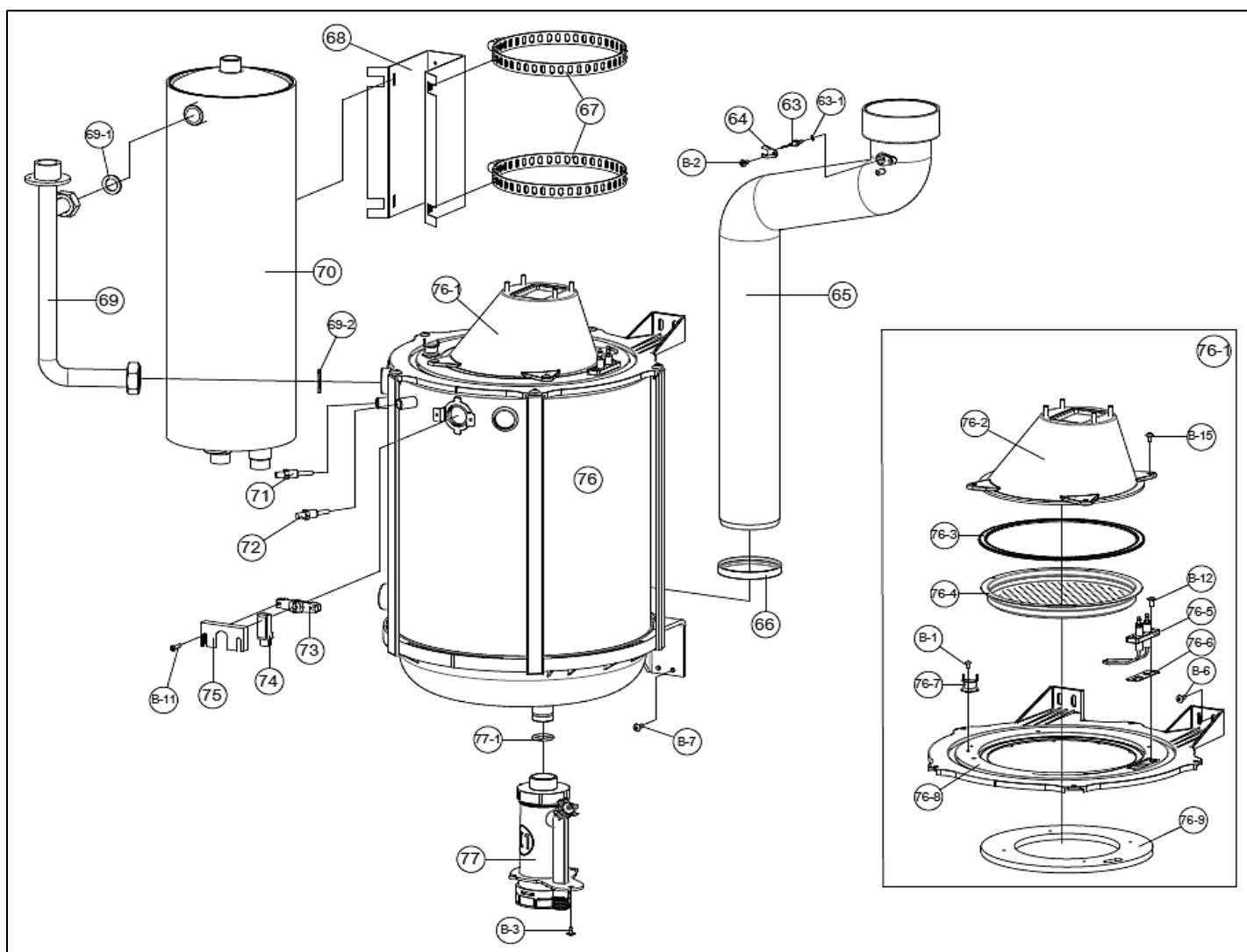


Figure 67 – Heat Exchanger Replacement Parts – 199W Models

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
63	Exhaust Temperature Sensor	7855P-092	74	Flame Sensor	7855P-031
63-1	Exhaust Temperature Sensor O-Ring	7855P-092	75	Flame Sensor Cover	7855P-357
64	Exhaust Temperature Sensor Clip	7855P-349	76	Heat Exchanger Assembly	7855P-416
65	Exhaust Pipe Assembly	7855P-415	76-1	Burner Body Assembly	7855P-417
66	Exhaust Pipe Gasket	7855P-418	76-2	Burner Body	7855P-606
67	Storage Tank Clamp	7855P-291	76-3	Burner Gasket	7855P-419
68	Storage Tank Bracket	7855P-292	76-4	Ceramic Fiber Burner	7855P-420
69	CH Supply Pipe	7855P-293	76-5	Ignition Rod	7855P-607
69-1	3/4" CH Supply Pipe Gasket	7855P-073	76-6	Igniter Gasket	7855P-252
69-2	1" CH Supply Pipe Gasket	7855P-074	76-7	Burner Overheat Switch	7855P-066
70	Storage Tank	7855P-294	76-8	Heat Exchanger Top	7855P-619
71	CH Supply Temperature Sensor	7855P-030	76-9	Burner Refractory	7855P-612
72	Water Level Detection Sensor (Low Water Cutoff)	7855P-029	77	Condensate Trap Assembly	7855P-605
73	Flame Sensor Bracket	7855P-356	77-1	Condensate Trap O-Ring (P22A)	7855P-276

Table 40 – Heat Exchanger Replacement Parts – 199W Models

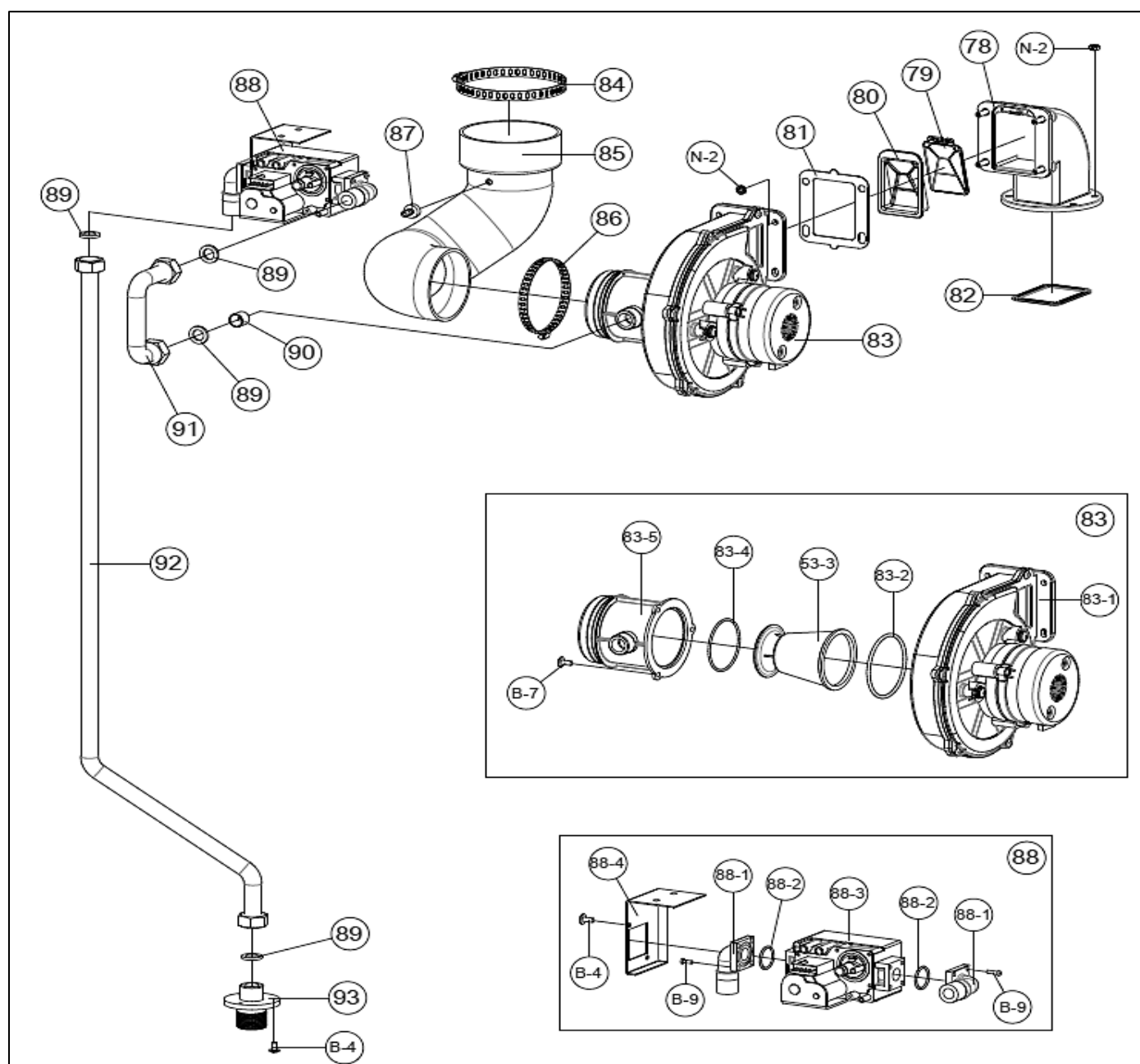


Figure 68 – Combustion System Replacement Parts – 199W Models

NUMBER	DESCRIPTION	PART NUMBER	NUMBER	DESCRIPTION	PART NUMBER
78	Burner Inlet Chanel (with Damper)	7855P-424	86	Air Intake Hose Bottom Clamp	7855P-429
79	Air Damper	7855P-618	87	APS Hose Fitting	7855P-375
80	Air Damper Guide	7855P-369	88	Gas Valve Assembly	7855P-431
81	Fan Outlet Gasket	7855P-425	88-1	Gas Valve Outlet Adapter	7855P-232
82	Burner Inlet Chanel Gasket	7855P-426	88-2	Gas Valve O-Ring	7855P-076
83	Fan and Mixer Assembly	7855P-427	88-3	Gas Valve	7855P-034
83-1	Fan	7855P-025	88-4	Gas Valve Bracket	7855P-436
83-2	Fan O-Ring	7855P-371	89	1/2" Gas Pipe Gasket	7855P-221
83-3	Air-Gas Mixer (Inner Part)	7855P-609	90	Gas Orifice (NG) 8.3 mm	7855P-610
83-4	Air-Gas Mixer Gasket	7855P-428	91	Gas Orifice (LP) 6.3 mm	7855P-435
83-5	Air-Gas Mixer (Outer Part)	7855P-608	92	Gas Pipe (to Mixer)	7855P-432
84	Air Intake Hose Top Clamp	7855P-429	93	Gas Pipe (to Gas Valve)	7855P-295
85	Air Intake Hose	7855P-430			

Table 41 – Combustion System Replacement Parts – 199W Models