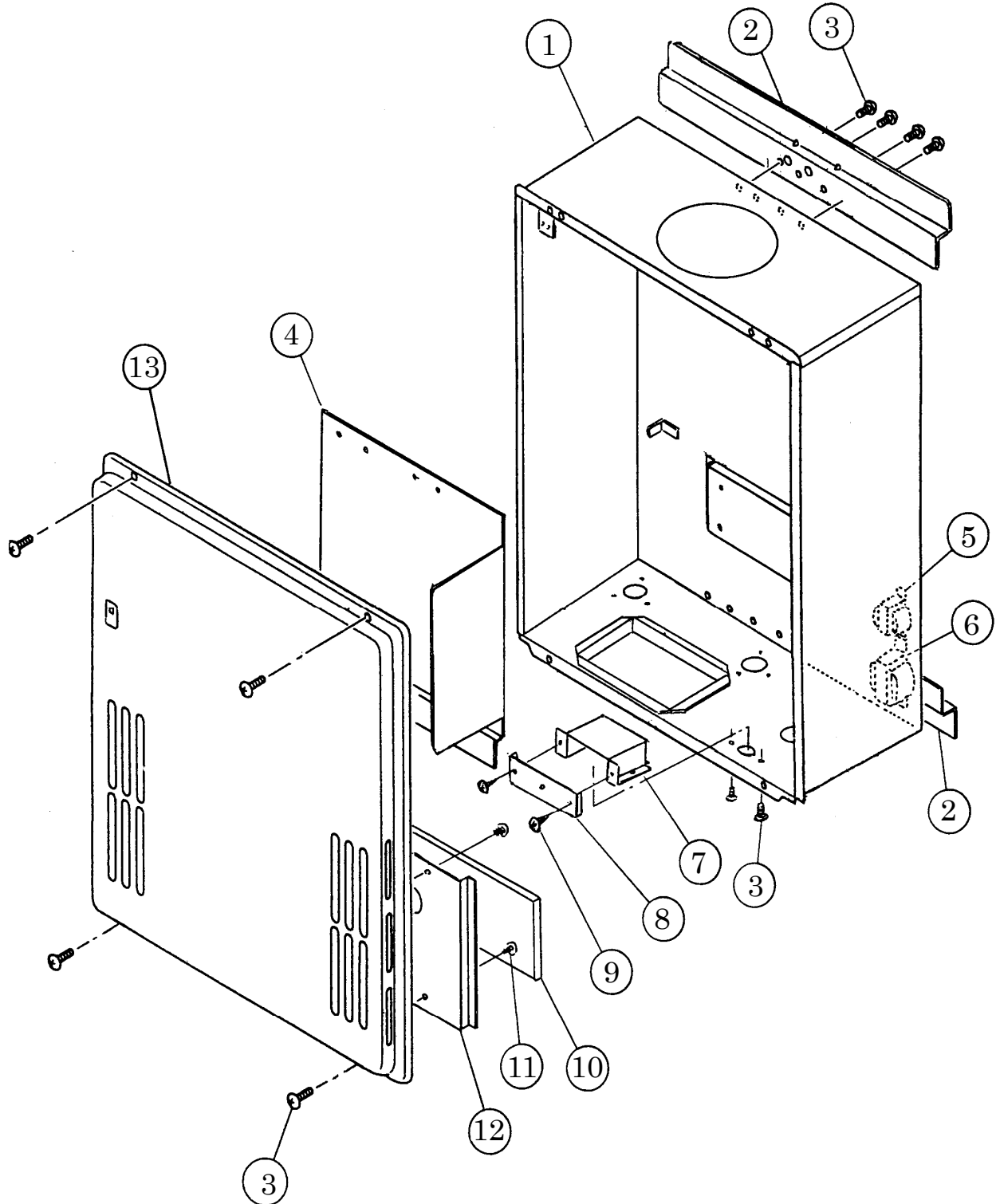


13. Components diagrams

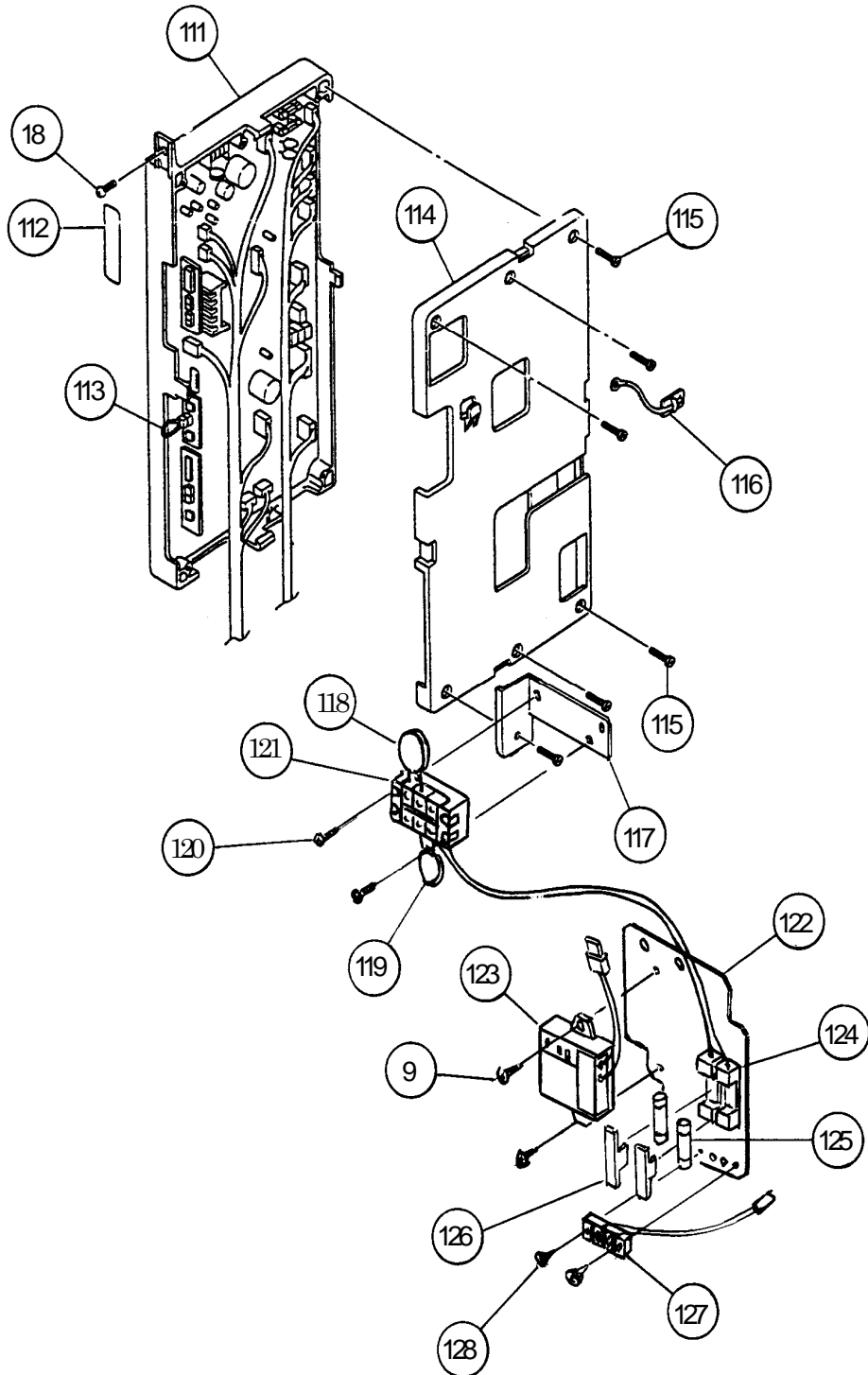
Case assembly

Other than the case assembly (No.1) and front cover (No.13), the T-M1 and T-M199 share the

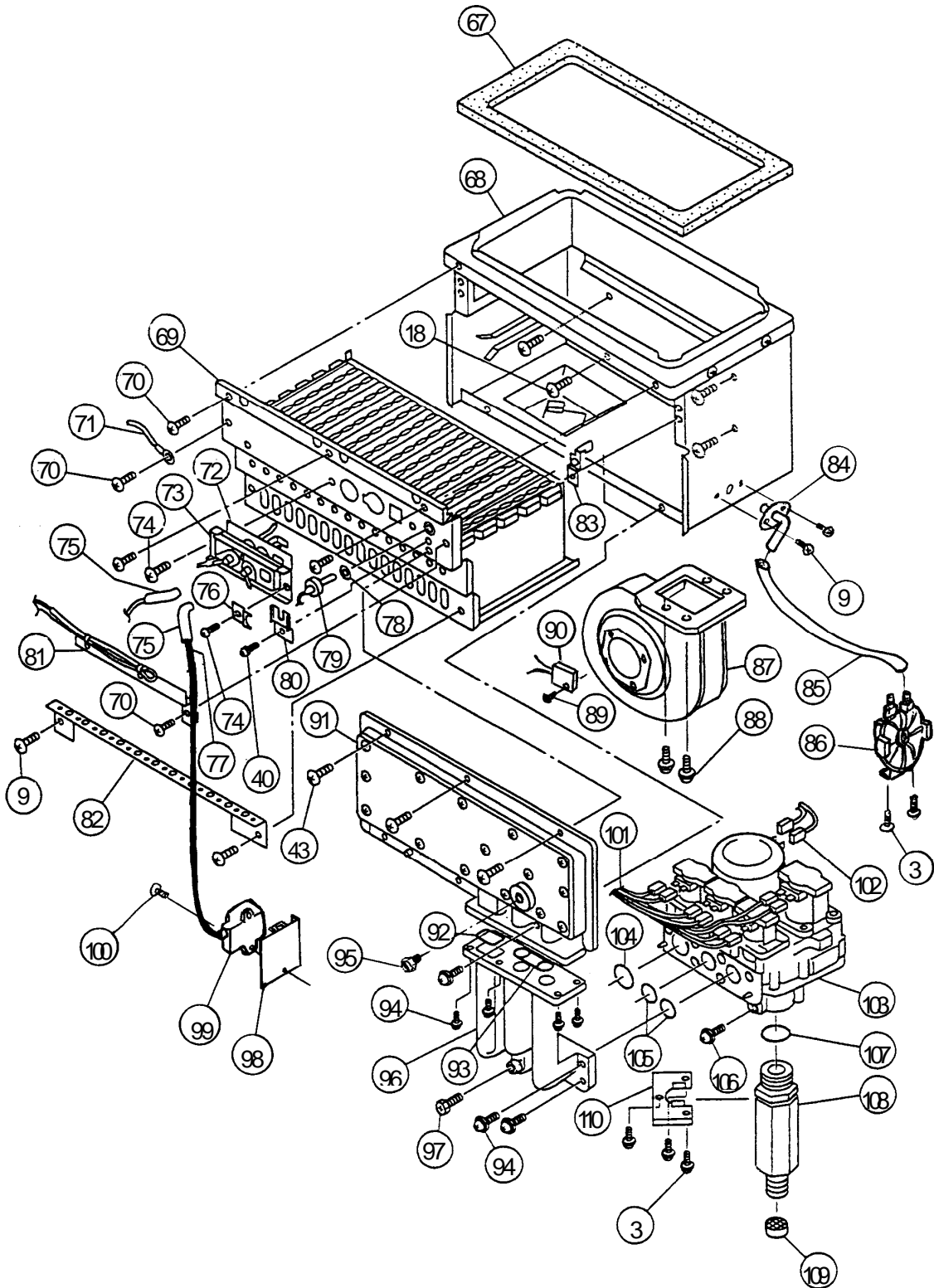


Computer board assembly

Other than Part# 111, the T-M1 and T-M199 share the same components.

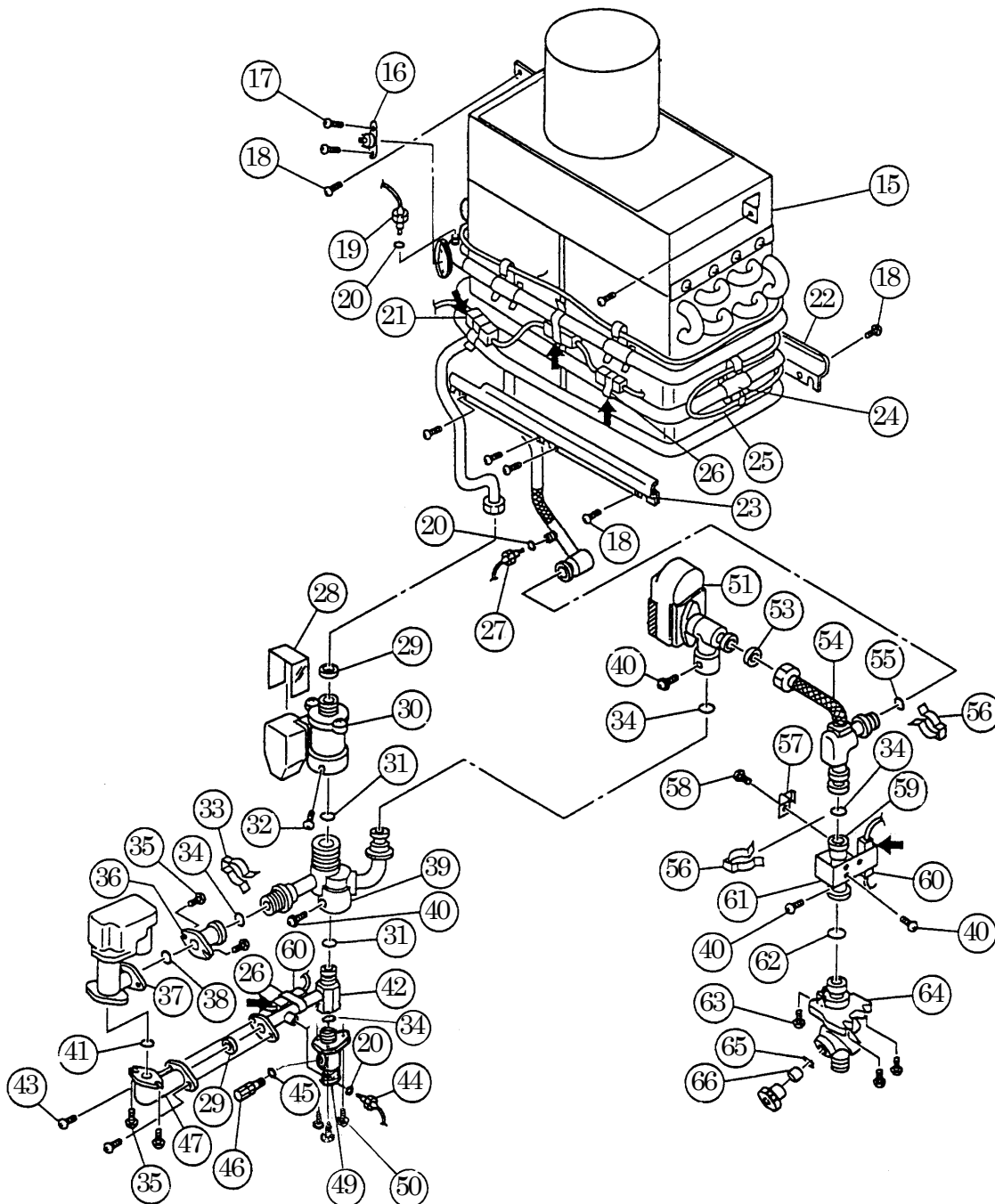


Burner assembly



Water way assembly

Other than the heat exchanger assembly (No.15), the T-M1 and T-M199 share the same components.



14. Parts list

Other than the case assembly (No.1), front cover (No.13), heat exchanger assembly (No.15) and computer board (No.111), all of the T-M199's components are the same as the T-M1.

Item #	Part #	Description	Common parts for other units
1	EM103 (T-M1) EM232 (T-M199)	Case Assembly	
2	EM104	Bracket	TH1, TM32
3	EW001	Screw M4×10 (w/washer)	*
4	EM185	Back guard panel	
5	EM164	Computer transformer (TD1-205)	
6	EM163	Transformer (TD1-203)	
7	EK061	Junction Box	TK2, TKD20
8	EK062	Junction Box Cover	TK2, TKD20
9	EW003	Screw M4 x 10	*
10	EM148	Sound Insulation	
11	EA126	Screw M4 x 8 (Coated)	*
12	EM107	Weather Protection Panel	
13	EM105 (T-M1)	Front cover	
	EM233 (T-M199)		
15	EM112 (T-M1) EM240 (T-M199)	Heat Exchanger Assembly	
16	EM212	Hi-Limit Switch	TK2, TKD20
17	EW00A	Screw M3 x 6	*
18	EW002	Screw M4 x 10 (Coated)	*
19	EM186	Output thermistor	
20	EZM04	O-ring P4 EPDM (Purple)	TK2, TKD20, TKJr, TK1S, OS, SP, TH1, TM50, TM32, T-K3, Pro
21	EM166	Heater Block 604	
22	EK026	Heat Exchanger Fixing Plate (Back)	

Item #	Part #	Description	Common parts for other units
23	EK028	Heat exchanger fixing plate (Front)	
24	EK029	Fuse fixing plate 14	OS,SP,TK2,TKD20,TK1S,TKJr,TK3,Pro
25	EM138	Overheat-cut-off-fuse	
26	EK031	Heater fixing plate 16	TK2, TKD20, TM50, TM32
27	EM187	Inlet thermistor	TK2, TKD20
28	EM188	Two way valve cover	
29	EM189	Silicon O-ring M26	
30	EM118	Two way valve assembly	
31	EZV20	O-ring P20 EPDM	
32	EA126	Screw M4 x 8 (Coated)	*
33	EM190	Quick release plate	
34	EZN16	O-ring JASO#1016 EPDM (Purple)	TH1, TK2,TKD20, TM32
35	EX013	Screw M4 x 12	*
36	EM169	Flange	
37	EM120	Flow adjustment valve	
38	EZM16	O-ring P16 EPDM (Purple)	TK2,TKD20,TKJr,TK1S,TK3,OS,SP, TH1, TM50, TM32, Pro
39	EM115	Bypass junction	
40	EW009	Screw M4 x 6	*
41	EZV18	O-ring P18 EPDM	
42	EM119	Water outlet connection	
43	EW00E	Screw M4 x 14	*
44	EM179	Mixing thermistor	
45	EZM06	O-ring P6 EPDM (Purple)	TK2,TKD20,TKJr,TK1S,OS,SP, TK3,Pro,TH1, TM50, TM32
46	EK046	Outlet drain plug	
47	EM170	Mixing connection pipe	
49	EM100	Water Outlet	
50	EW000	Screw M4 x 12 (w/washer)	*

Item #	Part #	Description	Common parts for other units
51	EM116	Bypass valve	
53	EK024	Silicon O-ring M22	
54	EM114	Bypass Connection	
55	EZV17	O-ring JASO #1017	
56	EM192	Fastener "16A"	TK2,TKD20,TKJr,TK1S,T-K3, OS,SP,TH1,Pro
57	EM193	Heater fixing Plate	
58	EW009	Screw M4 x 6	*
59	EM143	Flow Sensor	
60	EM165	Heater 102	
61	EM194	Magnetic Protection Plate	
62	EZN19	O-ring JASO #1019	
63	EW01E	Truss screw M4 x 14 (coated)	*
64	EM101	Water Inlet	
65	EZN21	O-ring JASO #1021 EPDM (Purple)	TM32,TM50
66	EM222	Filter plug	TM32,TM50
67	EM196	Packing	
68	EM121	Combustion chamber	
69	EM197	Burner assembly	
70	EW00J	Screw M4 x 12	*
71	EM167	Wire clamp 60	TK2, TKD20, TKJr, TK1S, OS, SP, TH1, TM50,TK3, Pro, TM32
72	EM198	Spark electrode holder packing	
73	EM199	Rod assembly	
74	EW003	Screw M4 x 10	*
75	EK068	Silicon Cap	
76	EM200	Spark electrode fixing plate	
77	EK065	High voltage igniter cable	
78	EM201	Seal packing	
79	EM202	Thermocouple	
80	EM203	Thermocouple Fixing Plate	

Item #	Part #	Description	Common parts for other units
81	EM178	Overheat cut off fuse	
82	EM159	Damper	TK2, TKD20
83	EM204	Current plate	
84	EM205	Pressure switch port	TK2, TKD20, TM199, TH1
85	EM206	Silicon Tube	TH1
86	EKD08	Pressure switch	TK2, TKD20, TH1
87	EM126	Fan Motor	
88	EW004	Hex head screw M4×12 (w/washer)	*
89	EW008	Screw M3 x 10	*
90	EM142	Freeze protection thermostat	
91	EM162	Manifold LP	
	EM158	Manifold NG	
92	EM174	Manifold gasket A	TK2, TKD20, TH1
93	EM175	Manifold gasket B	TK2, TKD20, TH1
94	EKK37	Screw M4 x 12	*
95	EKN22	Manifold pressure port screw	TK1S, T-KJr, T-H1
96	EM176	Gas Coupling	TH1
97	EW005	Hex head screw M4×8	*
98	EM177	Igniter fixing plate	
99	EM208	Igniter	TK2, TKD20
100	EW009	Screw M4 x 6	*
101	EM123	Solenoid valve wire	
102	EM124	Proportional valve wire	
103	EM122	Gas valve unit	TH1
104	EZP22	O-ring P22 NBR (Black)	TH1
105	EZP18	O-ring P18 NBR (Black)	TK2, TKD20, TH1, TK3, Pro
106	EW00D	Screw M4 x 8	*
107	EZP26	O-ring P26 NBR (Black)	TH1, TM32
108	EM125	Gas Inlet	
109	EK022	Gas Filter	TKJr, TK1S
110	EM209	Gas Inlet Fixing Plate	

Item #	Part #	Description	Common parts for other units
111	EM129 (T-M1) EM235 (T-M199)	Computer Board	
112	EM174	Computer Board Sticker	
113	EM134	Mode Port	
114	EM173	Control Box	
115	EW01D	Screw M3 x 25	*
116	EM167	Wire clamp 60	TK2, TKD20, TKJr, TK1S, OS, SP, TH1, TM50,TK3,Pro,TM32
117	EM216	Terminal Holder	
118	EM182	Surge Absorber: A	
119	EM183	Surge Absorber: B	
120	EW016	Screw M4 x 16	*
121	EM181	Terminal	
122	EM136	Power distribution plate	
123	EM207	Ground fault circuit interrupter	TH1, TM32, TM50
124	EK055	Fuse Box	
125	EM168	Fuse	
126	EK057	Fuse Cover	
127	EM140	Remote Control Terminal	
128	EX012	Screw M3 x 12	*