

Replacement parts

⚠WARNING DO NOT SERVICE THE BOILER WITHOUT A ECO MAINTENANCE KIT AVAILABLE

The ECO maintenance kit includes components that may have to be replaced when accessing or disassembling parts of the boiler. Failure to replace damaged components and to use only the parts specifically intended for the boiler can result in severe personal injury, death or substantial property damage. See Figure 109, page 107 for part number.

REPLACEMENT PART NUMBERS

Weil-McLain part numbers are found in this manual and in *Weil-McLain Boilers and Controls Repair Parts Lists*.

WHEN OPERATING THE BOILER ON PROPANE GAS

⚠WARNING ALL ECO boilers must be converted in order to operate with propane gas.

Figure 108 Propane conversion kits and instructions

Boiler model	Kit part number	Kit location	Installation instructions
ECO 70	540-202-837	Shipped loose with boiler	See page 13
ECO 110	540-202-838	Shipped loose with boiler	See page 13
ECO 155	540-202-839	Shipped loose with boiler	See page 15

⚠WARNING Failure to adhere to these guidelines can result in severe personal injury, death or substantial property damage.

OBTAIN PARTS ONLY THROUGH WEIL-McLAIN

Replacement parts must be purchased through a local Weil-McLain distributor. When ordering, specify boiler model and size and include description and part number of replacement part. Results from using modified or other manufactured parts will not be covered by warranty and may damage boiler or impair operation.

THE BOILER CONTAINS CERAMIC FIBER MATERIALS

The boiler contains ceramic fiber materials. Use care when handling these materials per instructions on page 84 of this manual. Failure to comply could result in severe personal injury.

REINSTALL Jacket door

Inspect boiler jacket door gaskets on front of cabinet and reinstall boiler jacket door after start or servicing. The boiler jacket door must be securely fastened to the boiler to prevent boiler from drawing air from inside the boiler room. This is particularly important if the boiler is located in the same room as other appliances. Failure to keep the jacket door securely fastened could result in severe personal injury or death.

BEFORE SERVICING or MAKING CONNECTIONS —

ALWAYS TURN POWER OFF TO THE BOILER TO PREVENT ELECTRICAL SURGES, WHICH CAN DAMAGE BOILER COMPONENTS.

LABEL WIRES BEFORE REMOVING

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

Replacement parts *(continued)*

Figure 109 Miscellaneous parts and kits

Item	Description	Part Number	Item	Description	Part Number
CHEMICALS					
100	Antifreeze, Sentinel X500	592-900-004	180	Sidewall separate pipes vent/air termination kits (includes two cover plates)	
	Corrosion inhibitor, Sentinel X100	592-900-002		Kit for 2" PVC vent and air pipes.	383-700-171
	Sentinel X100 Quick Test Kit.	592-900-005		Kit for 3" PVC vent and air pipes.	383-500-100
	Cleaner, Sentinel X400	592-900-003		Kit for 3" AL29-4C SS vent pipe and PVC air pipe	383-700-172
BOILER ACCESSORIES					
110	ECO 70/110 maintenance kit — igniter, igniter gasket, venturi gasket, cover plate gasket, venturi-gas valve o-ring, refractory, silicone, inhibitor test kit, clips and manuals	383-700-165	190	PVC concentric vent kit — horizontal or vertical (includes components for concentric assembly)	
	ECO 155 maintenance kit — igniter, igniter gasket, venturi gasket, cover plate gasket, venturi-gas valve o-ring, refractory, silicone, inhibitor test kit, clips and manuals	383-700-200		Kit for 2" PVC vent and air pipes.	383-700-167
120	Wall-mount kit (supplied with boiler) — wall mount bracket and hardware	383-800-218		Kit for 3" PVC vent and air pipes.	383-500-350
130	ECO Floor stand kit	383-800-101	200	Bird screens (1 screen each)	
140	Condensate trap kit (supplied with boiler) — condensate trap assembly and flexible line	560-907-722		For 2" PVC vent and air pipes	560-907-728
CONDENSATE HANDLING ACCESSORIES					
150	Condensate neutralizer kit	383-500-631		For 3" PVC vent and air pipes	383-500-105
VENT/AIR PARTS AND KITS (PVC or STAINLESS STEEL) available from Weil-McLain					
160	Weil-McLain sidewall vent/air cap termination kit for PVC vent and air pipes	383-500-397	VENT/AIR PARTS AND KITS (POLYPROPYLENE PIPE) available from M&G Simpson-DuraVent ONLY		
	Includes sidewall vent/air termination cap, inside and outside cover plates, and mounting hardware; openings are sized for 3" PVC pipe (requires field-installed 3 x 2 adapter if using 2" vent/air pipes)		210	M&G Simpson-DuraVent PolyPro SIDEWALL concentric vent/air kit (color: white)	
170	Weil-McLain sidewall vent/air cap termination kit for AL29-4C vent pipe and PVC air pipe	382-200-430		2" polypropylene pipe	2PPS-HK
	Includes sidewall vent/air termination cap, inside and outside cover plates, and mounting hardware; openings are sized for 3" SS vent pipe and 3" PVC air pipe (requires field-installed 3 x 2 adapter if using 2" vent/air pipes)		3" polypropylene pipe	3PPS-HK	
VENT/AIR PARTS AND KITS (POLYPROPYLENE PIPE) available from Centrotherm Eco Systems ONLY					
240			220	M&G Simpson-DuraVent PolyPro VERTICAL concentric vent/air kit; color = black (part number shown) or terra cotta (add -TC suffix)	
				2" polypropylene pipe	2PPS-VK
				3" polypropylene pipe	3PPS-VK
250			230	M&G Simpson-DuraVent PolyPro SIDEWALL separate air and vent pipes	
				2" polypropylene pipe	2PPS-HTP
				3" polypropylene pipe	3PPS-HTP
240			240	Centrotherm INNOFLUE SIDEWALL concentric vent/air kit	
				3" polypropylene pipe.	ICWT352
				2" stainless steel/pp pipe	ICWS2413
250			250	3" stainless steel/pp pipe	ICWS3513
				Centrotherm INNOFLUE VERTICAL concentric vent/air kit	
				2" polypropylene pipe	ICRT2439
				3" polypropylene pipe	ICRT3539

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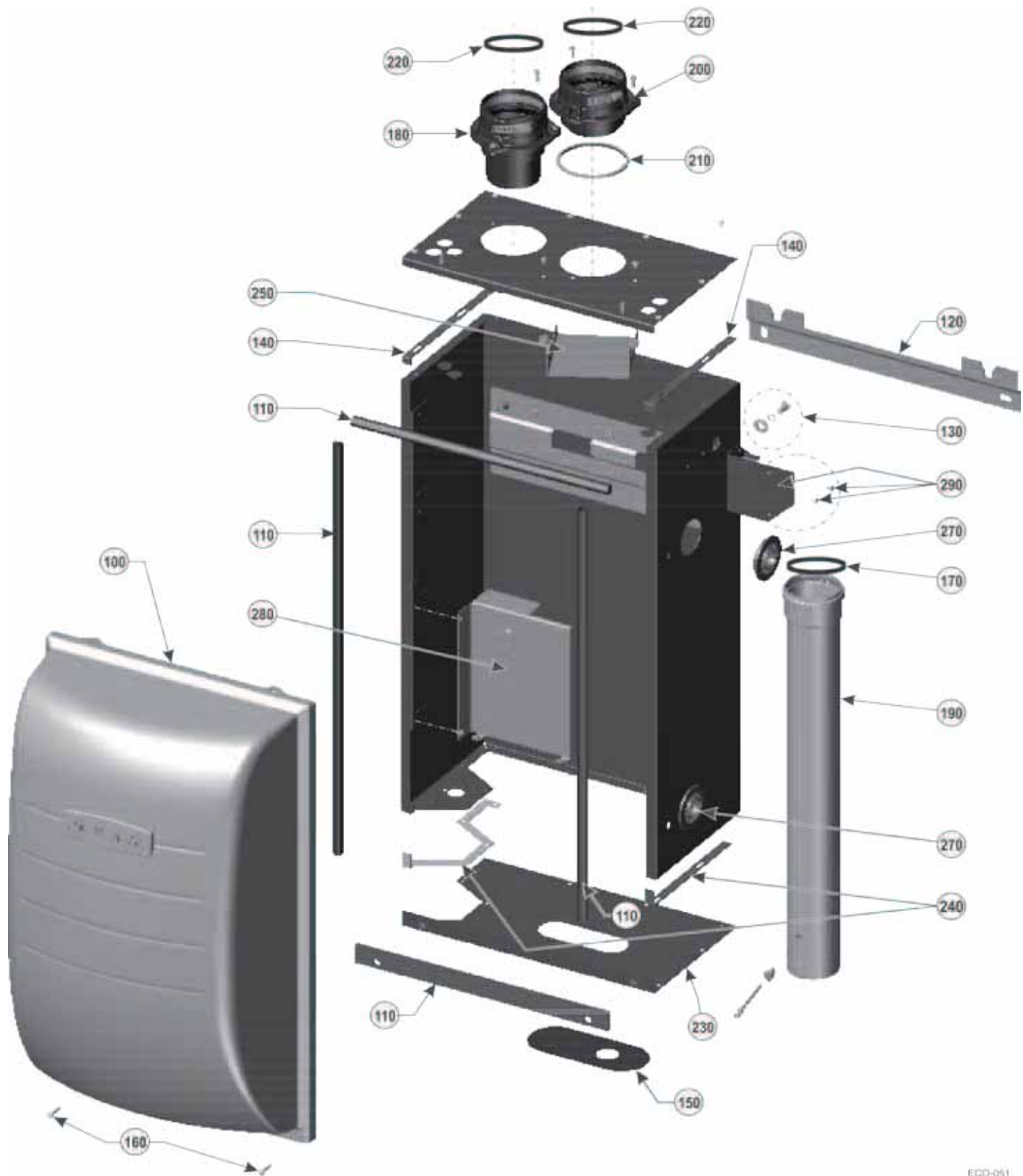
Replacement parts *(continued)*

Figure 110 Jacket parts — **ECO 70/110/155** (see Figure 111, page 109 for illustration)

Item	Name	Description / contents	Part Number
100	Jacket door	Jacket door and labels	383-800-216
110	Seals – jacket door to cabinet	Seals for front face of cabinet	383-800-217
120	Wall-mount bracket (wall side)	Bracket and hardware	383-800-218
130	Wall-mount hardware (boiler side)	Boiler mounting studs (bolts, washers, and spacers, 2 each)	383-800-219
140	Gaskets - upper panel to cabinet	Gaskets - upper panel to cabinet	383-800-220
150	Gasket - heat exchanger to bottom panel	Gasket - condensate trap to bottom panel	590-318-071
160	Door screw	Screw Truss Head #10-24 (1 each)	562-150-290
170	Gasket - internal flue pipe to adapter	Gasket fits inner diameter of boiler flue pipe	590-318-051
180	Flue pipe adapter	Top flue adapter with internal gasket	560-907-719
190	Boiler flue pipe	Internal flue pipe and gasket	560-907-720
200	Air inlet adapter	Top air inlet adapter with internal gasket	560-907-718
210	Gasket - pipe adapter to cabinet	Gasket - pipe adapter to cabinet (applies to air and vent adapters)	590-300-031
220	Gasket - pipe adapter to system pipe	Gasket fits inner diameter of top adapter	590-318-052
230	Jacket bottom panel kit	Jacket bottom panel, gasket (items 150 and 240) and screws	383-800-221
240	Gaskets - bottom panel to cabinet	Gaskets - bottom panel to cabinet	383-800-222
250	Air baffle and screws	Air baffle and screws	383-800-223
260	Hole plug (not shown)	Hole plug, 7/8", for sealing electrical knockouts	561-444-186
270	Water line sealing gaskets	Seals water pipes to cabinet	562-248-740
280	Control/transformer bracket	Bracket to mount control module and transformer	383-800-228
290	Display board bracket	Mounting for the display to side of cabinet	383-800-227

Replacement parts *(continued)*

Figure 111 Jacket assembly — **ECO 70/110/155** (see Figure 110, page 108 for part numbers)



ECO-061

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Replacement parts *(continued)*

Figure 112 Heat exchanger parts **ECO 70/110** (see Figure 113, page 111 for illustration)

Item	Name	Part Number
100	Heat exchanger	383-800-234
105	Heat exchanger with condensate dish, assembled (includes items 100, 120, 130, and 140)	383-800-235
110	Heat exchanger, condensate dish, cover plate, burner, igniter, sight glass, refractory, water sensors, gaskets, silicone, and hardware (includes items 100, 120, 130, 140, 160, 180, 210, 240, and 260)	383-800-236
120	Condensate dish, gaskets, and hardware	383-700-102
130	Gasket to seal heat exchanger to condensate dish	383-700-103
140	Gasket to seal condensate dish to internal flue pipe	383-700-104
150	Refractory insulation & silicone sealant	383-700-105
160	Heat exchanger cover plate, refractory, silicone, and gaskets (includes items 150, 170, 200, 220, and 250)	383-700-108
170	Cover plate gasket (exchanger to gasket)	383-700-109
180	Sight glass kit (bracket, glass, gaskets, and hardware) (includes items 190 and 200)	383-700-185
190	Sight glass	591-419-202
200	Sight glass gaskets, upper and lower	383-700112
210	Igniter kit (igniter, gasket and screws)	383-700-113
220	Igniter to cover plate gasket	590-300-034
240	Burner, gasket, and hardware (includes item 250)	383-700-106
250	Burner gasket	383-700-107
260	Heat exchanger water temperature sensor (one sensor for either boiler inlet or outlet water temperature)	511-724-296

Replacement parts *(continued)*

Figure 113 Heat exchanger assembly **ECO 70/110** (see Figure 112, page 110 for part numbers)



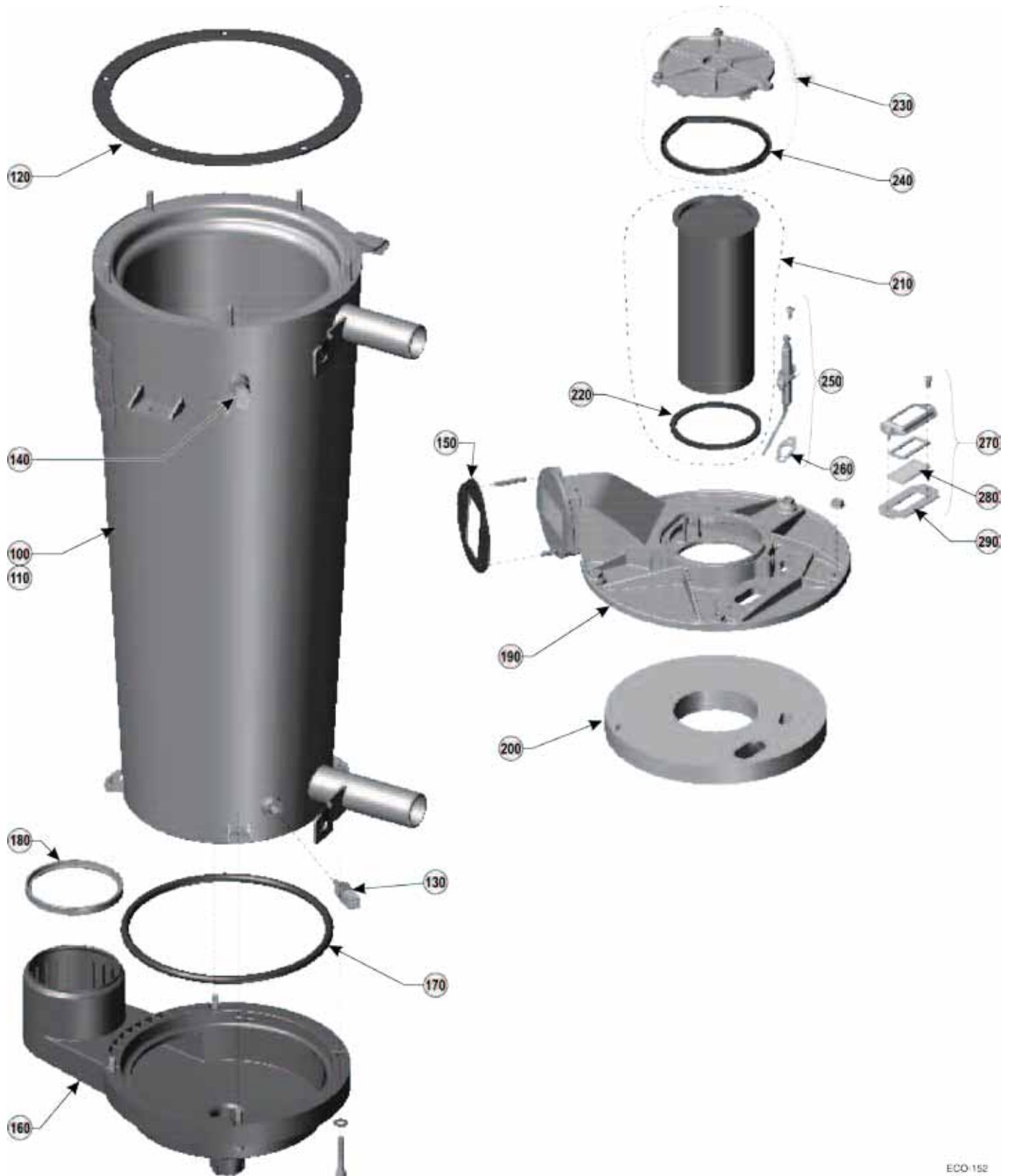
Replacement parts *(continued)*

Figure 114 Heat exchanger parts **ECO 155** (see Figure 115, page 113 for illustration)

Item	Name	Part Number
100	Heat exchanger	383-800-231
105	Heat exchanger with condensate dish, assembled (includes items 100, 160, 170 and 180)	383-800-232
110	Heat exchanger, condensate dish, cover plate, burner, igniter, sight glass, refractory, water sensors, gaskets, silicone, and hardware (includes items 100, 130, 140, 160, 170, 180, 190, 200, 210, and 270)	383-800-233
120	Cover plate/heat exchanger gasket	590-318-054
130	Boiler inlet temperature sensor	511-724-296
140	Boiler outlet temperature sensor (same as item 130)	
150	Blower gasket	590-318-006
160	Condensate dish, gaskets, and hardware	383-700-181
170	Gasket to seal heat exchanger to condensate dish	590-300-039
180	Gasket to seal condensate dish to internal flue pipe	383-700-104
190	Heat exchanger cover plate, refractory and gaskets (includes items 200, 230, 260, and 290)	383-700-184
200	Refractory insulation & silicone sealant	383-700-182
210	Burner, gasket, and hardware (includes item 220)	383-700-183
220	Burner gasket	590-318-055
230	Burner access cover, gasket and hardware (includes item 240)	383-700-202
240	Burner access cover gasket	590-318-053
250	Igniter kit (igniter, gasket and screws) (includes item 260)	383-700-187
260	Igniter gasket	590-300-034
270	Sight glass kit (bracket, glass, gaskets, and hardware) (includes items 280 and 290)	383-700-185
280	Sight glass	591-419-202
290	Sight glass gaskets, upper and lower	383-700-112

Replacement parts *(continued)*

Figure 115 Heat exchanger assembly **ECO 155** (see Figure 114, page 112 for part numbers)



Replacement parts *(continued)*

Figure 116 Combustion components for **ECO 70/110** (see Figure 118, page 115 for illustration)

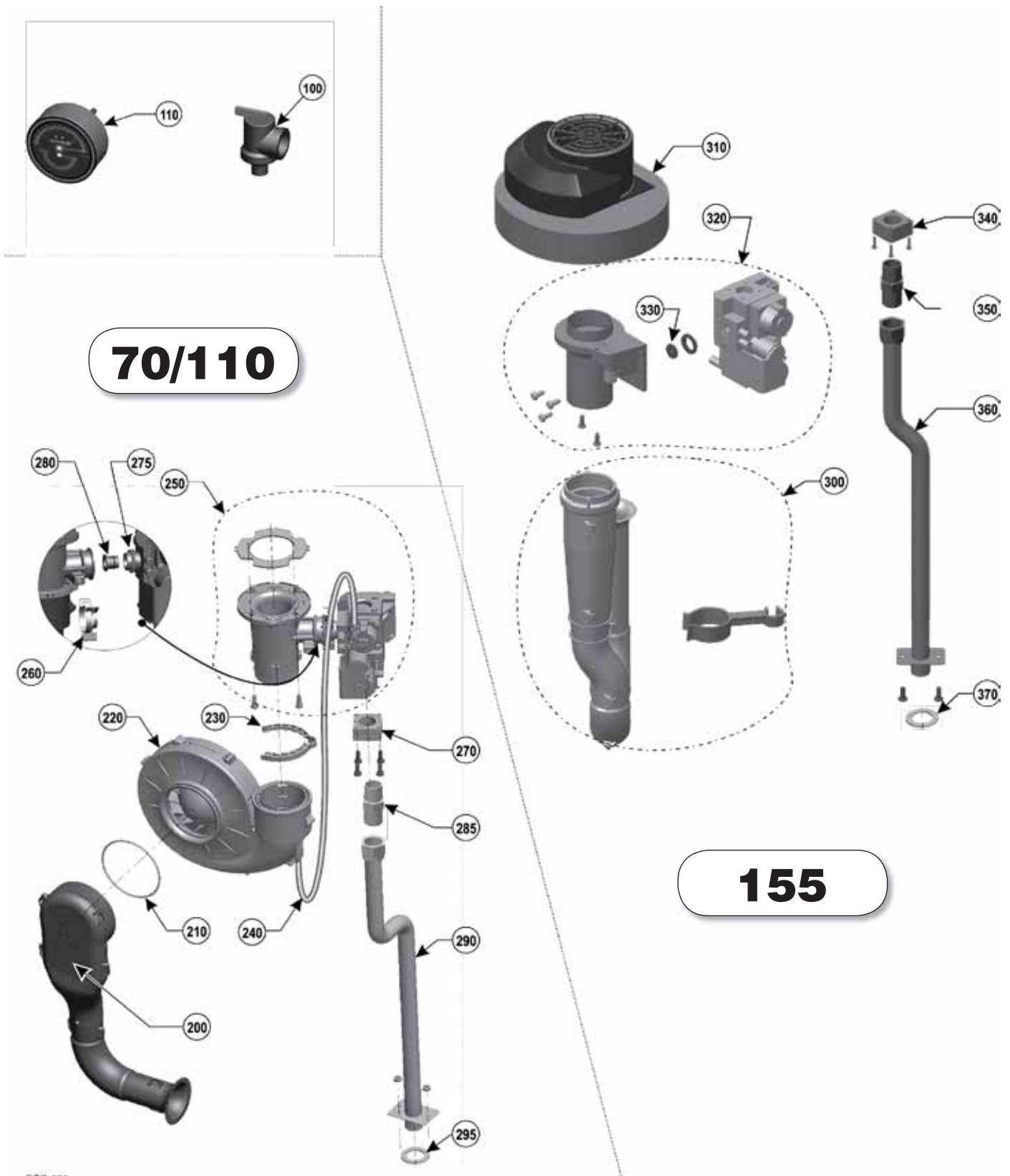
Item	Name	Description / contents	Part Number	Model	
				70	110
100	Relief valve	30 PSIG relief valve — shipped loose for field installation	383-500-095	●	●
110	Pressure & temperature gauge	Shipped loose for field installation	380-000-000	●	●
200	Air inlet silencer	Silencer	383-700-155	●	●
210	Silencer o-ring	O-ring	590-318-049	●	●
220	Blower	Blower, clip and gasket	383-700-157	●	●
230	Blower retainer clip	Clip	562-650-115	●	●
240	Reference tube	Tube to connect blower to gas valve	590-300-001	●	●
250	Gas valve/venturi assembly	Gas valve, venturi (027), gasket, o-ring, clip, and screws	383-700-159	●	
		Gas valve, venturi (040), gasket, o-ring, clip, and screws	383-700-160		●
260	Gas valve retainer clip	Clip	562-650-116	●	●
270	Gas valve adapter block	Threaded block, o-ring, and screws	563-910-031	●	●
275	Gas valve outlet o-ring	O-ring	590-318-045	●	●
280	Propane orifice — boilers converted to propane ONLY — available only with propane conversion kit — see Figure 108, page 106 for information		—	—	—
285	Gas flex line adapter	NPT to flare adapter	562-302-576	●	●
290	Gas flex line	Gas line, seal, and hardware	383-800-224	●	●
295	Gas pipe flange gasket	Gasket gas flex line to cabinet	590-300-027	●	●

Figure 117 Combustion components for **ECO 155** (see Figure 118, page 115 for illustration)

Item	Name	Description / contents	Part Number
100	Relief valve	30 PSIG relief valve — shipped loose for field installation	383-500-095
110	Pressure & temperature gauge	Shipped loose for field installation	383-000-000
300	Air inlet silencer	Silencer with gasket and clip	383-700-203
310	Blower	Blower	383-700-195
320	Gas valve/venturi assembly	Gas valve, venturi, gasket and hardware	383-700-196
330	Propane orifice — boilers converted to propane ONLY — available only with propane conversion kit — see Figure 108, page 106 for information		—
340	Gas valve adapter block	Threaded block, o-ring and screws	563-910-031
350	Gas flex line adapter	NPT to flare adapter	562-302-576
360	Gas flex line	Gas pipe and hardware	383-800-224
370	Gas pipe flange gasket	Gasket, gas flex line to cabinet	590-300-027

Replacement parts *(continued)*

Figure 118 Combustion components for **ECO 70/110 /155**(see Figure 116, page 114 for part numbers)



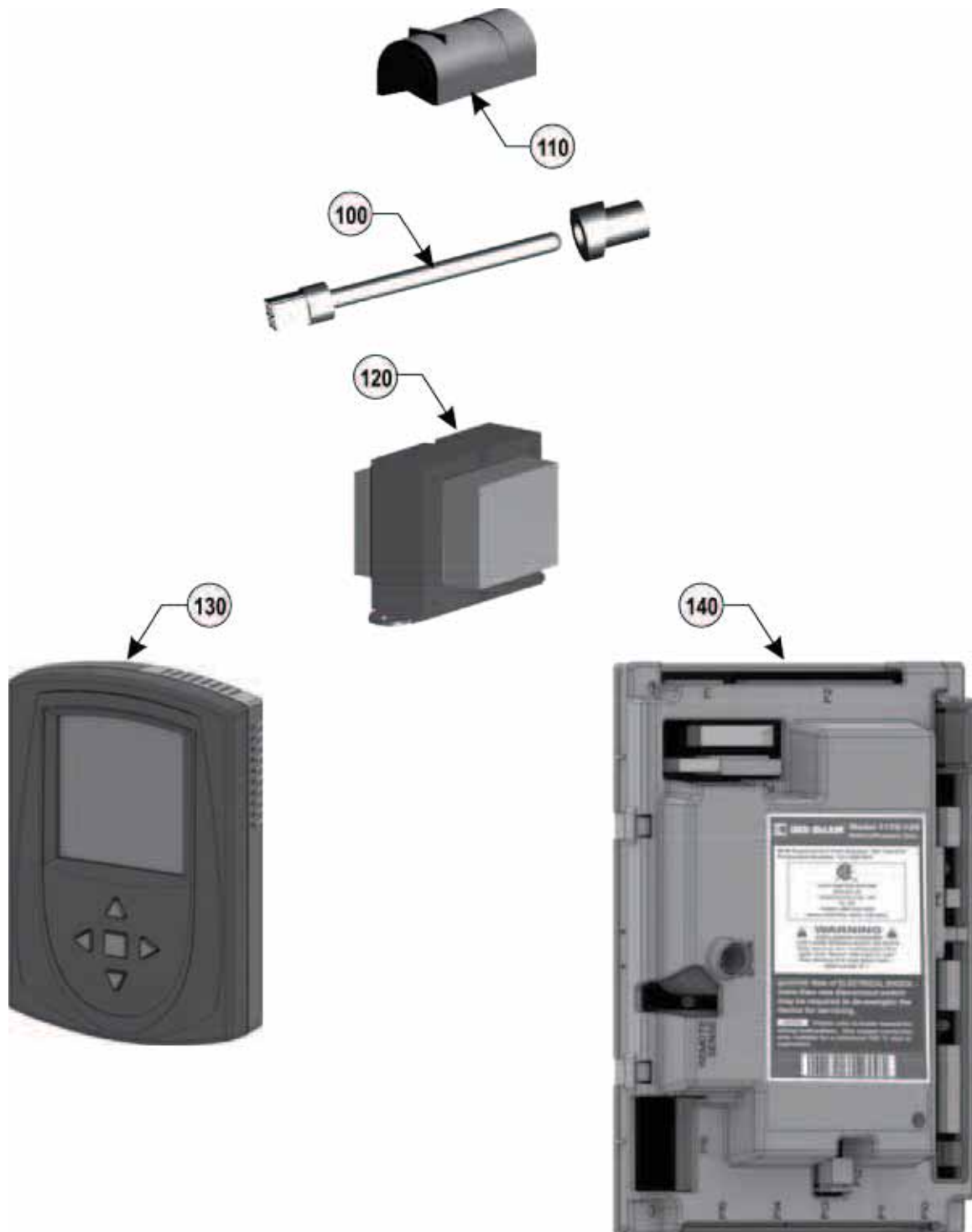
Replacement parts *(continued)*

Figure 119 Controls and electrical components — **ECO 70/110/155** (see Figure 120, page 117 for illustration)

Item	Name	Description / contents	Part Number
100	Flue temperature sensor	One sensor	511-724-292
110	Outdoor temperature sensor	One sensor	510-312-218
120	Transformer 120V/24V	50 VA transformer	511-802-011
130	Display board assembly	Includes circuit board and plastic housing	381-330-019
140	Control module assembly	Control module and housing	381-330-018
150	Wire harness — line voltage (not shown)	Wire harness (ECO 70 or 110)	591-392-001
		Wire harness (ECO 155)	591-392-003
160	Wire harness — low voltage (not shown)	Wire harness (ECO 70 or 110)	591-392-000
		Wire harness (ECO 155)	591-392-002
170	Wire harness — display (not shown)	Connects display to control	591-392-004
180	Ignition cable (not shown)	Ignition cable	591-391-997
190	F1 - 3 amp, fast blow ato (5 fuses) (not shown here — see Figure 95, page 91)	5 Fuses	383-500-603
200	F2 - 12 amp, slow-blow ag (5 fuses) (not shown here — see Figure 95, page 91)	5 Fuses	383-500-604
210	Jumper for low voltage terminal blocks (not shown)	5 jumpers	383-500-641
220	Connector electrical control (not shown)	Includes all 6 connectors	383-800-229
230	Low voltage sealed wire cord grip (not shown)	Seals thermostat wire at entrance to cabinet	591-850-571

Replacement parts *(continued)*

Figure 120 Controls and electrical assemblies — **ECO 70/110/155** (see Figure 119, page 116 for part numbers)



ECO-154