

## Installation and Operation Instructions for

# **NEOTHERM®**

## Modulating Boiler

### Model NTH

Sizes 080–285 MBTU/h

**FOR YOUR SAFETY:** This product must be installed and serviced by a professional service technician, qualified in hot water boiler and heater installation and maintenance. Improper installation and/or operation could create carbon monoxide gas in flue gases which could cause serious injury, property damage, or death. Improper installation and/or operation will void the warranty.

### **⚠ WARNING**

**If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.**

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 nearby 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 gas supplier.

### **⚠ AVERTISSEMENT**

**Assurez-vous de bien suivre les instructions données dans cette notice pour réduire au minimum le risque d'incendie ou d'explosion ou pour éviter tout dommage matériel, toute blessure ou la mort.**

Ne pas entreposer ni utiliser d'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil ou de tout autre appareil.

#### QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:

- Ne pas tenter d'allumer d'appareils.
- Ne touchez à aucun interrupteur. Ne pas vous servir des téléphones dans le bâtiment où vous êtes.
- Appelez immédiatement votre fournisseur de gaz depuis un voisin. Suivez les instructions du fournisseur.
- Si vous ne pouvez rejoindre le fournisseur de gaz, appelez le service des incendies.

L'installation et l'entretien doivent être assurés par un installateur ou un service d'entretien qualifié ou par le fournisseur de gaz.

## SECTION 12 REPLACEMENT PARTS

Use only genuine Manufacturer replacement parts.

### 12.A General Information

To order or purchase parts for these high efficiency residential units, contact your nearest manufacturers dealer or distributor. See the back cover for the manufacturers website and information.

### 12.B Parts List

ITEM DESCRIPTION	SIZE 80	SIZE 105	SIZE 150	SIZE 210	SIZE 285
<b>Jacket Components – See Figure 40</b>					
1 Front Panel Assembly	R60D3200	R60D3200	R60D3200	R60D3200	R60D3200
2 Front Panel Handle	R50D3204	R50D3204	R50D3204	R50D3204	R50D3204
3 Rear Panel	R50D3101	R50D3101	R50D3101	R50D3101	R50D3101
4 Left Side Panel	R8D3002	R10D3002	R15D3002	R20D3002	R20D3002
5 Right Side Panel	R15D3001	R15D3001	R15D3001	R30D3001	R30D3001
6 Left Top Panel	8D3327	10D3327	R15D3303	R20D3303	R20D3303
7 Middle Left Top Panel	8D3328	10D3328	15D3402	20D3403	30D3311
7A Middle Right Top Panel	8D3329	10D3329	15D3403	20D3402	30D3313
8 Right Top Panel	8D3330	10D3330	15D3401	R20D3301	R30D3301
9 Jacket Angle Support	R8D3102 (Right Side)  R15D3102 (Left Side)	R8D3102 (Right Side)  R15D3102 (Left Side)	R15D3102 (2)	R30D3102 (2)	R30D3102 (2)
10 Jacket Support, Left Stanchion	R50D3003	R50D3003	R50D3003	R50D3003	R30D3003
11 Jacket Support, Right Stanchion	R50D3004	R50D3004	R50D3004	R50D3004	R50D3004
12 Front Bezel	R50D7121	R50D7121	R50D7121	R50D7121	R50D7121
13 Display mounting frame	R50D7122	R50D7122	R50D7122	R50D7122	R50D7122
(12&13) Complete Assembly	R50D7120	R50D7120	R50D7120	R50D7120	R50D7120

### Internal Components – See Figure 42

20 Base Assembly	R15D1100	R15D1100	R15D1100	R30D1100	R30D1100
21 Left Rear Support Stanchion	R50D1001	R50D1001	R50D1001	R50D1001	R50D1001
22 Left Front/Right Rear Support Stanchion	R50D1002	R50D1002	R50D1002	—	R50D1002 (2)
23 Cantilevered Base Stanchion	R15D1002	R15D1002	R15D1002	R40D1001	R40D1001
24 Brace, Front, HX Stanchion	20D1005	20D1005	20D1005	20D1005	85D1005
24A Brace, Rear, HX Stanchion	R50D1005	R50D1005	20D1007	20D1007	R50D1005
25 Mounting Rail	R15D1004	R15D1004	R15D1004	R30D1004	R30D1004 (2)
27 Condensate Trap Assy	R20D4020	R20D4020	R20D4020	R20D4020	R50D4020
28 Heat Exch. Rail Clip	R50D1006 (2)	R50D1006 (2)	—	—	R50D1006 (2)

ITEM DESCRIPTION	SIZE 80	SIZE 105	SIZE 150	SIZE 210	SIZE 285
30 PVC Reducer	—	—	RP2053000	RP2053000	RP2052900
30a CPVC Reducer or Coupling	RD2010501	RD2010501	RP2065600	RP2065600	-
30b 2" Dia. Pipe, CPVC	RD2010212	RD2010212	RD2010213	RD2010213	-
31 Hose Barbed Adapter	RP2067100	RP2067100	RP2056100	RP2056100	RP2056100
33 Air Inlet/Exhaust Bracket	R8D3005	10D3005	R20D3120	R20D3120	30D3505

**Gas Train Components – See Figure 41**

40 Combustion Air Blower	RA2113700	RA2113700	RA2107500	RA2114200	RA2114200
41 Gas Valve/Venturi	RV2017900	RV2017901	RV2017902	RV2017903	RV2017904
42 On/Off Rectifier Module	E2324300	E2324300	E2324300	E2324300	E2324300
47 Gas Valve O-Ring	R30-227	R30-227	R30-227	R30-227	R30-227
51 Duct/Venturi Transition	R10D5021	R10D5021	R10D5021	R10D5013	R30D5013
52 Gas Supply Pipe	RP2051700	RP2051400	RP2051400	RP2051400	RP2051500
55 Air Inlet Flex Hose	D0091403	RD0091403	RD0091403	D0091401	D0091401

**Heat Exchanger Components – See Figure 43**

60 Heat Exchanger	RS2106900	RS2105500	RS2105800	RS2105700	RS2111100
N.S. Pump (Not Shown)	A2114900	A0076700	A0076700	14-55802	A2114400
62 Low Water Cutoff Switch	—	—	—	—	—
63 Inlet Water Temp Sensor	RE2320600	RE2320600	RE2320600	RE2320600	RE2320600
64 Duplex Outlet Water Temperature Sensor	RE2319900	RE2319900	RE2319900	RE2319900	RE2319900
65 Duplex Stack Temperature Sensor	RE2319700	RE2319700	RE2319700	RE2319700	RE2319800
66 Pressure Relief Valve, 30 psi	RA2138500	RA2138500	RA2138500	RA2138500	RA2138700 (75 PSI)
67 Air Vent	R1-592	R1-592	R1-592	R1-592	R1-592
68 Burner Door w/gasket	RS2112801	RS2112801	RS2112801	RS2112801	RS2112801
68A Burner Door Gasket (rubber)	R2069400	R2069400	R2069400	R2069400	R2069400
69 Burner Gasket	RS2108500	RS2108500	RS2108500	RS2108500	RS2108500
69A Gasket Set (burner gasket, ignitor gasket, sensor gasket & burner door gasket)	RS2109100	RS2109100	RS2109100	RS2109100	RS2109100
70 Front Refractory Tile	RT2109001	RT2109001	RT2109001	RT2109001	RT2109001
71 Rear Refractory Tile	R50D2021	R50D2021	R50D2021	R50D2021	R50D2021
72 Main Burner w/gasket	R2069101	R2069102	R2069103	R2069104	R2069105
73 Flame Sensor w/gasket	R2069200	R2069200	R2069200	R2069200	R2069200
74 Ignitor w/gasket	R2069300	R2069300	R2069300	R2069300	R2069300
74A Ignitor Gasket	RW2013300	RW2013300	RW2013300	RW2013300	RW2013300
74B Screw, Ignitor/Flame Sensor	S2112700	S2112700	S2112700	S2112700	S2112700
74C Flame/Sensor Gasket	RW2013400	RW2013400	RW2013400	RW2013400	RW2013400

ITEM DESCRIPTION	SIZE 80	SIZE 105	SIZE 150	SIZE 210	SIZE 285
75 Air/Gas Channel	RS2108400	RS2108600	RS2108600	RS2108700	RS2108700
75A Screw, Air/Gas Channel	RS2109400 (5)	RS2109400 (5)	RS2109400 (5)	RS2109400 (5)	RS2109400 (5)
76 Drain	R10-143	R10-143	R10-143	R10-143	R10-143
77 Sight Glass	R50D2020	R50D2020	R50D2020	R50D2020	R50D2020

**Electrical Components – See Figure 44**

80 Control Panel Enclosure	R50D7001	R50D7001	R50D7001	R50D7001	R50D7001
81 Transformer	RE2108700	RE2108700	RE2108700	RE2108700	RE2108700
82 High Voltage Shield	R50D7002	R50D7002	R50D7002	R50D7002	R50D7002
83 Top Panel Bracket	R50D7003	R50D7003	R50D7003	R50D7003	R50D7003
84 Electronic Control Module, Standard	RXD7199	RXD7199	RXD7198	RXD7198	RXD7198
85 Rocker Switch	RE2322700	RE2322700	RE2322700	RE2322700	RE2322700
86 Control Display	RE2347200	RE2347200	RE2347200	RE2347200	RE2347200
87 Wire Harness	R50D7412	R50D7412	R50D7412	R50D7414	R50D7408
89 Air Pressure Switch	RE2334700	RE2334700	RE2334700	RE2334701	RE2334700
N.S. Pump Harness/Conduit (Not Shown)	50D7601	50D7601	50D7601	50D7600	50D7602

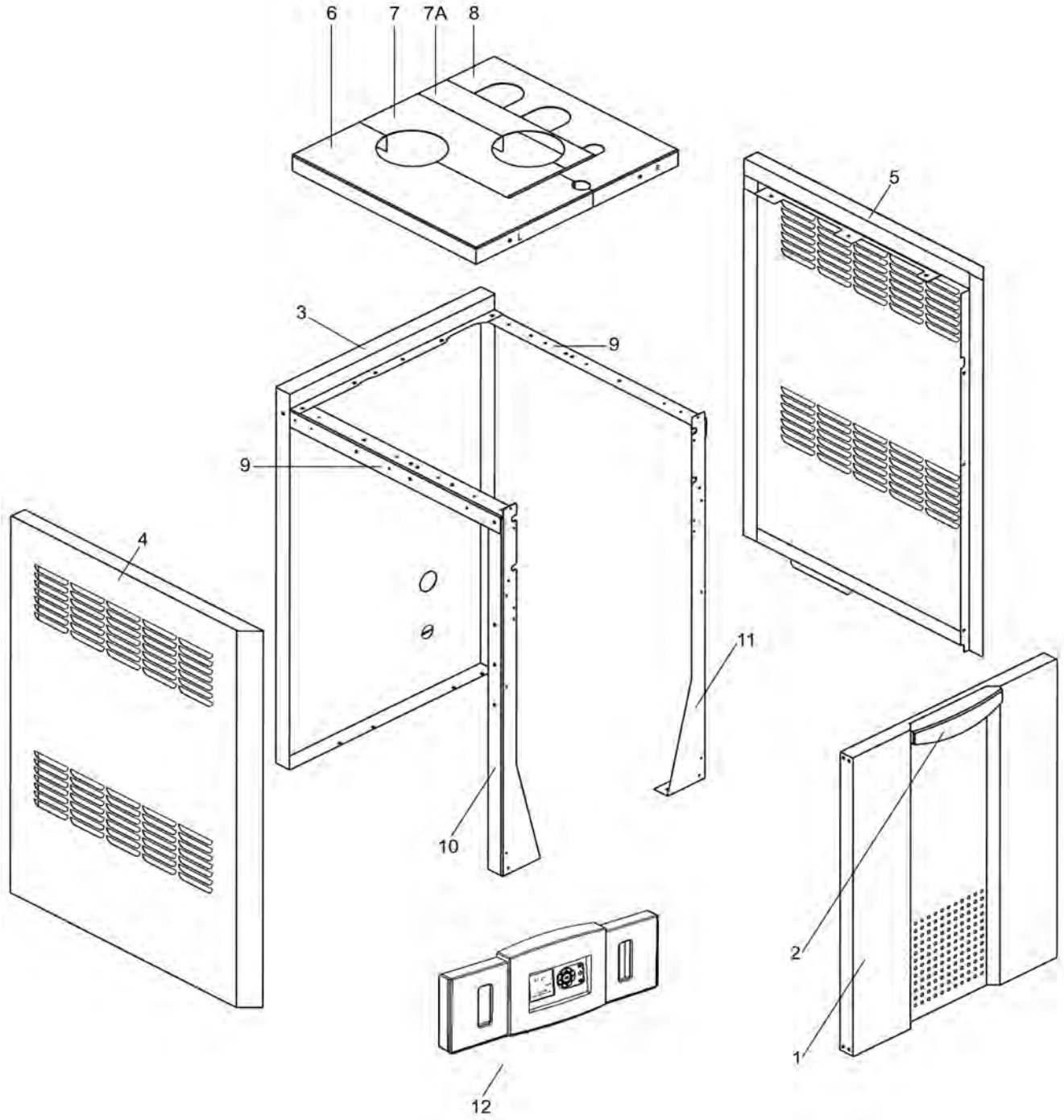
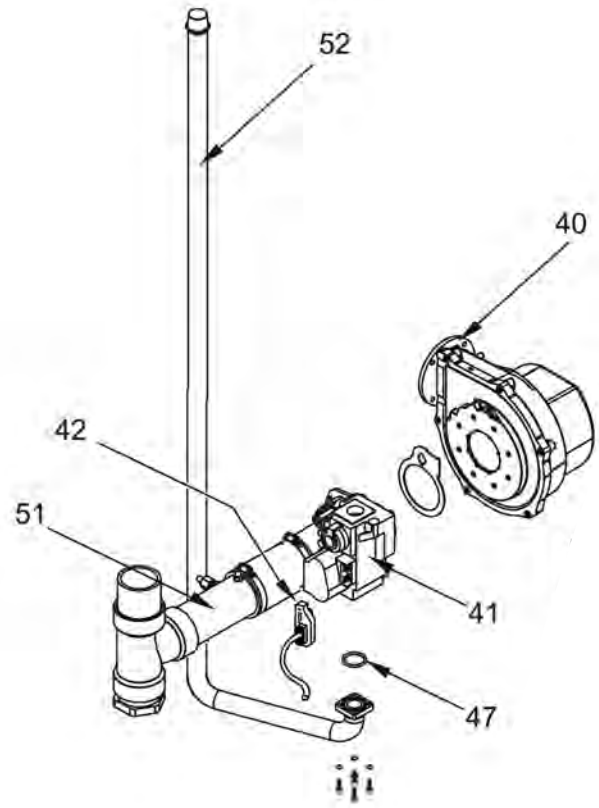
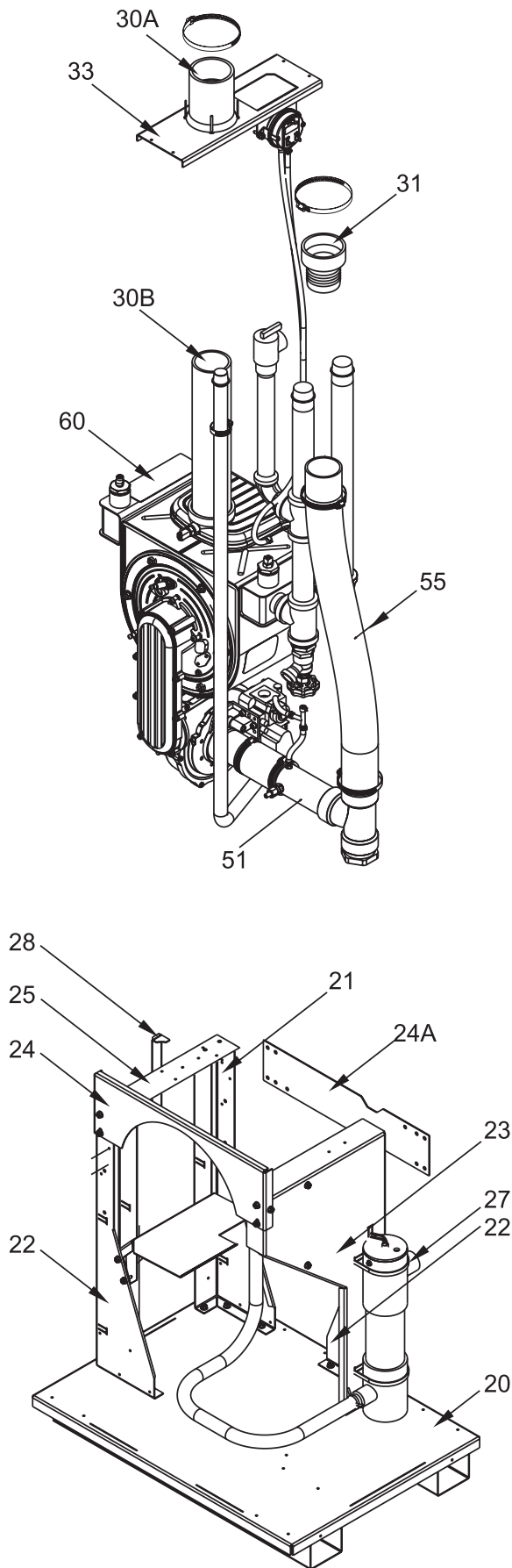


Figure 40. - Jacket Components



**Figure 41. - Gas Train Components, Sizes 80-285**

**Figure 42. - Internal Components, Sizes 80-285**

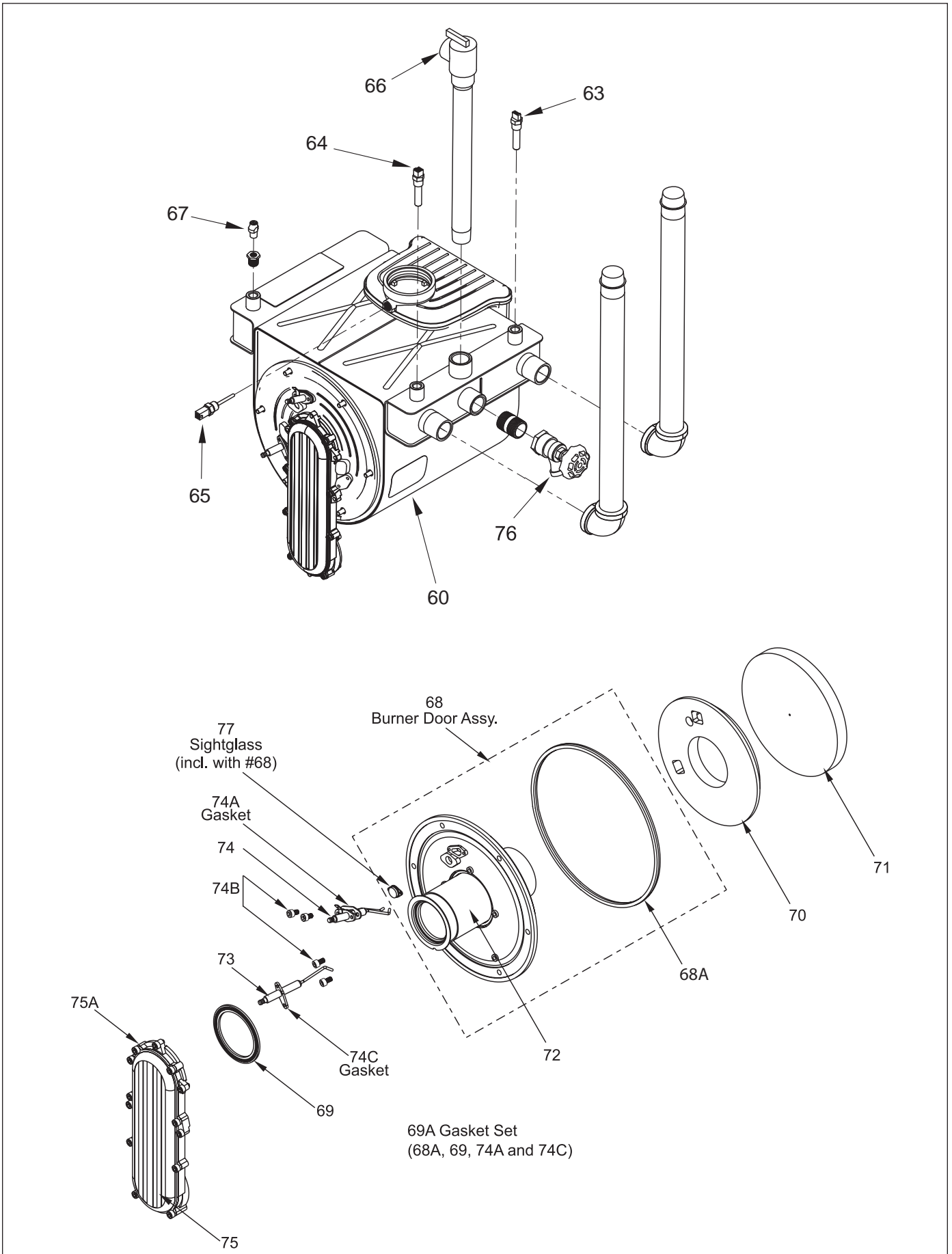
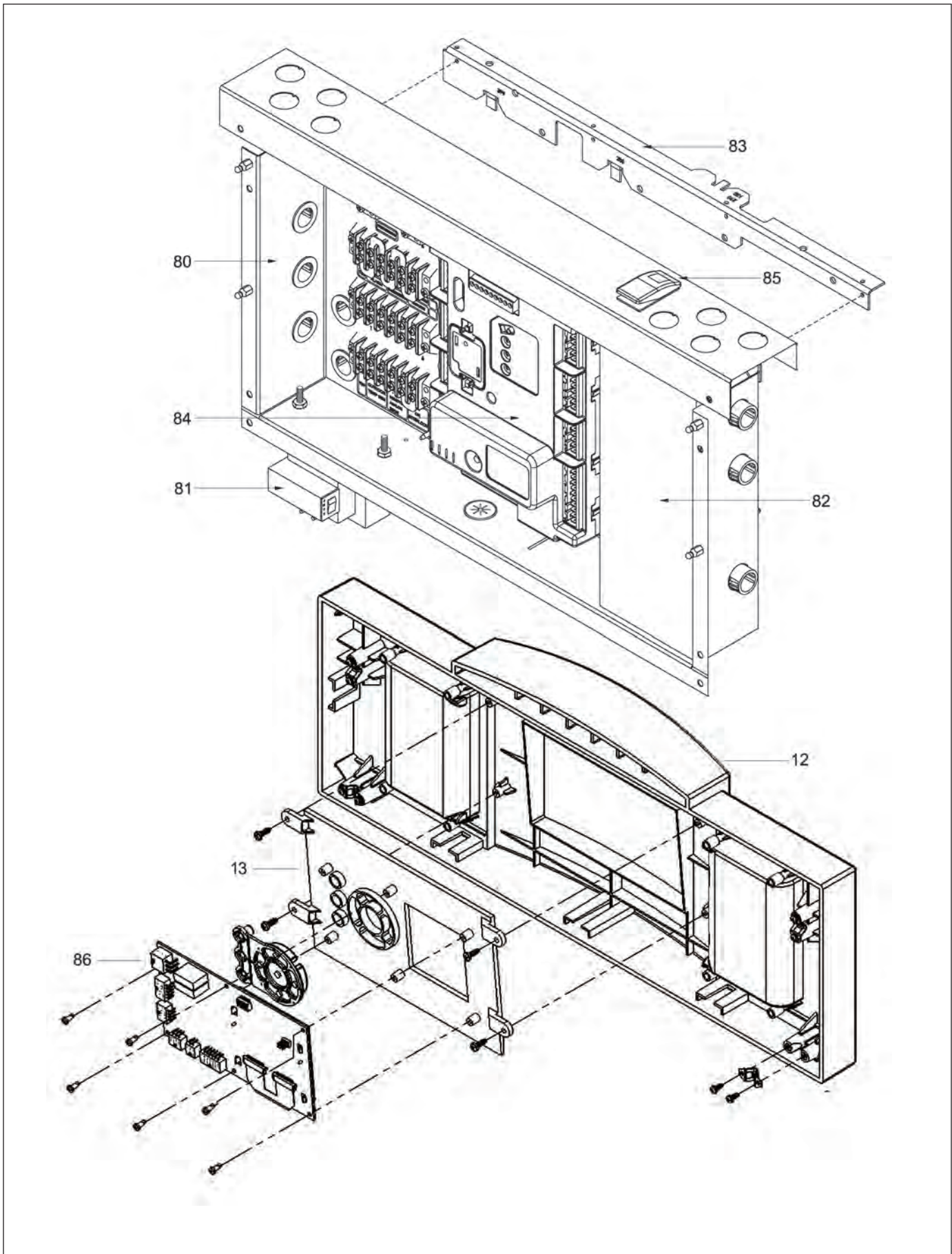


Figure 43. - Heat Exchanger Components



**Figure 44. - Electrical Components**