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# **Air heater**

## **PLANAR-2D**

### **Part and Assembly Catalog**

ADVR.165.00.00.000 KDS

April 2017



**Autoterm** | DIESEL AIR HEATERS  
**europe** | AND ENGINE PREHEATERS

This Part and Assembly Catalog is intended for PLANAR-2D air heater installation, maintenance, and repair personnel.

OOO Advers offers the following air heater models:

- PLANAR-2D-24/12;
- PLANAR-2D-24/12-i;
- PLANAR-2D-24/12-MK;
- PLANAR-2D-24/12-TM;
- PLANAR-2D-24/12-MK2.

The Catalog consists of the following sections:

- 1) **Air heater components** are presented as the product structure (Fig. 1) and the bill of materials (BOM), Table 1.
- 2) **Air heater** components are presented as the product structure (Fig. 2) and the bill of materials (BOM), Table 2.

The products have different control units, fuel pumps, blowers, plugs, and configurations.

The Catalog helps identify the heater parts and assemblies that may fail in operation. The numbers in the cells indicate the amount supplied as standard.

**NOTE: Please specify the manufacturer's part IDs listed in the tables for ordering spare parts and components.**

**If you have questions on maintenance, please contact Autoterm company Technical support center +371 25529999, E-mail: [service@autoterm-europe.com](mailto:service@autoterm-europe.com) or visit our web site [www.autoterm-europe.com](http://www.autoterm-europe.com)**

**WARNING:**

1. The glow plugs included are made in Japan. The plugs shall be tested under **9 V** (for 12 V heaters) or **18 V** (for 24 V heaters).



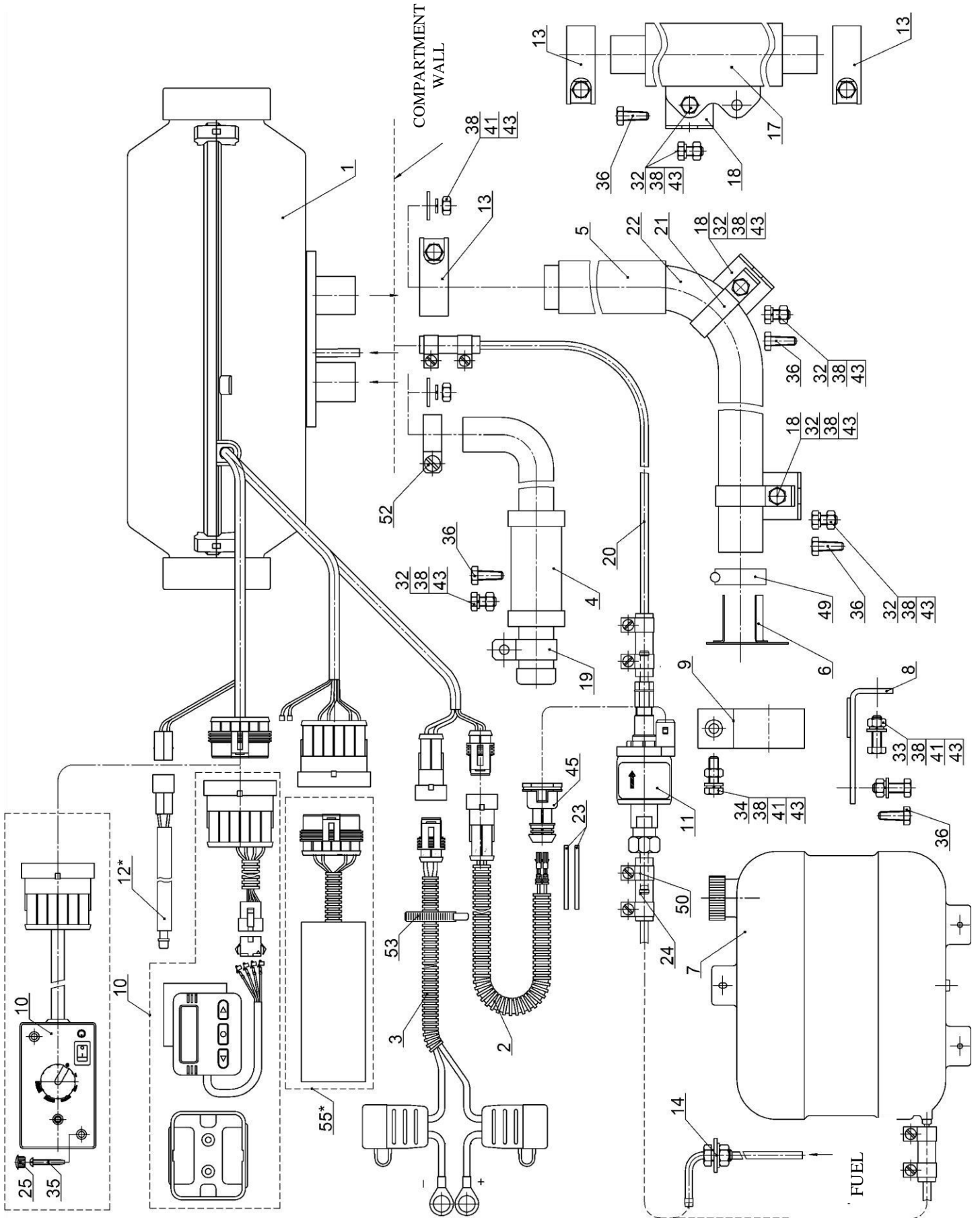


Fig. 1 Air Heater Structure

Table 1

Pos.	Part/Assembly Name and ID	Manufacturer's MQID	Remark	Air Heaters									
				PLANAR-2D-24	PLANAR-2D-12	PLANAR-2D-24-i	PLANAR-2D-12-i	PLANAR-2D-24-MK	PLANAR-2D-12-MK	PLANAR-2D-24-TM	PLANAR-2D-12-TM	PLANAR-2D-24-MK2	PLANAR-2D-12-MK2
	Air Heater Number			1	2	3	4	5	6	7	8	9	10
1	Heater												
	ADVR.165.01.00.000	Assy.2576	24B	1				1		1		1	
	ADVR.165.01.00.000-01	Assy.2611	12B		1				1		1		1
	ADVR.165.01.00.000-02		24 V			1							
	ADVR.165.01.00.000-03		12 V				1						
2	Fuel pump harness												
	ADVR.063.03.00.000	Assy.2061		1	1	1	1	1	1	1	1	1	1
3	Power harness												
	ADVR.063.04.00.000	Assy.1693	24 V	1		1		1		1		1	
	ADVR.063.05.00.000	Assy.1499	12 V		1		1		1		1		1
4	Air intake												
	ADVR.119.02.00.000	Assy.2552	With a damper	1	1	1	1	1	1	1	1	1	1
5	Heat insulation												
	ADVR.010.12.00.00.000-01	Assy.162		1	1	1	1	1	1			1	1
	Insulating sleeve (28x5x450 mm)									1	1		
6	Shield												
	ADVR.010.17.01.000	Assy.866		1	1	1	1	1	1	1	1	1	1
7	Tank												
	ADVR.016.01.00.000	Assy.291						1	1				
8	L-profile and gasket												
	ADVR.016.02.00.000	Assy.292						3	3				
9	Fixing strap (for the fuel pump)												
	ADVR.048.12.00.000	Assy.1467		1	1	1	1	1	1	1	1	1	1
10	Control panel												
	ADVR.212.00.00.000	Assy.3340	ПУ-22	1	1	1	1	1	1				
	ADVR.168.00.00.000-02	Assy.3355	ПУ-22TM							1	1		
	ADVR.125.02.00.000	Assy.2051	ПУ-10M									1	1
	ADVR.066.02.00.000-02	Assy.2067	Interface harness	1	1	1	1	1	1	1	1		
11	Fuel pump												
	ADVR.209.00.00.000-04	Assy.3650	ТН9-4,4мл-24В	1		1		1				1	
	ADVR.209.00.00.000-01	Assy.3635	ТН9-4,4мл-12В		1		1		1				1
	Dosing pump Thomas magnet		P327 12B									1	
	Dosing pump Thomas magnet		P327 24B							1			
12	Interior sensor												
	ADVR.081.00.00.000	Assy.1458	Optional										
13	Fixing strap 26x28 (for the exhaust pipe)												
	ADVR.051.03.00.000	Assy.2649		1	1	1	1	1	1			1	1
	Heavy-duty strap 26-28									3	3		



	Air Heater Number			1	2	3	4	5	6	7	8	9	10
14	Fuel suction pipe												
	ADVR.010.06.00.000	Assy.807		1	1	1	1					1	1
	ADVR.010.06.00.000-01	Assy.3228								1	1		
17	Damper												
	ADVR.051.07.00.000	Assy.2712								1	1		
18	Bracket												
	04TC.451.00.00.00.002	D.2		2	2	2	2	2	2	3	3	2	2
19	Strap												
	ADVR.010.00.00.010	D.845		1	1	1	1	1	1	1	1	1	1
20	Fuel line												
	ADVR.010.00.00.001	D.879	Nylon pipe PA11-5.3x1.65 L=5,500 mm	1	1	1	1	1	1	1	1	1	1
21	Strap												
	ADVR.051.00.00.001	D.2247		2	2	2	2	2	2			2	2
	04TC.451.00.00.00.004	D.92								2	2		
22	Exhaust pipe												
	ADVR.051.00.00.005	D.2283	Metal hose L=1,000 mm	1	1	1	1	1	1			1	1
	ADVR.10.17.00.001	D.1106	Metal hose L=1,000 mm							1	1		
23	Insulator												
	ADVR.098.32.00.002	D.2555	Heat-shrink tubing κ-2 4.2 / 2.1 mm L=35 mm	2	2	2	2	2	2			2	2
24	Coupling												
	ADVR.010.00.00.003	D.880	L=70 mm	4	4	4	4	4	4	4	4	4	4
25	Plug												
	05TC.451.04.00.00.004	D.115										2	2
32	Bolt M6x16 GOST 7798			5	5	5	5	5	5	7	7	5	5
33	Bolt M6x20 GOST 7798 (fuel tank)							6	6				
34	Bolt M6x25 GOST 7798 (fuel pump)			1	1	1	1	1	1	1	1	1	1
35	Screw 3.6x38.1 (control panel)											2	2
36	Screw 6.4x16 (self-tapping)			3	3	3	3	6	6	4	4	3	3
38	Nut M6			10	10	10	10	16	16	12	12	10	10
41	Washer Ø6 (kingsize)			5	5	5	5	11	11	5	5	5	5
43	Washer Ø6			8	8	8	8	14	14	10	10	8	8
45	Connector AMR 282762-1 (for the fuel pump harness)			1	1	1	1	1	1	1	1	1	1
49	Strap Mikalor 20x32 For the exhaust pipe			1	1	1	1	1	1	1	1	1	1
50	Strap Mikalor mini 10/9			8	8	8	8	8	8	8	8	8	8
52	Strap Mikalor 25x40 For the air intake			1	1	1	1	1	1	1	1	1	1
53	Plastic strap 200x3.6			15	15	15	15	15	15	15	15	15	15
55	CENTERION modem												
	ADVR.054.00.00.000	Assy.2645	Optional										



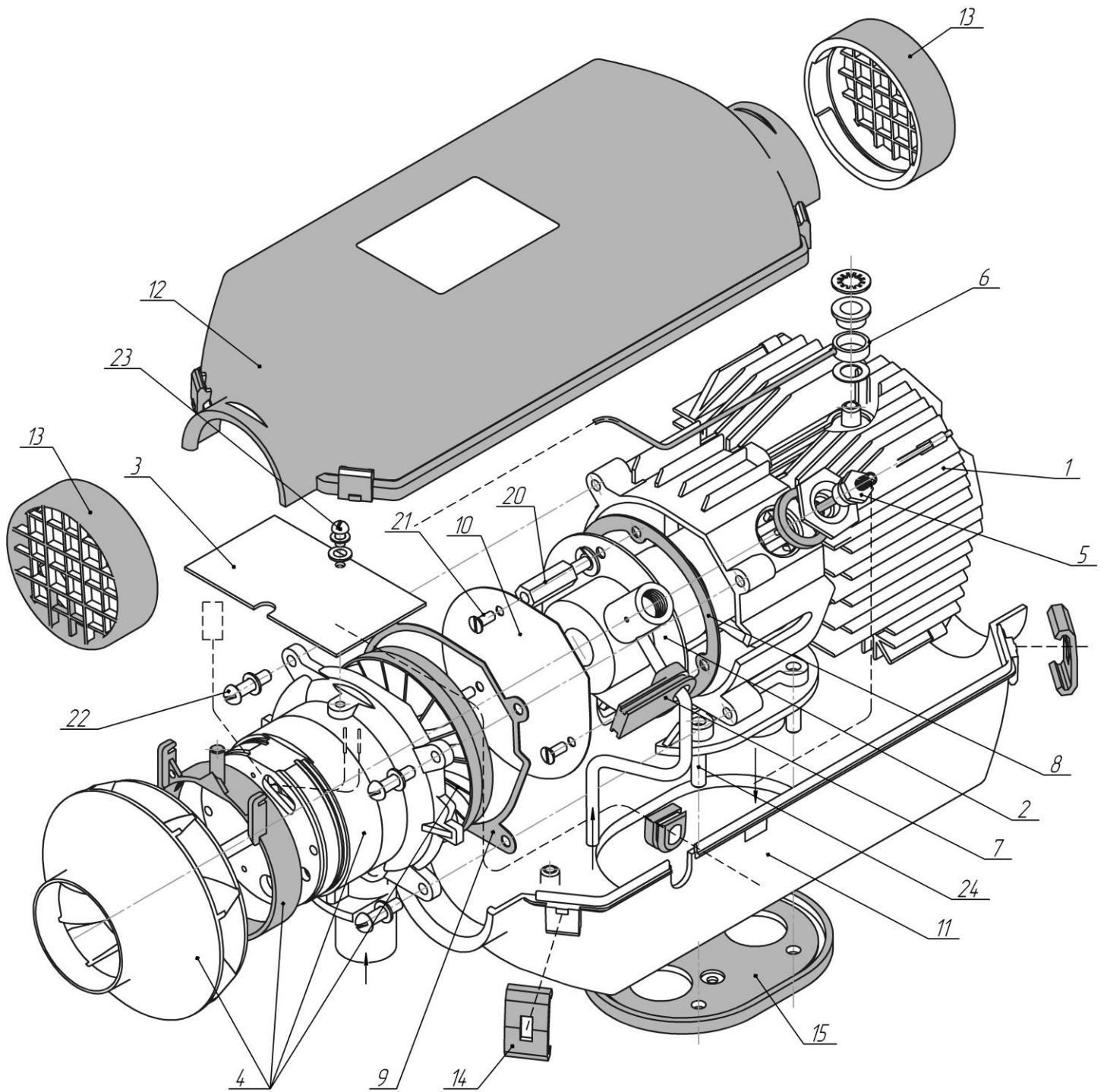


Fig.2 Heater Structure.

Table 2.

Pos.	Part/Component Name and ID	Manufacturer's MQID	Remark	Heaters			
				PLANAR-2D-24	PLANAR-2D-12	PLANAR-2D-24-i	PLANAR-2D-12-i
	Heater Number			1	2	3	4
1	Heat exchanger						
	ADVR.165.02.00.001	D.2654		1	1	1	1
*	ADVR.165.02.00.002	D.4055					
2	Combustion chamber						
*	ADVR.165.03.00.000	Assy.2578		1	1	1	1
3	Control module						
	ADVR.165.05.00.000	Assy.2581	24 V	1			
	ADVR.165.05.00.000-01	Assy.2618	12 V		1		
4	Blower						
	ADVR.165.04.00.000	Assy.2579	24 V	1		1	
	ADVR.165.04.00.000-01	Assy.2613	12 V		1		1
5	Glowplug assembly						
	ADVR.165.07.00.000	Assy.2583	Glowplug 24 V	1		1	
	ADVR.165.07.00.000-01	Assy.2615	Glowplug 12 V		1		1
	ADVR.165.02.00.006	D.2822	Sealing sleeve	1	1	1	1
	ADVR.165.02.00.007	D.2659	Metallic sleeve	1	1	1	1
6	Temperature sensor assembly (Assy.2704 repair kit)						
	ADVR.165.06.00.000	Assy.2582	Temperature sensor	1	1	1	1
*	ADVR.165.06.00.000-03	Assy.3076		1	1	1	1
	ADVR.165.02.00.008	D.2660	Washer (mica)	1	1	1	1
*	ADVR.165.02.00.008-01	D.3939					
	ADVR.165.02.00.009	D.2661	Insulator	1	1	1	1
*	Screw M5x10 DIN 75000CE			1	1	1	1
*	Washer Ø5		King size	1	1	1	1
	Spring washer Ø8 DIN 137			1	1	1	1
7	Fuel pipe sealing						
	ADVR.165.02.00.005	D.2658		1	1	1	1
8	Combustion chamber gasket						
	ADVR.165.02.00.002	D.2655		1	1	1	1
9	Blower gasket						
	ADVR.165.02.00.003	D.2656		1	1	1	1
10	Shield						
	ADVR.165.02.00.004	D.2657	till January, 2015	1	1	1	1
	ADVR.165.02.00.004-01	D.2967	Since January, 2015	1	1	1	1
11	Bottom enclosure						
	ADVR.165.01.00.001	D.2647		1	1	1	1
12	Top enclosure						
	ADVR.165.01.00.002	D.2648		1	1	1	1
13	Grid						
	ADVR.165.01.00.003	D.2649		2	2	2	2



14	Grips						
	ADVR.063.01.00.008	D.1683		4	4	4	4
	Heater Number			1	2	3	4
15	Enclosure sealing						
	ADVR.165.01.00.004	D.2650		1	1	1	1
20	Combustion chamber fixing						
	Screw M5x12 DIN 7500 CE		till January, 2015	3	3	3	3
	ADVR.165.02.00.010	D.2905	Sleeve Since January, 2015	3	3	3	3
	Lock washer Ø5			3	3	3	3
21	Screen fixing						
	Screw M4x10 DIN965		flush	3	3	3	3
22	Blower fixing						
	Screw M5x20 DIN 7500 CE			4	4	4	4
	Lock washer Ø5			4	4	4	4
23	Control module fixing						
	Screw M4x10 DIN 7500 CE			1	1	1	1
	Lock washer Ø4			1	1	1	1
24	Studs						
	M6x18			3	3	3	3
	M6 I20 DIN 939			1	1	1	1

\*

The heaters manufactured prior to January 2015 had a combustion chamber shown in Fig. 3. The heaters manufactured after January 2015 have a new combustion chamber shown in Fig. 4.

For replacing an old combustion chamber (Fig. 3) with a new one (Fig. 4) the screen (Pos. 10, Table 2) and the sleeves (Pos. 20, Table 2) are to be purchased/replaced.



Fig.3



Fig.4

The heaters manufactured prior to November 2016 had a heat exchanger (Prt.2654) and a temperature sensor (Assy.2582).

The heaters manufactured after November 2016 have a new heat exchanger (Prt.4055) and a new temperature sensor (Assy.3076).

The heat exchangers and the temperature sensors are not interchangeable since the sensor sockets differ in size.