



From Serial Number: 07PHG1001 to Date

Hydrogen Gas Generator

H2PEM-100 / H2PEM-165 / H2PEM-260 / H2PEM-510

Parts Manual












Introduction













This manual identifies the kits available for both preventative maintenance and unforeseen breakdown repairs on the Parker Balston range of ultra high purity hydrogen generators.

How to use this manual:



- 1 Identify the model of generator from the rating plate.
- 2 Turn to "Service Kits" on page 3 for a full listing of scheduled maintenance kits available.
- 3 Turn to "Repair Kits" on page 4 for a full listing of breakdown spares available.
- 4 All items identified with a kit number are available for order.
- 5 Page references in the comments column identify that component parts of the assembly are available.
- 6 Items not specified by a kit number are not available as a repair kit.
- 7 Items identified by **PM** are only available in the "Service Kits" on page 3.
- 8 Take careful note of the quantities supplied within each kit as, depending upon the model of generator, there may be a requirement to order multiple kits.
- 9 Kit numbers starting with the letter 'S' identify that the part requires a secondary operation (e.g painting, programming, pressure testing) prior to shipment. These items are not held on stock and will be made to order.

Service Intervals

Component	Operation	Daily	Weekly	6Months (4000Hrs.)	12Months (8000Hrs.)	24Months (16000Hrs.)
Generator	Check the power ON indicator is illuminated.					
Generator	Check the STATUS / FAULT Indicator on the control panel.					
Generator	Check the water level.					
Generator	Check the water conductivity.					
Generator	Check the water bottle spillage drains					
Generator	Check for leaks.					
Generator	Recommended Service A 6 Month Service.					
Generator	Recommended Service B 24 Month Service.					
Generator	Recommended Service C Check the desiccant cartridge and replace if opaque.					

Service	6 Months (4000 Hrs.)	12 Months (8000 Hrs.)	18 Months (12000 Hrs.)	24 Months (16000 Hrs.)	30 Months (20000 Hrs.)	36 Months (24000 Hrs.)	42 Months (28000 Hrs.)	48 Months (32000 Hrs.)	54 Months (36000 Hrs.)	60 Months (40000 Hrs.)	66 Months (44000 Hrs.)	72 Months (48000 Hrs.)
A												
B												

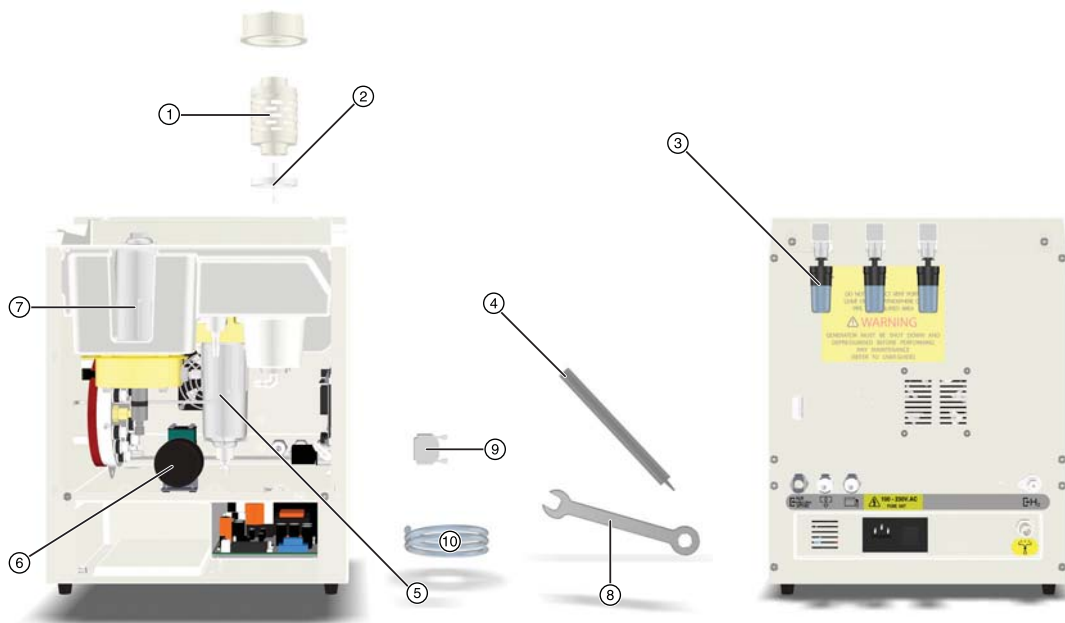
Key:

	Check		Essential Procedure
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Servicereminder.com is a web based reminder service developed to track when service work is due to be carried out. This ensures that parts can be ordered in advance and that the service is carried out at the optimum time in accordance with the manufacturers recommendations. This service is free to use, simply log on to www.servicereminder.com and select New User Registration.

Service Kits



Recommended Service A - Required every 4000Hrs (6 months)



Description	Catalogue Number	Technical Reference	Contents
Filter Service:	MKH2PEM-6M	MKH2PEM-6M	(1) Deioniser cartridge (2) 100 micron water filter (3) Environmental filters (x3) (4) Filter replacement tool

Recommended Service B - Required every 16000Hrs (24 months)



Description	Catalogue Number	Technical Reference	Contents
Complete Service:	MKH2PEM-24M	MKH2PEM-24M	(1) Deioniser cartridge (2) 100 micron water filter (3) Environmental filters (x3) (4) Filter replacement tool (5) Float (6) Water pump (7) Desiccant cartridge (8) Cartridge spanner (wrench) (9) Service reset dongle (10) 1/4" Tygon tube

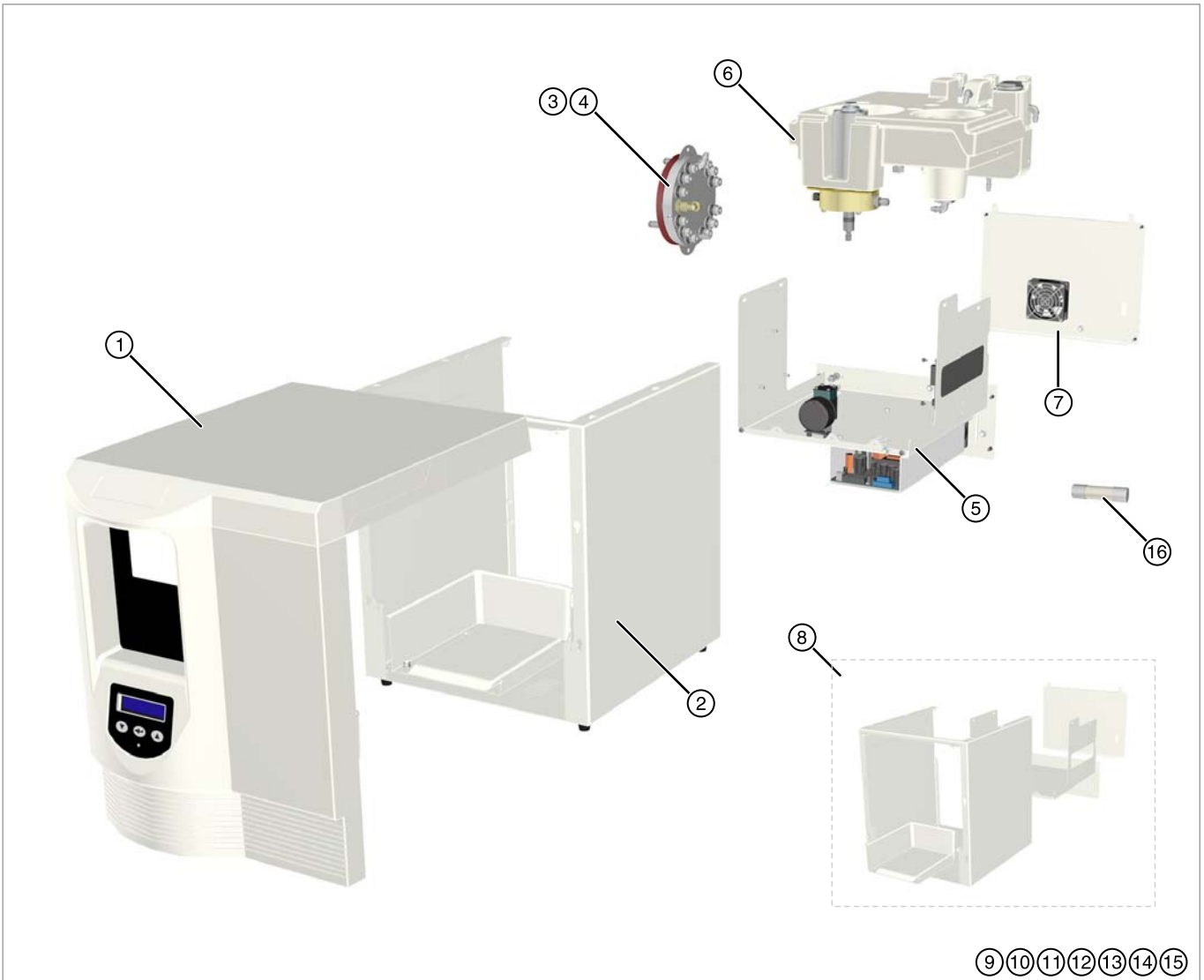
Recommended Service C - As required



Description	Catalogue Number	Technical Reference	Contents
Replace Cartridge:	MKH2PEM-D	MKH2PEM-D	(7) Desiccant cartridge (8) Cartridge spanner

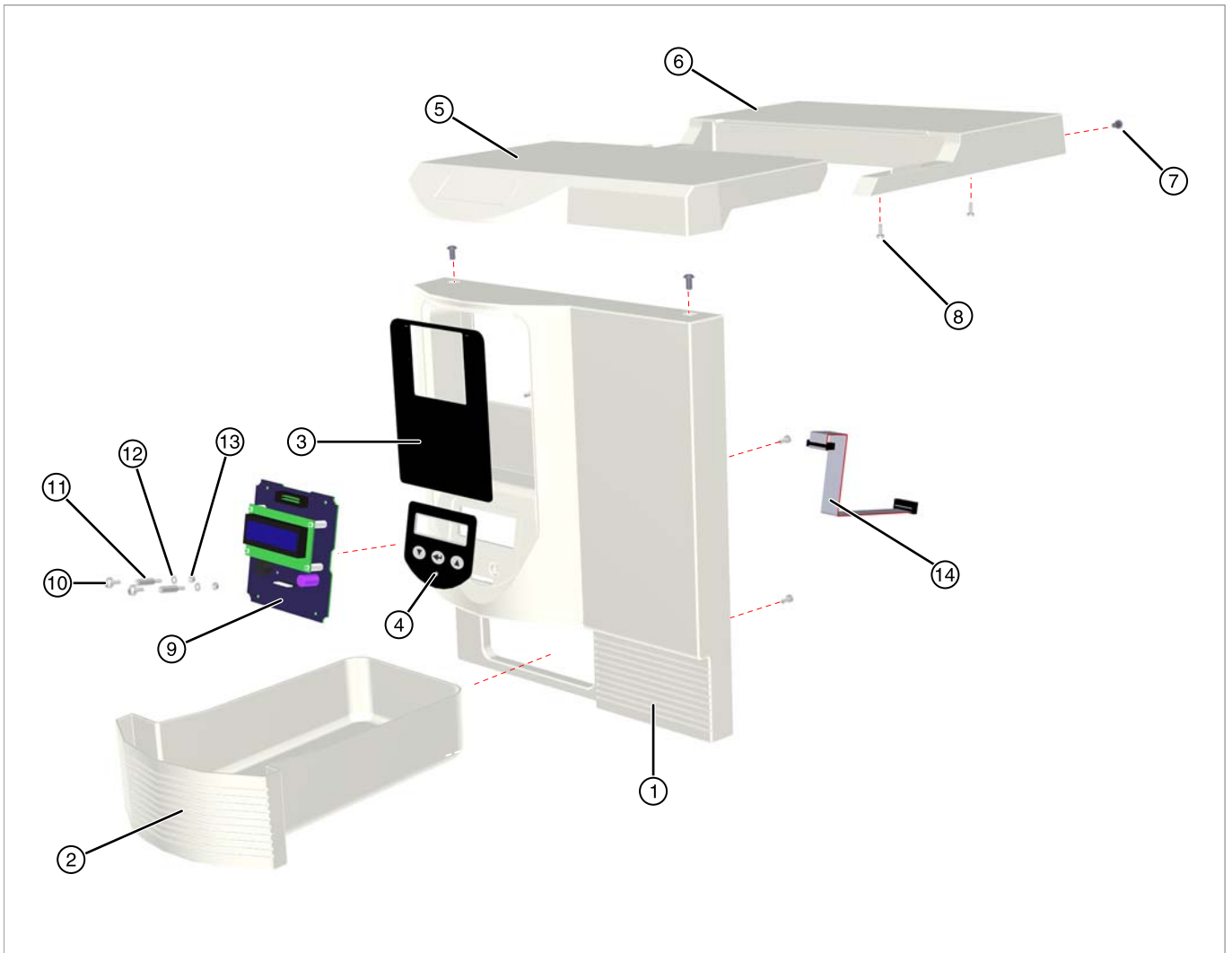
Note: The desiccant cartridge should be changed as and when required, however it is recommended that it is changed at least every 6, 4, and 2 months on the H2PEM-100 / H2PEM-165, H2PEM-260 and H2PEM-510 respectively.

Repair Kits



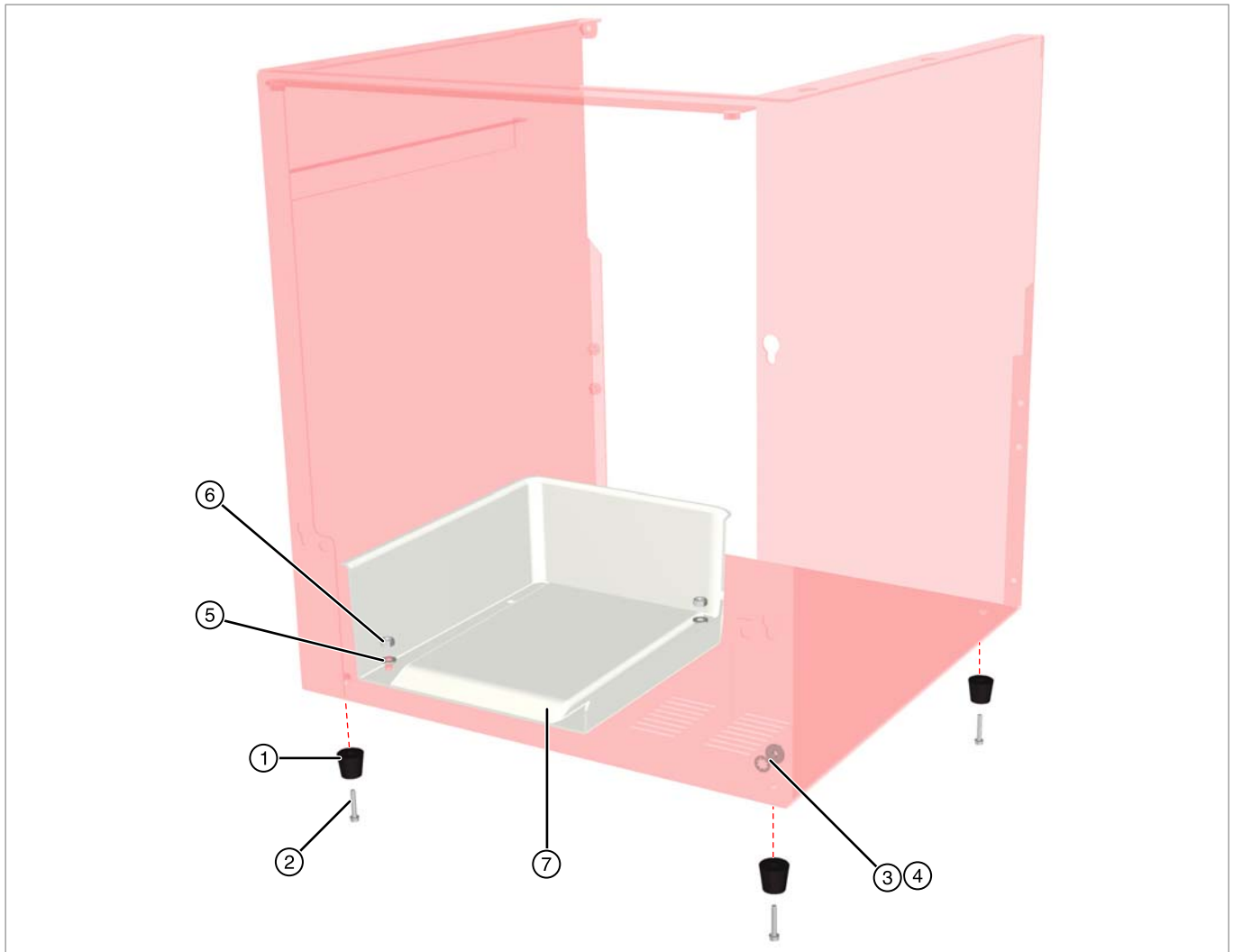
Ref.	Kit number	Description	Kit Qty	Comments
1	R454970402	Facia Assembly	1	Refer to "Facia Assembly" on page 5 for component breakdown.
2	R454970404	Case Assembly	1	Refer to "Case Assembly" on page 6 for component breakdown.
3	R454970206	Single cell assembly (H2PEM-100, H2PEM-165, H2PEM-260)	1	Refer to "Cell Assembly" on page 7 for component breakdown.
4	R454970208	Double cell assembly (H2PEM-510)	1	
5	S454970406	Chassis assembly	1	Refer to "Chassis Assembly" on page 8 for component breakdown.
6	R454970412	Water bottle assembly	1	Refer to "Water Bottle Assembly" on page 9 for component breakdown.
7	R454970410	Back panel assembly	1	Refer to "Back Panel Assembly" on page 11 for component breakdown.
8	R454970444	Metalwork set	1	Refer to "Metalwork Set" on page 12 for component breakdown.
9	R284971750	Generator badge	5	
10	R454970422	Livery set	5	
11	R276260520	5A Fuse (Anti Surge (T), 250V, 5 x 20mm HBC, Breaking Capacity 1500A @ 250V, IEC 60127, UL R/C)	5	
12	R284970470	Electrical supply cable USA (UL)	1	
13	R284970472	Electrical supply cable Europe	1	
14	R284970474	Electrical supply cable UK	1	
15	R278202098	Electrical supply cable Japanese PSE	1	
16	R278202099	Electrical supply cable India	1	

Facia Assembly



Ref.	Kit number	Description	Kit Qty	Comments
1	R284971738	Front facia	1	
2	R284971742	Accessory drawer	1	
3	R284971780	Parker display	1	
4	R284971760	Display membrane	1	
5	R284971746	Front cover	1	
6	R284971744	Top cover	1	
7	R276270520	M5 x 10mm Button head screw	20	
8	R284971782	No.4 x 10mm Thread forming screw	20	
9	R284971800	Display assembly	1	
10	R276261034	M3 x 10mm pozi pan head screw	20	
11	R276262198	M3 x 15mm PCB spacer	10	
12	R275110674	M3 Nut	40	
13	R273070903	M3 Nylon washer	40	
14	R284971520	Ribbon cable	1	

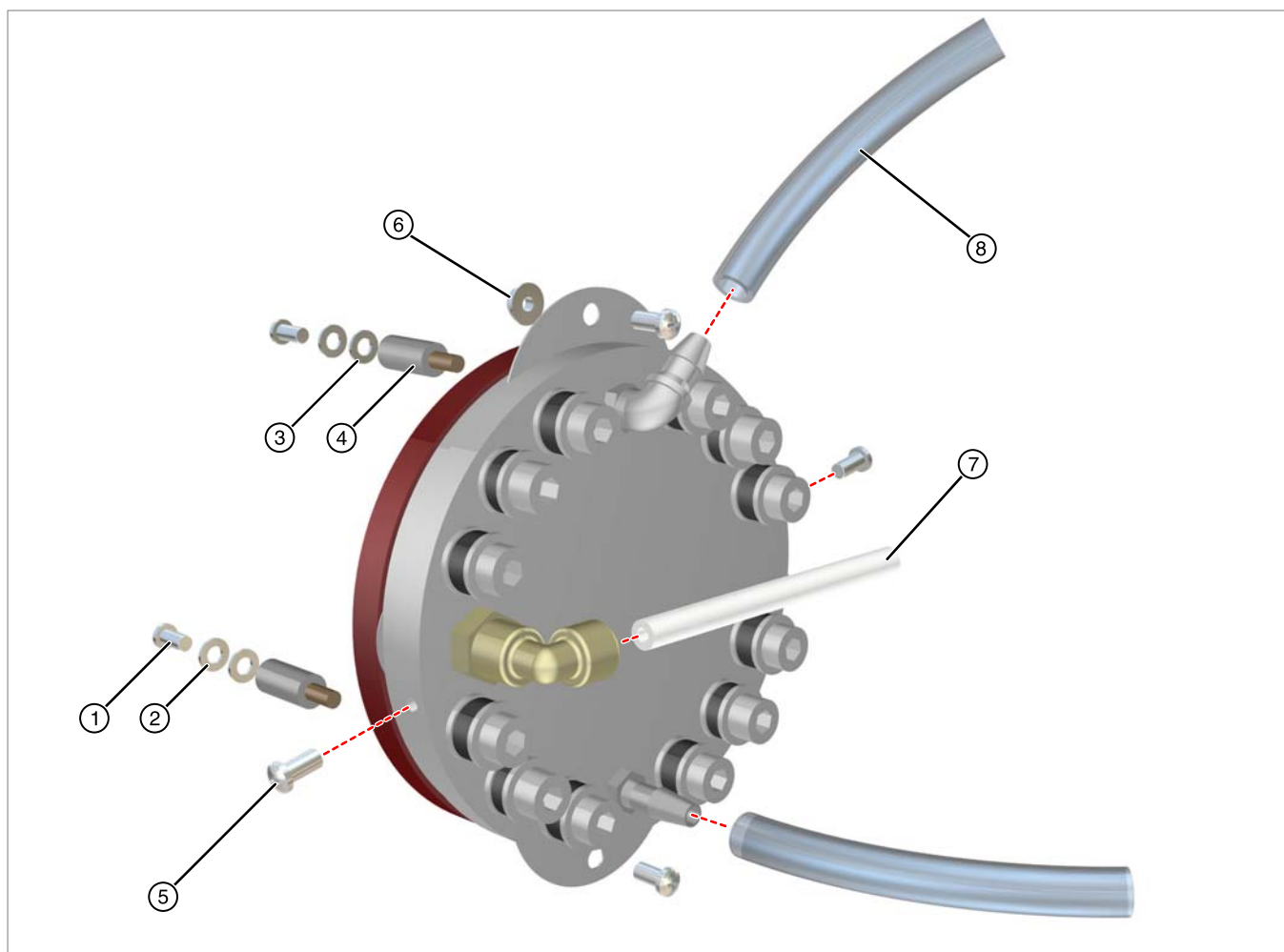
Case Assembly



Ref.	Kit number	Description	Kit Qty	Comments
1	R276261730	Mounting feet	4	
2	R276261038	M3x20 pozi pan head screws	20	
3	R276261052	M5 Internal tooth washer	40	
4	R284970594	M5 serrated flange nut	20	
5	R275110845	M5 washer	40	
6	R275110644	M5 nut	40	
7	R284971810	Drawer insert	1	

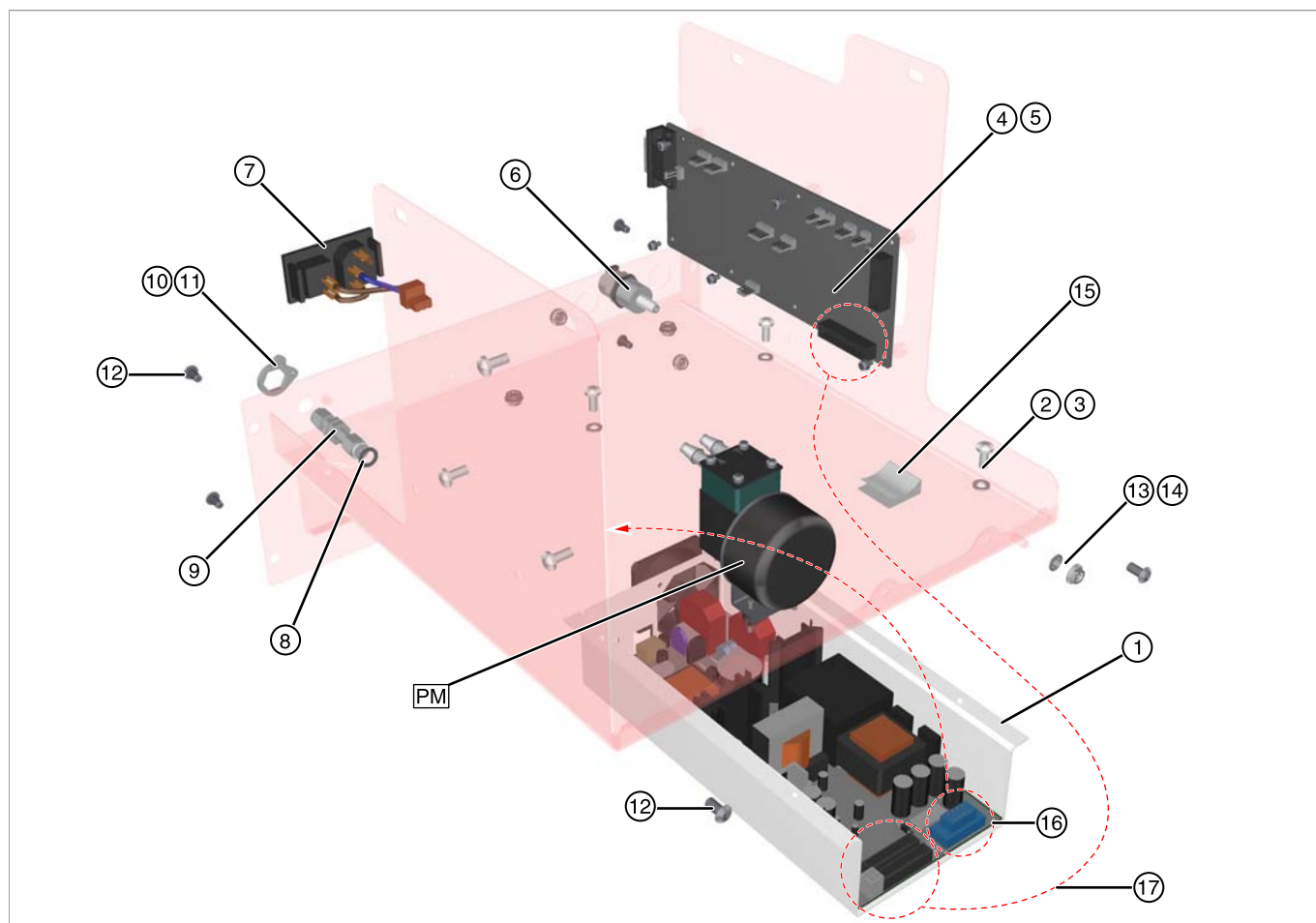
Note. The case is shown as a phantom image as it is not shipped with the complete case assembly. If you require the case please refer to "Metalwork Set" on page 13 for the require part number.

Cell Assembly



Ref.	Kit number	Description	Kit Qty	Comments
1	R276261050	M5x10mm pozi pan head screw	20	
2	R276261052	M5 internal tooth washer	40	
3	R276261053	M5 zinc plate washer	40	
4	R284971124	M5 male - female spacer	5	
5	R276261058	M5 x 8mm pozi pan head screw	20	
6	R284970594	M5 serrated flange nut	40	
7	R284970322	1/8" OD x 1/4" ID PTFE tube	2m	
8	R284970320	1/4" ID Tygon tube	2m	

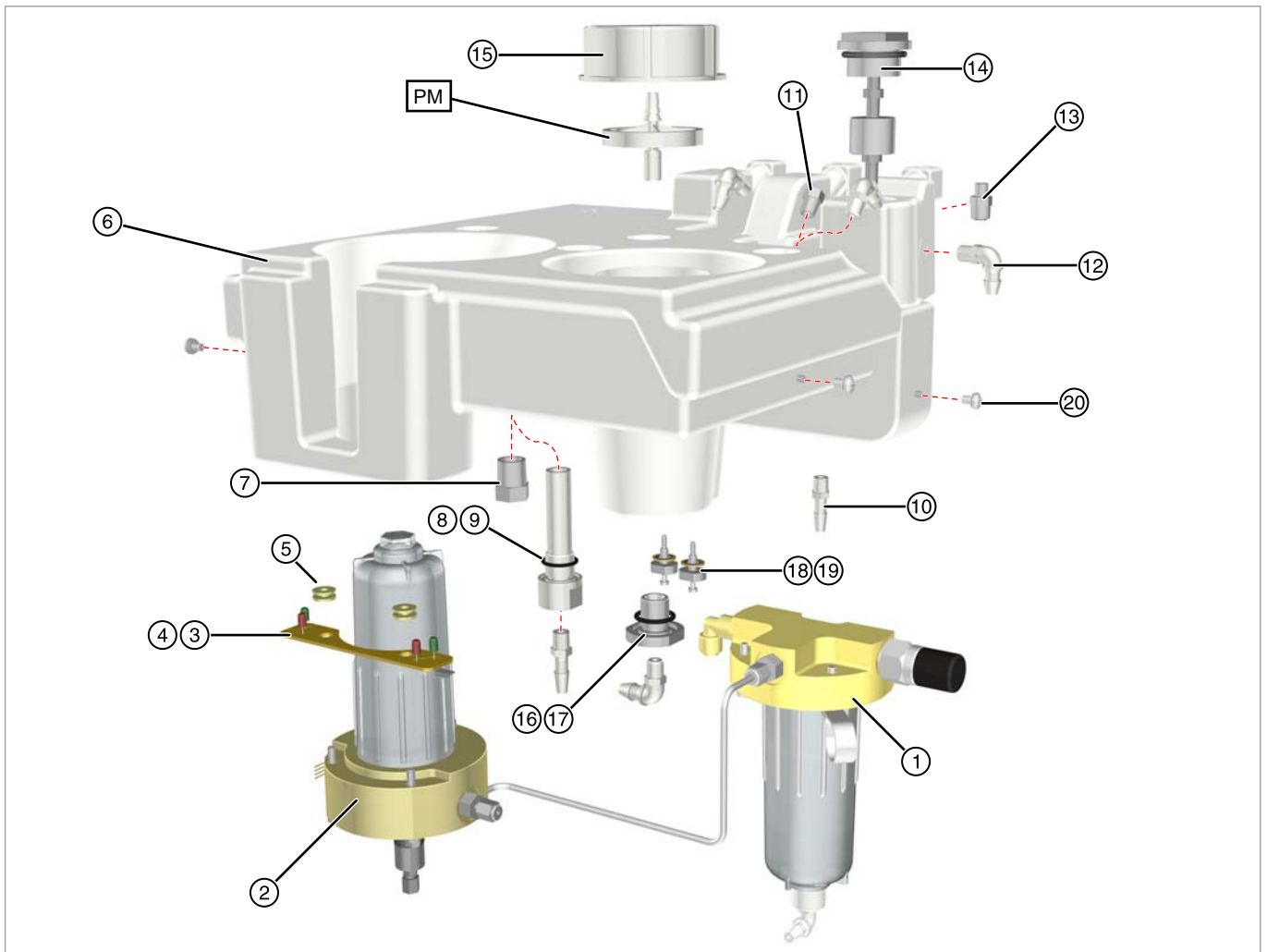
Chassis Assembly



Ref.	Kit number	Description	Kit Qty	Comments
1	R284971464	Power supply	1	Includes the fan
2	R276261054	M5 x 12mm Pozi pan head zinc plated screw	20	
3	R274172300	M5 Nylon washer	40	
4	S284971754	H2 Control Board	1	
5	R276261031	M3 x 6mm Pozi pan head zinc plated screw	20	
6	R284970420	Drain bulkhead	2	
7	R284971802	PSU Mains loom	1	
8	R276261076	M8 tooth washer	40	
9	R284971808	1-8 compression bulkhead	2	
10	R284970228	Bulkhead retainer	1	
11	R276261034	M3 x 10mm Pozi pan head zinc plated screw	20	
12	R276270520	M5 x 10mm Button head socket screw	20	
13	R276261052	M5 Internal tooth zinc plated washer	40	
14	R284970594	M5 Serrated flange nut	40	
15	R276270554	Ribbon cable clamp	5	
16	R284971482	H2 Cell loom	1	
17	R284971804	PSU Ribbon cable	1	
18	R284970320	1/4" ID Tygon tube	2m	Not illustrated.

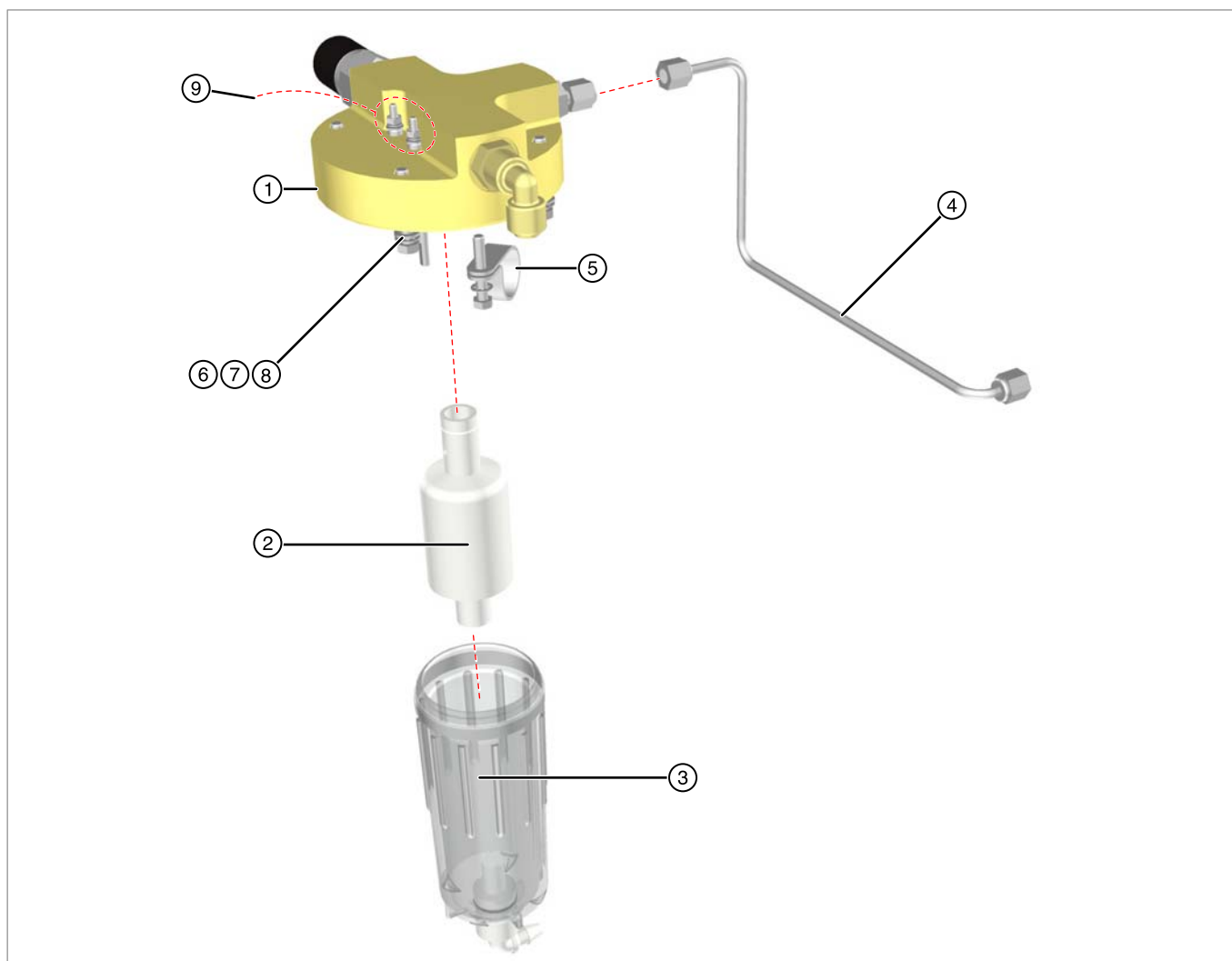
Note. The chassis is shown as a phantom image as it is not shipped with the complete chassis assembly. If you require the chassis please refer to "Metalwork Set" on page 13 for the require part number.

Water Bottle Assembly



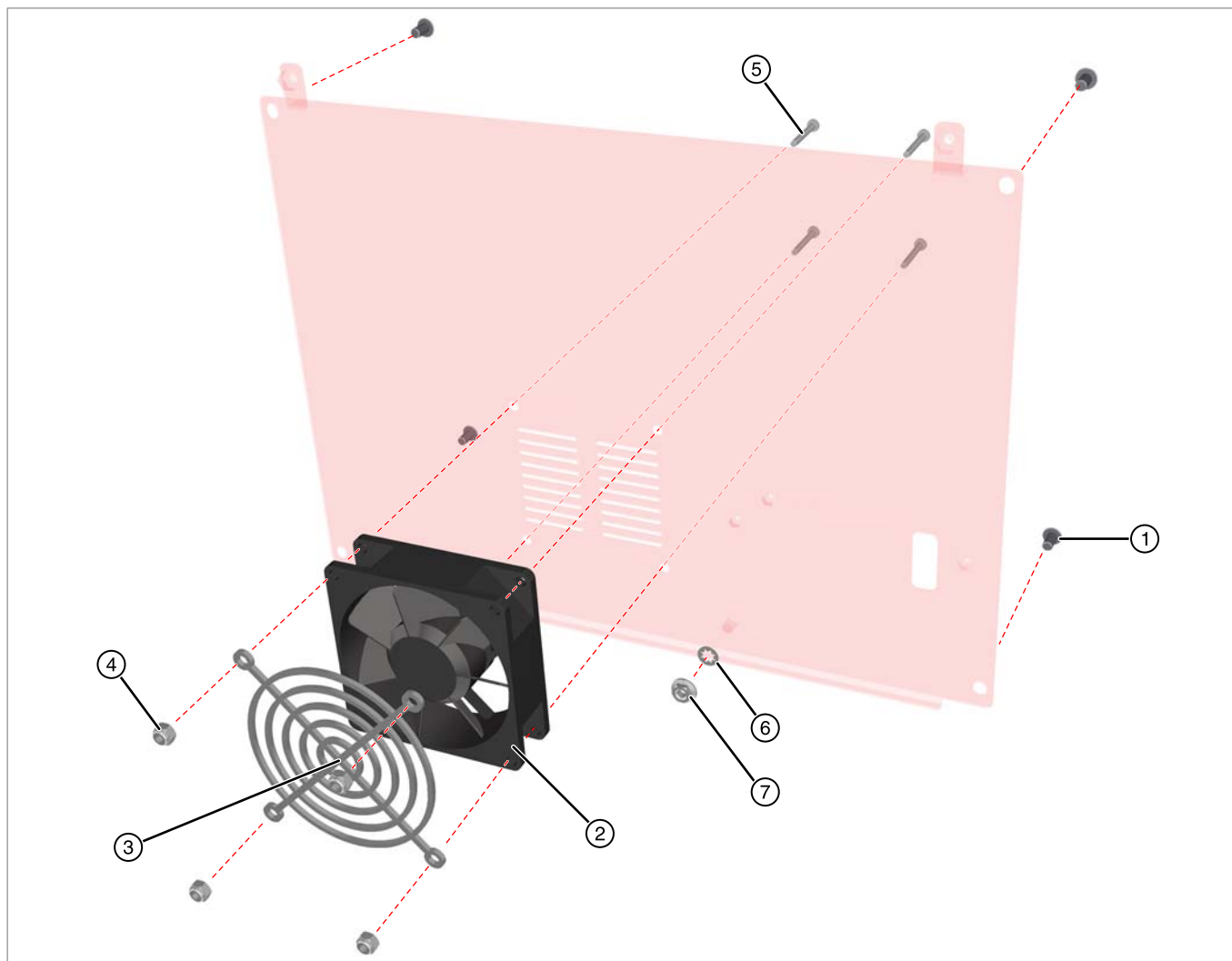
Ref.	Kit number	Description	Kit Qty	Comments
1	S454970414	Separation chamber assembly	1	Refer to "Separation Chamber Assembly" on page 10 for component breakdown.
2	S454970416	Dryer manifold assembly	1	
3	R284971752	LED board	1	
4	R284971806	LED board loom	1	Not illustrated above.
5	R276262166	M5 Nylon washer	40	
6	R284971748	Water bottle	1	
7	R284971909	3/8" BSPT plug	2	
8	R284971901	2mm section x 17mm ID O-ring	10	
9	R284971918	Overflow pipe	1	
10	R284970200	1/8" NPT to 1/4" ID straight adaptor	2	
11	R284971796	1/8" NPT plug	2	
12	R284970220	1/8" NPT to 1/8" hose barbed elbow	2	
13	R284970280	1/8" BSP straight push in adaptor	2	
14	R284971774	Float switch	1	
15	R284971076	Water bottle filling cap	1	
16	R284971828	Viton o-ring	10	
17	R284971772	3/8" BSPP - 1/8" NPT adaptor	1	
18	R454972319	Conductivity probe assembly	1	
19	R284971778	Conductivity probe loom	1	Not illustrated above.
20	R276261058	M5 x 8mm pozi pan head screw	20	
21	R284970320	1/4" ID tygon tube	2m	

Separation Chamber Assembly



Ref.	Kit number	Description	Kit Qty	Comments
1	S454972143	Manifold assembly	1	This assembly includes the fixings (item numbers ⑥, ⑦ and ⑧).
2	R454972154	H2 Float Assembly	1	
3	R454972317	H2 Float chamber bowl assembly	1	
4	R454972152	Nafion tube assembly	1	
5	R274971794	22mm P-Clip	5	
6	R275111701	M5 x 30mm hex head screw	20	
7	R276261052	M5 Internal tooth washer	40	
8	R275110845	M5 Washer	40	
9	R284971798	Float conductivity level loom	1	

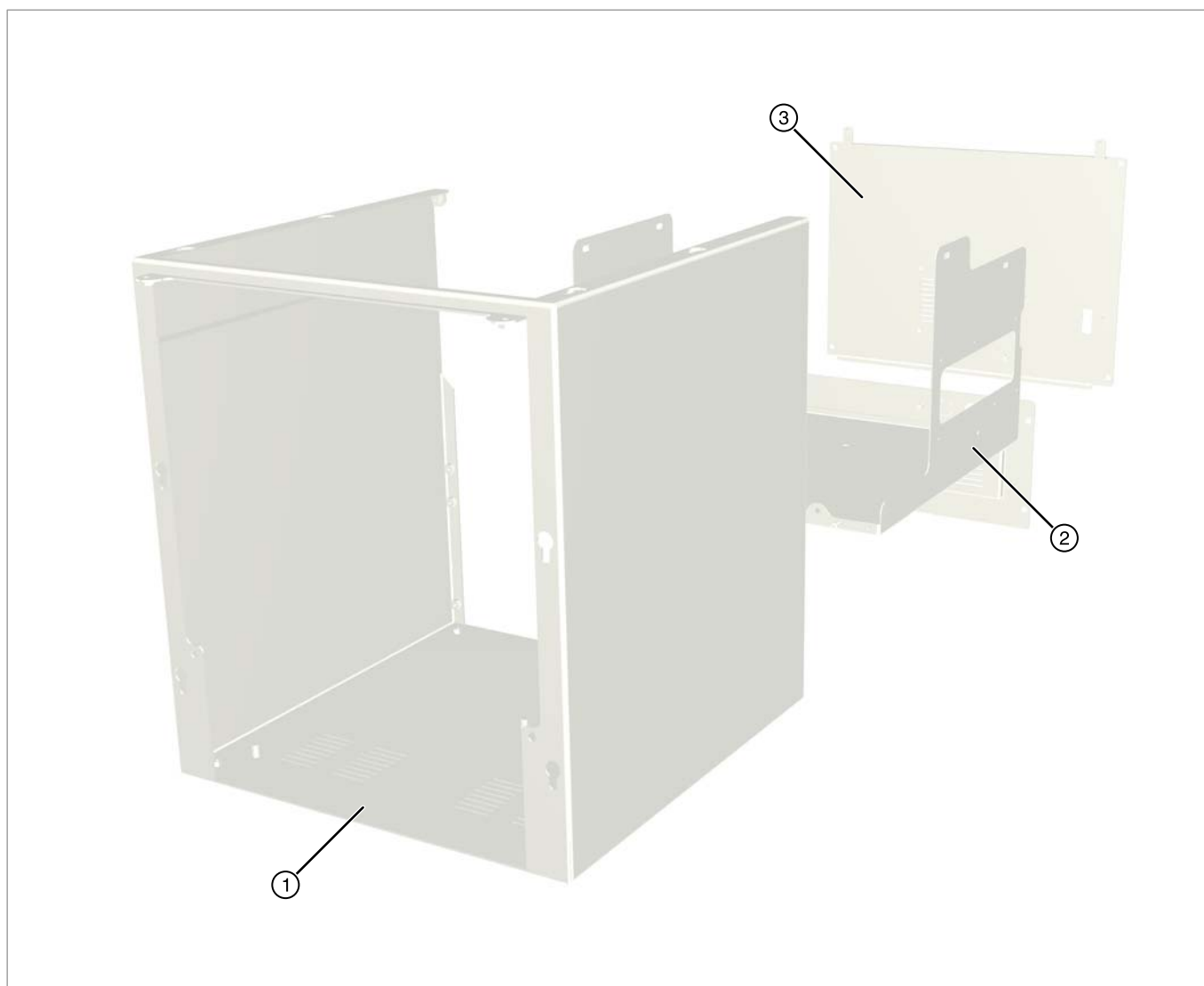
Back Panel Assembly



Ref.	Kit number	Description	Kit Qty	Comments
1	R276270520	M5 x 10mm butt head socket head screw	20	
2	S284971496	12v Fan	1	
3	R284970412	80mm fan guard	2	
4	R275110643	M4 nylok nut	40	
5	R284971426	M4 x 35mm pozi pan head screw	20	
6	R276261052	M5 internal tooth washer	40	
7	R284970594	M5 serrated flange nut	40	

Note. The back panel is shown as a phantom image as it is not shipped with the complete back panel assembly. If you require the back panel please refer to "Metalwork Set" on page 13 for the require part number.

Metalwork Set



Ref.	Kit number	Description	Kit Qty	Comments
1	R284971762	External case	1	
2	R284971764	Internal case	1	
3	R284971768	Back panel	1	

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