

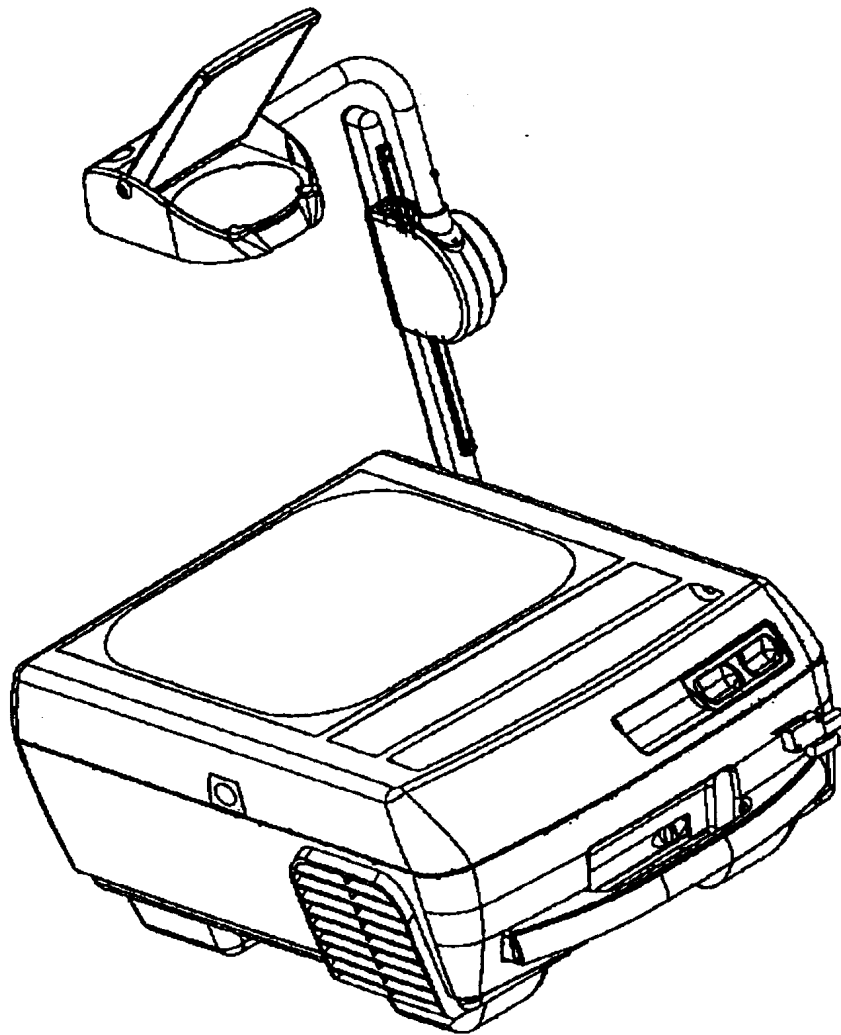
# Touchboards

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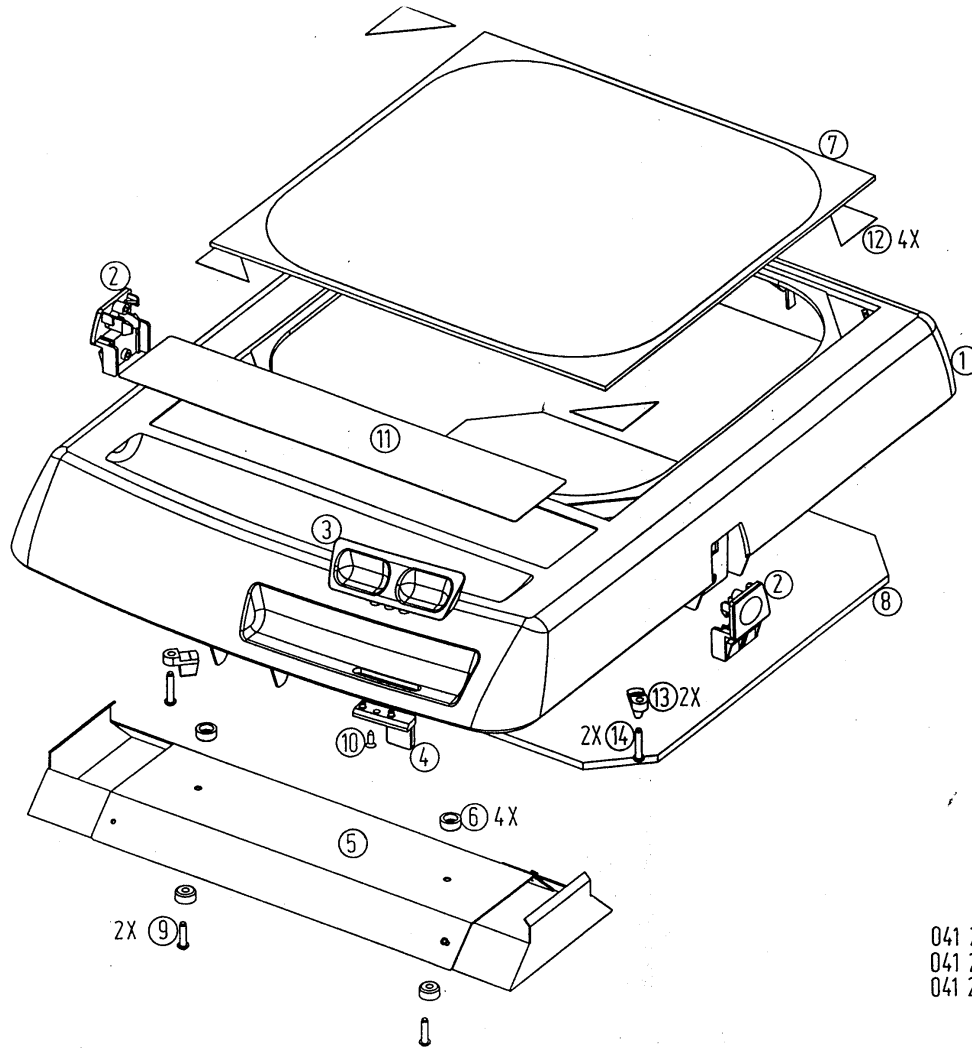
## CONCEPT 2200 SERIES

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OVERHEAD PROJECTORS SERVICE MANUAL



**Figure 1**  
**Concept top cover assembly**



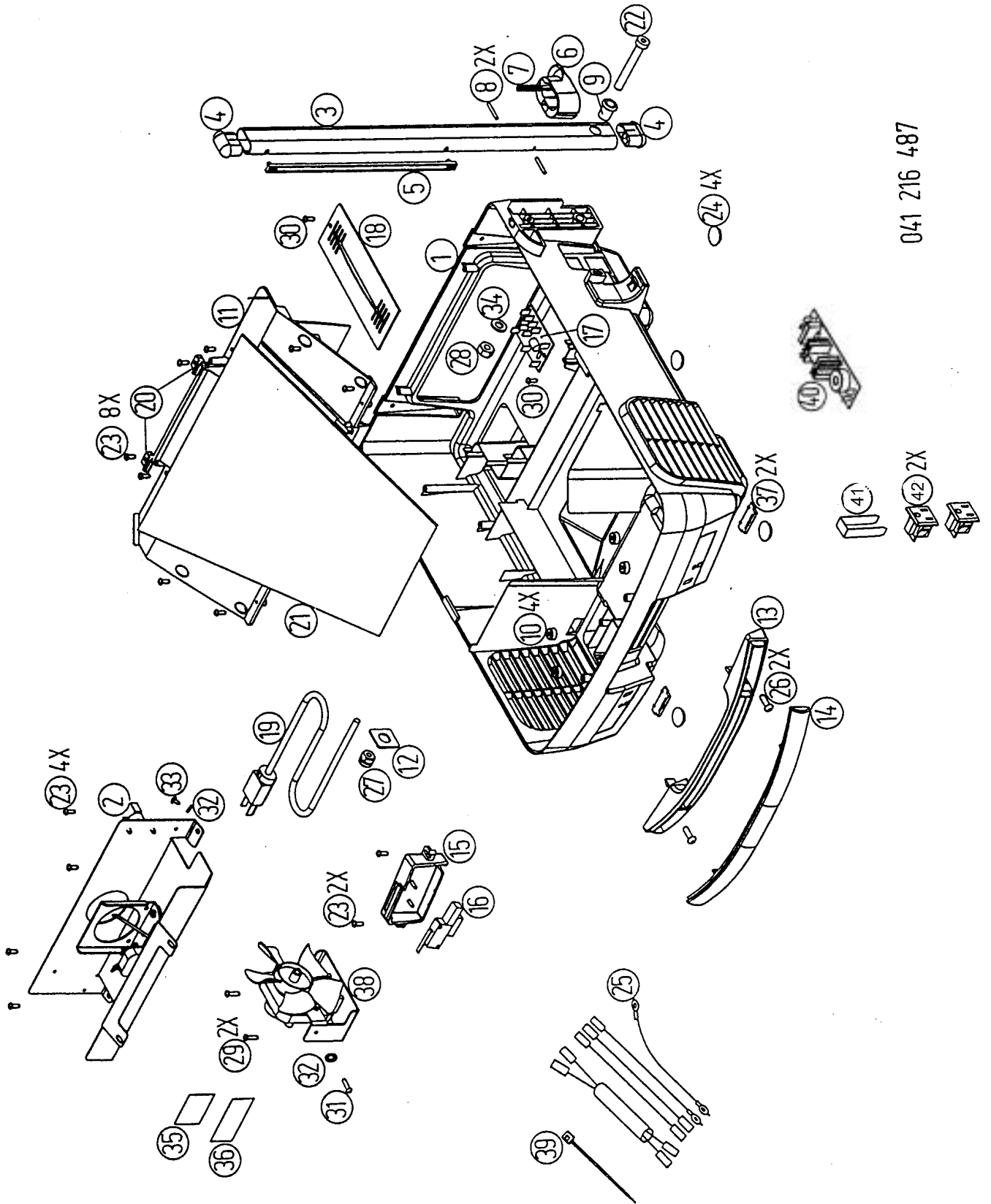
041 216 508  
041 216 537  
041 216 469

**Product: 041 216 469**

<u>Item</u>	<u>Part number</u>	<u>Identification</u>	<u>Quantity</u>
1	041 116 735	Cover	1
2	041 116 771	Latch	2
3	041 116 889	Slide knob printed	1
4	041 116 770	Actuator	1
5	041 216 519	Cover Heat shield Assembly	1
6	041 116 779	Insulating washer	4
7	041 116 053	Stage glass plate	1
8	041 116 067	Fresnel lens f=305-430mm,10"	1
	041 119 066*	Fresnel lens f=300-390mm,10"	1
9	091 041 005	Screw PT KA 35x14	2
10	091 040 005	Screw PT KA 30x8	1
11	041 116 840	Cover label	1
12	755 705 102	Double sided tape	0
13	041 116 162	Fresnel lens fastener	2
14	091 022 027	Screw PT 35x18	2

\* Models 2234/64/94 only (Triple element lens)

**Figure 2**  
**Concept base assembly**



041 216 487

## Figure 2 Concept base assembly

**Product: 041 216 487**

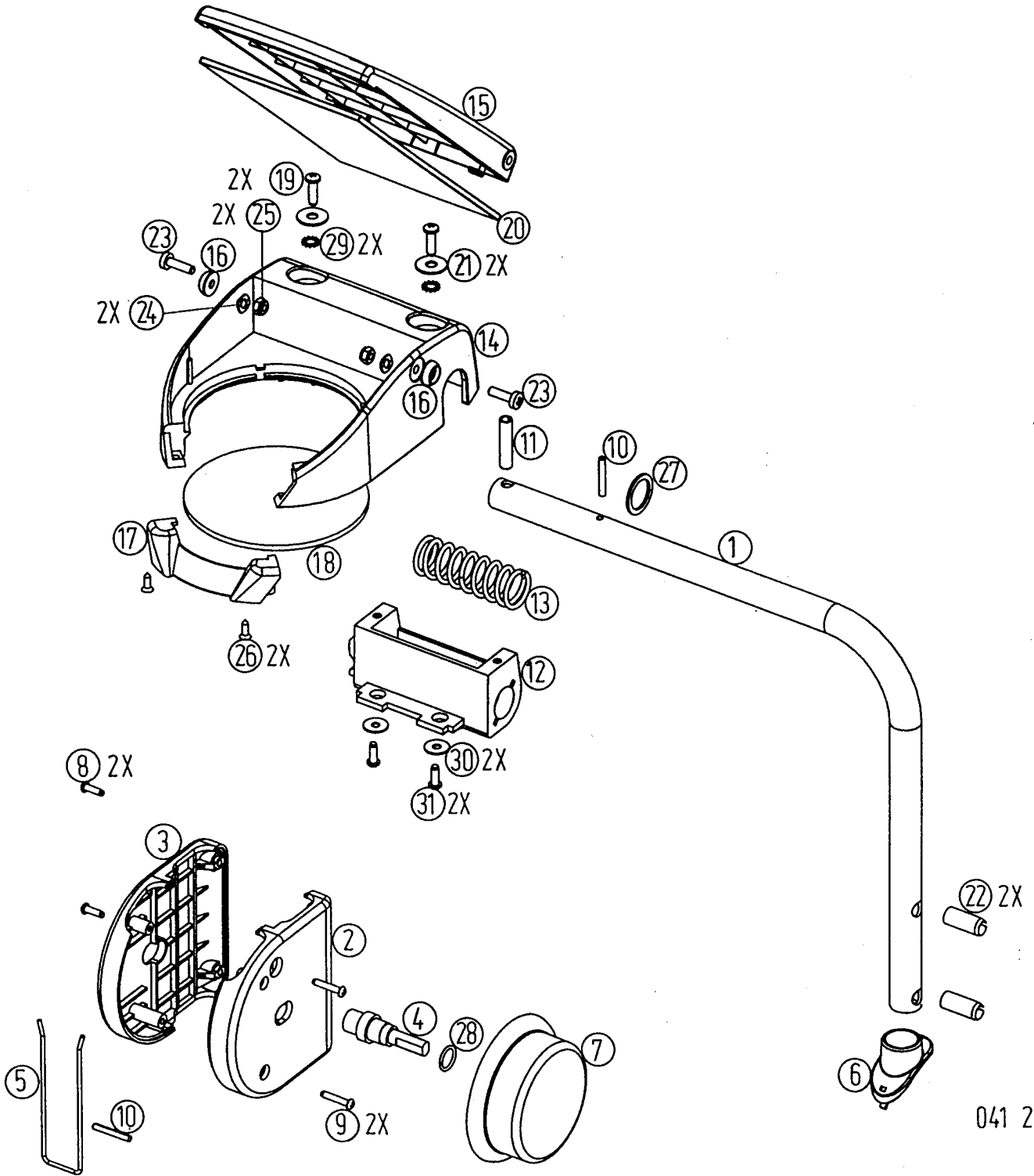
<u>Item</u>	<u>Part number</u>	<u>Identification</u>	<u>Quantity</u>
1	041 116 736	Housing	1
2	041 216 467	Lamp housing basic	1
3	041 116 890	Foldable post printed	1
4	041 116 859	Post cap oval	2
5	041 116 861	Post rack	1
6	041 116 894	Post lock printed	1
7	041 116 808	Post lock spring	1
8	091 034 005	Grooved pin 3x20	2
9	041 116 846	Post Axel	1
10	041 116 779	Insulating Washer	4
11	041 116 737	Housing mirror holder	1
12	041 116 778	Strain relief plate	1
13	041 116 776	Handle	1
14	041 116 774	Handle cover	1
15	041 116 773	Microswitch cover	1
16	755 409 351	Micro switch Honeywell	1
17	041 216 450*	PCB Lite	1
	041 116 451@	PCB Lite	1
	041 116 452+	PCB Lite 230v	1
18	041 116 772	Cover PCB	1
19	755 409 058	Power cord	1
	041 113 600+	Power cord 230v(Europe)	1
20	041 116 768	Mirror retainer	2
21	041 116 054	Projection mirror	1
22	091 058 001	Screw M8x60	1
23	091 022 003	Screw PT KA*35x10	14
24	755 409 097	Bumpon	4
25	V41205177001	Wiring diagram	1
26	091 041 012	Screw PT KA 50x16	2
27	755 429 007	Strain Relief	1
28	091 021 985	Nut M8	1
29	091 041 005	Screw PT KA 35x14	2
30	091 041 003	Screw PT KA 35x8	2
31	091 037 005	Screw M4x10 DIN 75000	1
32	091 005 804	Washer A4.3	2
33	091 016 433	Screw A 3.5x6.5	1
34	091 005 159	Washer *8,4	1
35	041 116 083	Service label	1
36	041 116 627	Lamp change label	1
37	041 116 742	Housing bottom cap	2
38	041 216 499	Fan S/A	1
39	631 001 239	Tie wrap	2
40	755 419 194+	Power supply 120/82v 240	1
41	041 116 944@	Socket retainer	1
42	755 409 044@	Socket 3-Pole	2

\* Models 2200/02/03/04/05/09/82/83/84/85/89 only

@ Models 2224/64 only

+ Models 2224/44/73/74/94 only (230v)

**Figure 3**  
Concept open head assembly, single element lens



041 216 468

## Figure 3 Concept Open head assembly, single element lens

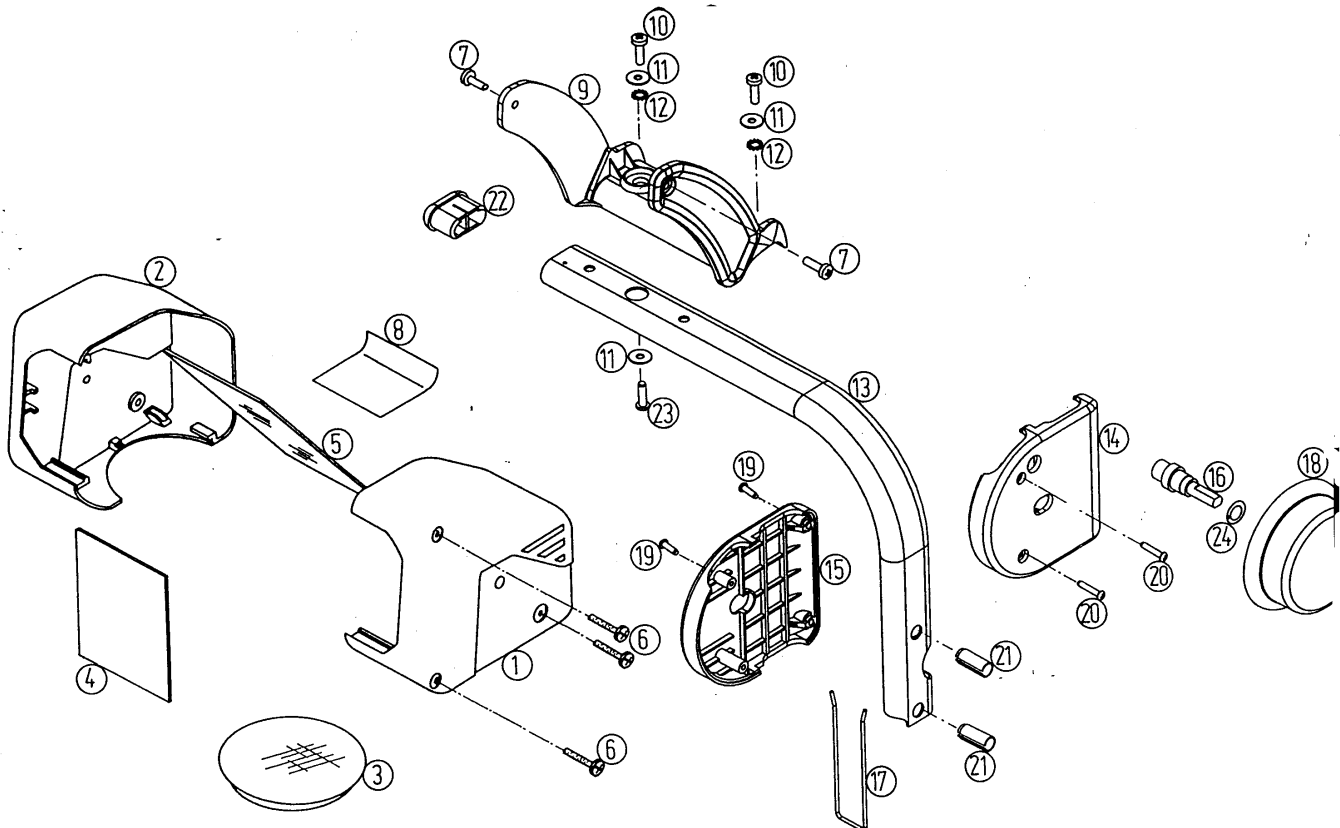
Product: 041 216 468

<u>Item</u>	<u>Part number</u>	<u>Identification</u>	<u>Quantity</u>
1	041 116 829	Upper Arm	1
2	041 116 838	Left holder	1
3	041 116 839	Right holder	1
4	041 107 159	Knob pinion	1
5	041 107 248	Post rack spring	1
6	041 116 784	Post cap	1
7	041 116 837	Focus knob	1
8	091 040 002	Screw PT KA 30x10 BN 13576	2
9	091 041 002	Screw PT KA*30x18	2
10	091 034 005	Grooved pin 3x20	1
11	091 034 004	Grooved pin 6x26	1
12	041 116 783	Foldable head spring holder	1
13	041 116 832	Foldable head spring	1
14	041 116 893	Foldable head printed	1
15	041 116 782	Mirror housing	1
16	041 116 807	Foldable head cap	2
17	041 116 725	Lens fastener	1
18	041 100 086	Objective lens f295	1
19	091 041 009	Screw PT KA 40x14	2
20	041 116 834	Foldable head mirror	1
21	091 009 073	Flat washer M5	2
22	091 047 001	Grooved pin *8x20	2
23	091 014 064	Screw M 4x14	2
24	091 012 596	Washer B*4	2
25	091 032 101	Nut M4	2
26	091 044 001	Screw ST *2,9x9,5, form H	2
27	041 116 845	Spring washer	1
28	041 107 257	Knob rim	1
29	091 009 973	Tooth washer M5	2
30	091 021 914	Washer 4	2
31	091 022 003	Screw PT KA*35x10	2

## Figure 4 Closed Head Assembly

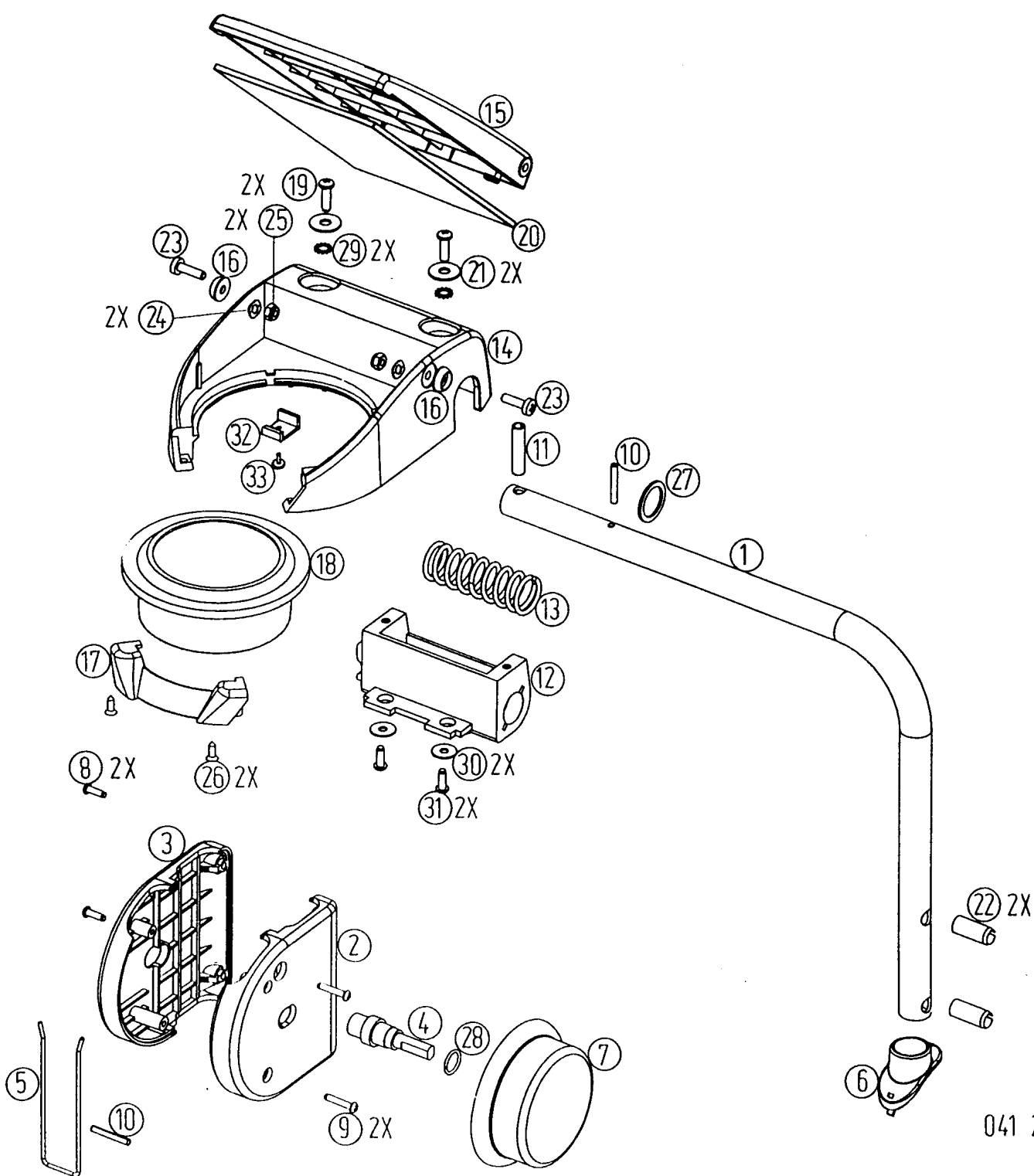
**Product: 041 216 535**

<u>Item</u>	<u>Part number</u>	<u>Identification</u>	<u>Quantity</u>
1	041 116 003	Projection head, left	1
2	041 116 004	Projection head, right	1
3	041 100 086	Objective lens	1
4	041 116 084	Closed head glass plate	1
5	041 116 056	Projection mirror, closed head	1
6	091 022 002	Screw PT KA*30x25	3
7	091 022 003	Screw PT KA*35x10	2
8	755 705 114	Self-adhesive AL-tape	0
9	041 116 882	Bracket, closed head	1
10	091 014 064	Screw M 4x14	2
11	091 021 914	Washer 4	3
12	091 009 973	Toothed washer	M5 2
13	041 216 505	Closed head arm	1
14	041 116 838	Left holder	1
15	041 116 839	Right holder	1
16	041 107 159	Knob pinion	1
17	041 107 248	Post rack spring	1
18	041 116 837	Focus knob	1
19	091 040 002	Screw PT KA 30x10 BN 13576	2
20	091 041 006	Screw PT KA 30x16	2
21	091 047 001	Grooved pin *8x20	2
22	041 116 859	Post cap, oval	1
23	091 040 001	Screw PT KA*40x14	1
24	041 107 257	Knob rim	1



041 216 535

Figure 5  
Arm with folding head 3 element lens



041 216 507

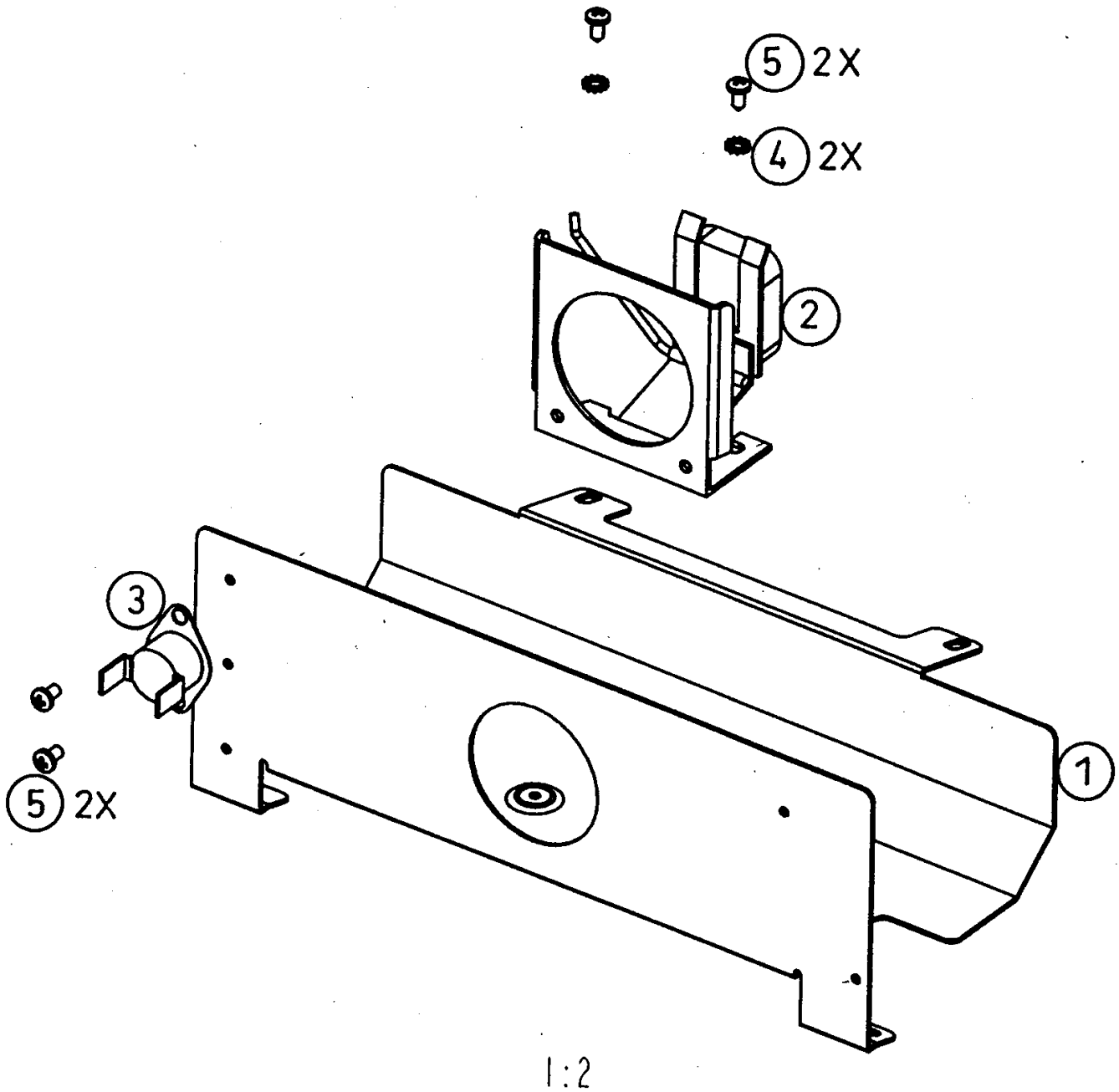
## Figure 5

### Arm with folding head 3 element lens

**Product: 041 216 507**

<u>Item</u>	<u>Part number</u>	<u>Identification</u>	<u>Quantity</u>
1	041 116 829	Upper arm	1
2	041 116 838	Left holder	1
3	041 116 839	Right holder	1
4	041 107 159	Knob pinion	1
5	041 107 248	Post rack spring	1
6	041 116 784	Post cap	1
7	041 116 837	Focus knob	1
8	091 040 002	Screw PT KA 30x10 BN 13576	2
9	091 041 006	Screw PT KA 30x16	2
10	091 034 005	Grooved pin 3x20	2
11	091 034 004	Grooved pin 6x26	1
12	041 116 783	Foldable head spring holder	1
13	041 116 832	Foldable head spring	1
14	041 138 367	Foldable head printed	1
15	041 116 782	Mirror housing	1
16	041 116 807	Foldable head cap	2
17	041 116 725	Lens fastener	1
18	041 222 206	Objective lens f=315 heat protected	1
19	091 041 009	Screw PT KA 40x14	2
20	041 116 834	Foldable head mirror	1
21	091 009 073	Flat washer M5	2
22	091 047 001	Grooved pin *8x20	2
23	091 014 064	Screw M 4x14	2
24	091 012 596	Washer B*4	2
25	091 032 101	Nut M4	2
26	091 044 001	Screw ST *2, 9x9, 5, form H	2
27	041 116 845	Spring washer	1
28	041 107 257	Knob rim	1
29	091 009 973	Toothed washer M5	2
30	091 021 914	Washer 4	2
31	091 022 003	Screw PT KA*35x10	2
32	041 138 398	Lens holder	1
33	091 021 423	Screw M 3x8	1

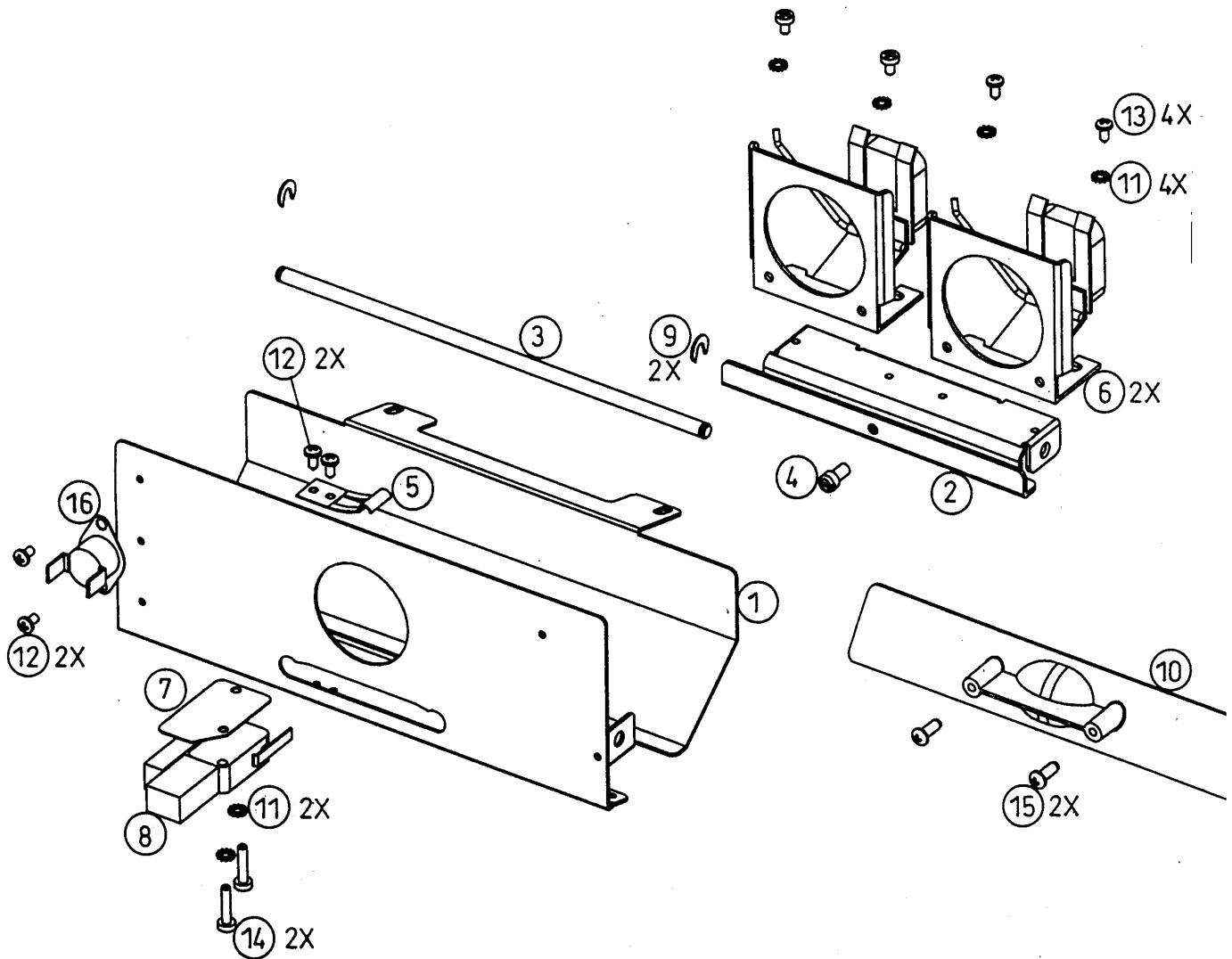
Figure 6  
Lamp housing basic



Product: 041 216 467

<u>Item</u>	<u>Part number</u>	<u>Identification</u>	<u>Quantity</u>
1	041 116 785	Lamp housing basic	1
2	755 409 625	Lamp socket QHV-1 L400	1
3	755 409 321	Thermoswitch 90 C	1
4	091 005 803	Washer A 3,2	2
5	091 015 212	Screw 2,9x6,5	4

**Figure 7**  
**Lamp housing LC**



041 216 466

**Product: 041 216 466**

<u>Item</u>	<u>Part number</u>	<u>Identification</u>	<u>Quantity</u>
1	041 116 786	Lamp housing LC	1
2	041 116 787	Lamp holder bracket	1
3	041 116 791	LC axle	1
4	041 116 790	Guide screw	1
5	041 138 331	LC spring	1
6	755 409 625	Lamp socket QHV-1 L400	2
7	041 100 105	Isolating plate	1
8	755 303 631	Microswitch, Cherry D45M-V3MD 125C	1
9	091 009 134	Retaining ring 4	2
10	041 116 867	Lamp changer lever printed	1
11	091 005 803	Washer A 3,2	6
12	091 015 212	Screw 2,9x6,5	4
13	091 037 004	Screw M3x5	4
14	091 021 844	Screw M3x14	2
15	091 022 003	Screw PT KA*35x10	2
16	755 409 321	Thermoswitch 90C	1

## CONCEPT MODELS COMPARISON CHART

MODEL	HEAD	HANDLE	LAMP CHANGER	3 ELEMENT LENS	POWER	COVER	AUX.OUTLET
2200	OPEN				120V		
2202	CLOSED				120V		
2203	OPEN	Y			120V	SOFT	
2204	OPEN	Y	Y		120V	SOFT	
2205	OPEN	Y			120V		
2206	OPEN	Y	Y	Y	120 V	HARD	
2209	CLOSED	Y	Y		120V		
2211	OPEN				120V		
2223	OPEN	Y			230V	SOFT	
2224	OPEN	Y	Y	Y	230V	SOFT	
2234	OPEN	Y	Y	Y	120V	SOFT	Y
2264	OPEN	Y	Y	Y	120V	SOFT	Y
2244	OPEN	Y	Y	Y	230V	SOFT	
2282	CLOSED				120V		
2283	OPEN	Y			120V	SOFT	
2285	OPEN	Y	Y		120V		
2289	CLOSED	Y			120V		
2273	OPEN	Y			230V	SOFT	
2274	OPEN	Y	Y		230V	SOFT	
2294	OPEN	Y	Y	Y	230V	SOFT	

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