BRAUN

Braun Service
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Service Documentation **Market Release 4/97**

Braun CombiMax	**K 650 3205**

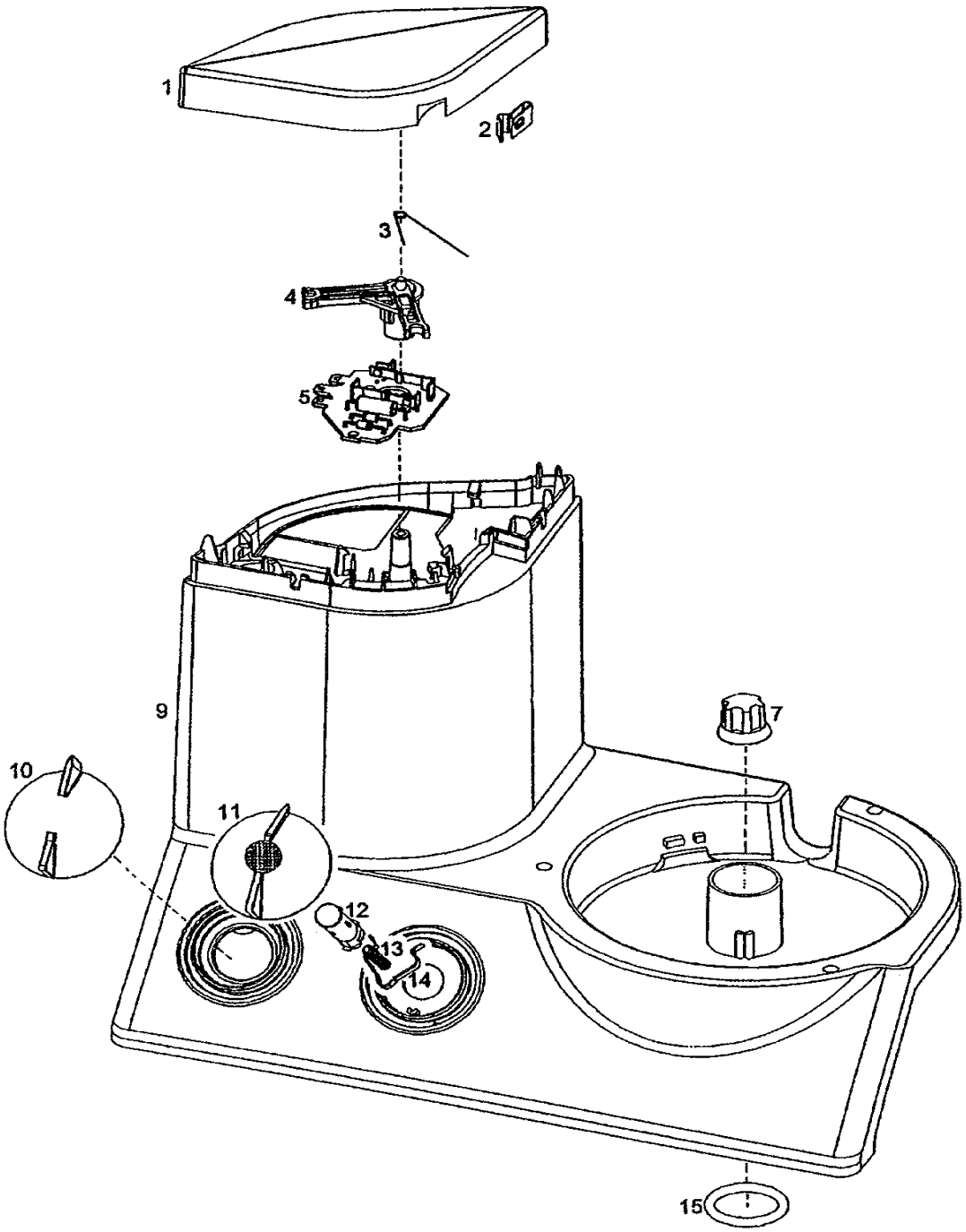
BINC Rev: 4/97

Service Documentation

Exploded Drawing

BAG Rev: 11/96

3205



BINC Rev: 4/97

Service Documentation

Spare Parts List

BAG Rev: 1/97

3205

Pos. No.	Part Description	Part Number
1	Cover	3205627
2	Return spring	3205029
3	Leg spring	3202014
4	Lever	3205017
5	Switching PCB	3205641
7	Coupling	3205053
9	Housing K 650	3205636
10	Setting knob	3205629
11	Switch knob	3202628
12	Button	3202012
13	Pressure spring	3210004
14	Spring	3205016
15	O-ring	3205055

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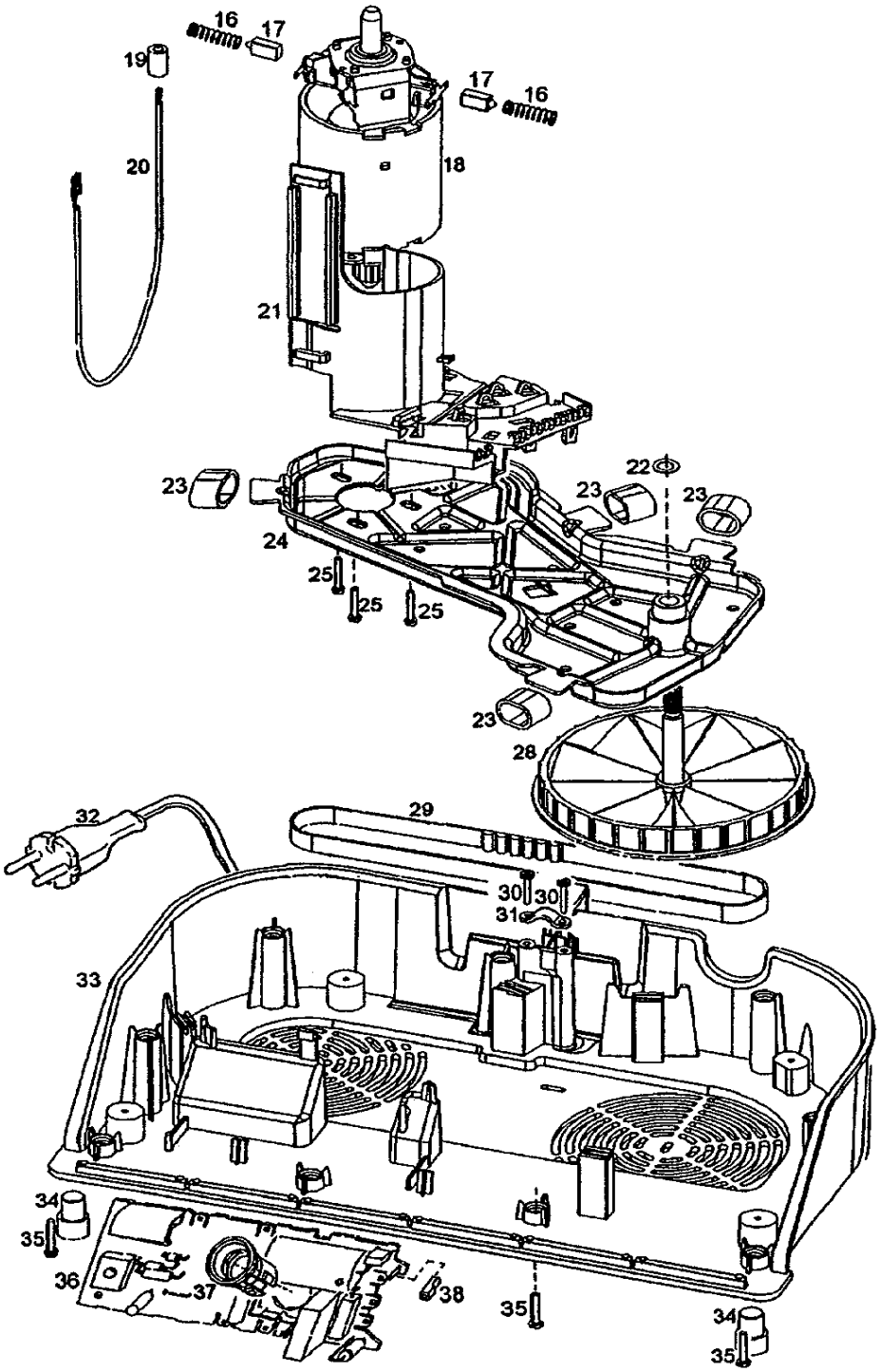
BAG Rev: 11/96

3205



Pos. No.	Part Description	Part Number
16	Spring	4227016
17	Carbon brush	4227034
18	Motor cpl.	3205634
19	Ferrite tube	3205155
20	Wiring, black	3205935
20	Wiring, brown	3205936
20	Wiring, orange	3205937
20	Wiring, red	3205938
20	Wiring, blue	3205939
21	Cable support	3205002
22	Washer	0111410
23	Damper	3205038
24	Supporting frame	3205625
25	Screw	0033423
28	Gear wheel with shaft	3202626
29	Toothed belt	3205030
30	Screw	0028012
31	Cable clamp	4206149
32	Mains lead	3205879
33	Base	3205621
34	Rubber foot	3205025
35	Screw	0033419
36	Switch-PCB	3205642
37	Switch cam	3205078
38	Insulating tube	0818182

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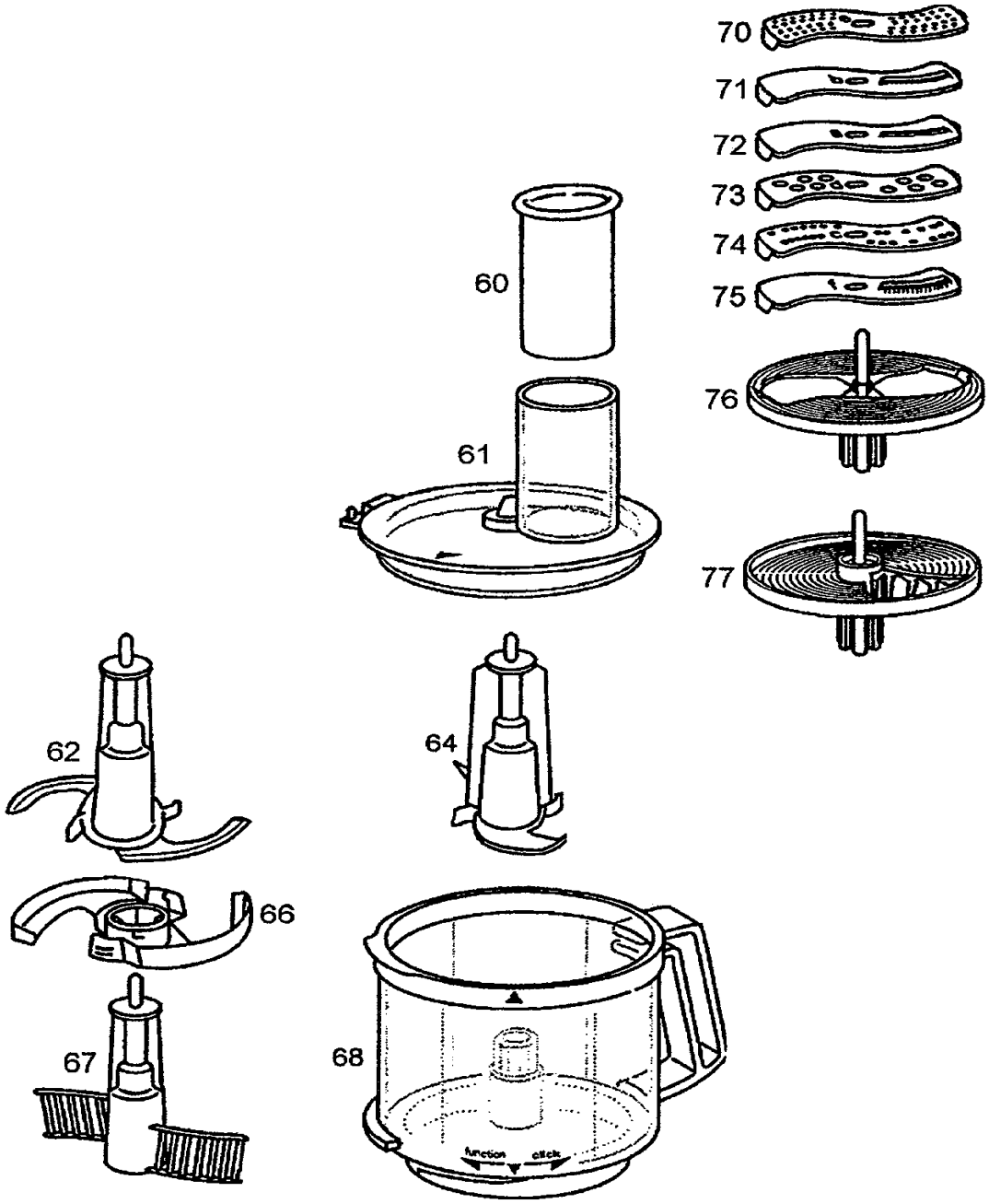
3205



Pos. No.	Part Description	Part Number
60	Pusher	3200032
61	Lid	3200640
62	Blade	3200636
64	Kneading hook	3200635
66	Safety cover	4293067
67	Whipping attachment	3200645
68	Bowl	3200630
70	Grating insert	3200151
71	Coarse slicing insert	3200153
72	Fine slicing insert	3200152
73	Coarse shredding insert	3200155
74	Fine shredding insert	3200154
75	Julienne insert	3200158
76	Insert carrier	3200633
77	French fries system	3200634

Technical Data

Nominal voltage/frequency:	120V 60 Hz
Driving motor:	DC motor B2-DC
Nominal power:	approx. 600 W (load dependent)
No-load power:	approx. 100 - 140 Watts
No-load speed position 2:	approx. 240 - 300 r.p.m. at the bowl coupling
No-load speed position 14:	approx. 1850 - 2200 r.p.m. at the bowl coupling
Overload protection:	electronic controls, see use instructions
Mixing arm rotation:	approx. 14 - 130 r.p.m. mixing arm into the bowl approx. 144 - 1320 r.p.m. whisk into the mixing arm
Length of mains lead:	approx. 1.30 m

Note about the screws

The special screws (25/35), can only be removed with a screw driver furnished with a special blade insert. These special blade inserts for the screwdriver can be ordered from the parts department.

Because of approval-board requirements and reasons of safety, only the special screws (35) into the base plate must be used to avoid tampering by un-authorized persons.

Note about the PCB

Attention, charging capacitor on the PCB (36) is charged, use a resistor of 10-50 Ohms to discharge.

Note about the wiring

All connecting cables are provided with self-securing plugs. In order be bent down slightly. These pins must not be deformed or broken off. In case that the plug does not snap in correctly to the connecting contact, a completely new cable must be used.

Note about the speed

It is not possible to adjust the speed. In case that the number of revolutions does not correspond to the technical data, the device is defective.

Dismantling Remove all supplementary parts from the device and turn the switch to the "0" position.

Exchangeable parts assembled in the housing upper part

Remove the cover (1) by means of a dismantling fork (already existing for K 1000), see sketch 1.

Now, the leg spring (3), the lever (4) and the switching-PCB (5) can be reached.

Exchangeable Parts assembled in the housing lower part

For the sake of a better dismantling, the parts in the housing upper part must be dismantled.

Take off the setting knob (10) and the switch knob (11) to the front. Remove the button (12) and the pressure spring (13) to the front.

Place the supporting plate underneath the corresponding coupling shaft by inserting the supporting bolt from the lower side into the small long hole (8 x 3 mm) in the base plate, see sketch 2. Now, cleave the coupling (7) with an appropriate tool (e.g. screwdriver size 4 - 5.5 mm) in the center of the top and remove it from the shaft.

Unscrew the screws (35) in the base (33) and remove the base.

The completely assembled carrier with motor can be removed from the housing.

All remaining parts which are as well shown in the exploded drawing can be dismantled and exchanged.

Before dismantling the gear wheel (28), the tension roller (27) and the motor (18) the toothed belt (29) must be removed.

The safety lock (8) is inserted in the housing by means of two snap-in pins.

Reassembly To be performed in reversed order. However, attention must be paid to the following points:

After reassembling the gear wheel (28) and the motor (18) the toothed belt must be orderly positioned and the tension must be reapplied.

Attention must be paid to the reassembling position of the motor and to the cable connection (+/-), see sketch 3.

Tension of the toothed belt: Slightly loosen the motor securing screws and displace the motor (18) on the carrier. If the toothed belt is correctly tensioned, the motor securing screws (25) will be tied. Please refer to sketch 4 for the tension value of the toothed belt.

The both washers (22) must be attached to the shafts. The O-rings (15) must be inserted into the housing.

Attach all dampers (23) for the carrier.

Insert the completely reassembled carrier into the housing (9).

Connect the leads to the switch-PCB (36), see sketch 3.

Insert the switch-PCB into the guides of the base plate and the switch cams (37), see sketch 6.

Attach the base (33) and the rubber feet (34).

Place the supporting plate underneath the corresponding coupling shaft. Then, press the coupling onto the shaft by slightly tapping against the embossing spike. The axial free space of the coupling shafts must be 0.4 mm - 0.6 mm, see sketch 5 (symbolic illustration). A smaller or larger axial free space may cause a defect of the appliance.

Insert the setting knob (10), and make sure that the potentiometer for the setting knob axis is placed in the correct position.

Insert the spring (14) into the housing front.

Assemble the pressure spring (13), the button (12) and the switch knob (11), see sketch 6.

Connect the leads to the switching-PCB (5) and insert the switching-PCB into the housing upper part.

Insert the lever (4) and the leg spring (3), see sketch 7 (symbolic illustration).

Attach the cover (1) to the housing upper part until it snaps in.

Measuring points PCB

In case the switching contacts on the PCBs (5 and 36) are closed and a connecting wire at the motor (for example +) is taken off for the measuring process.

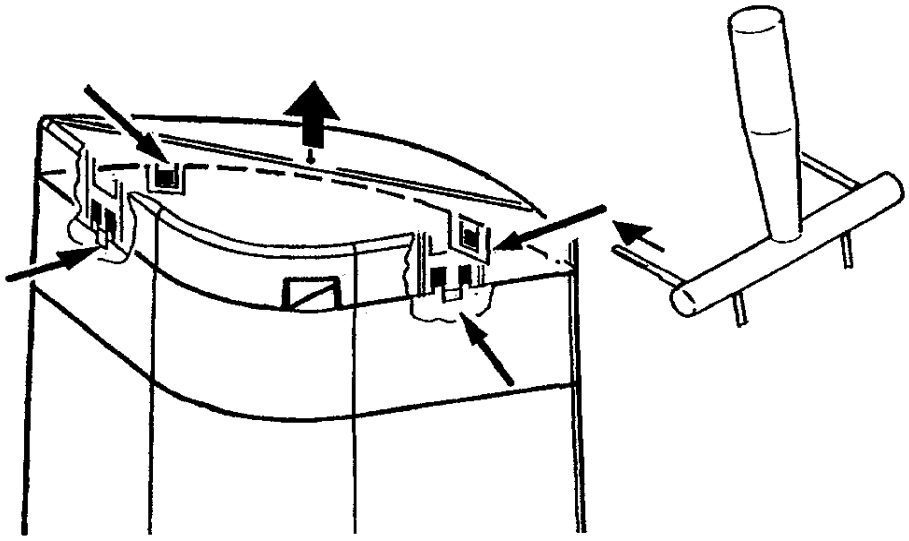
N	L	Mains voltage
+	-	165-170 Volts DC voltage (intermittent 6-10 kHz)
P	M	165-170 Volts DC voltage (constant)
N	~	Mains voltage

Function Check

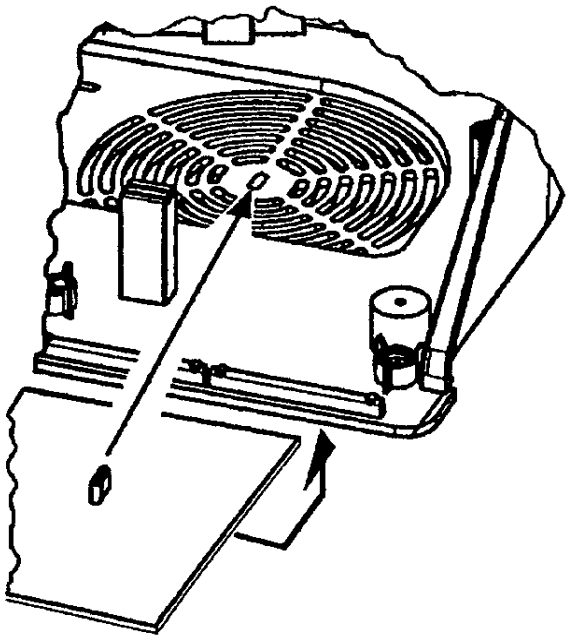
Check the appliance in all switching positions and, if necessary, attach the available supplementary parts.

Check the security locks with and without the complete bowl.

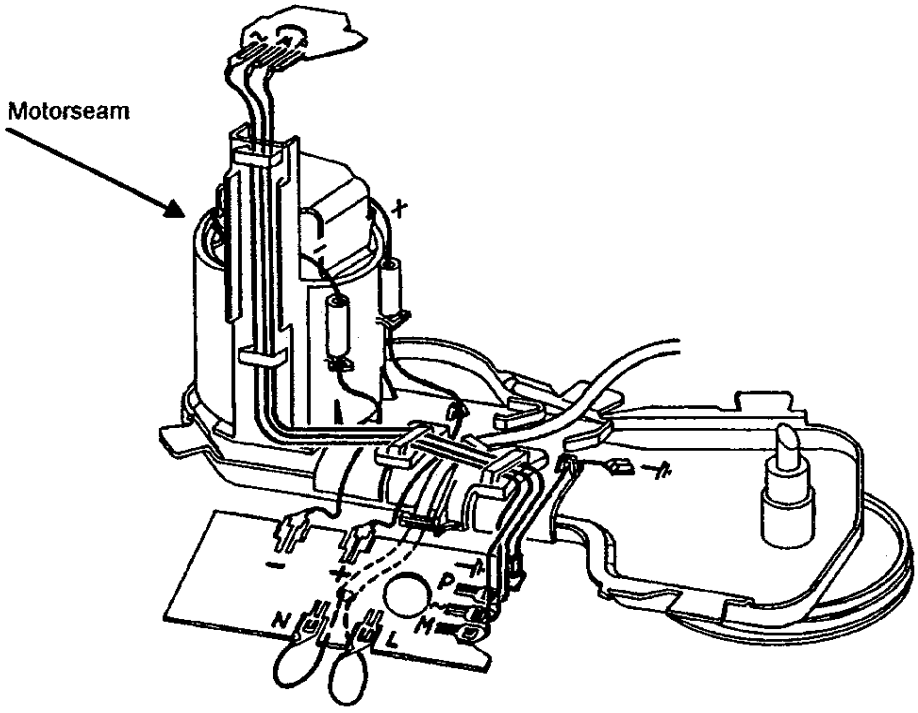
Sketch 1



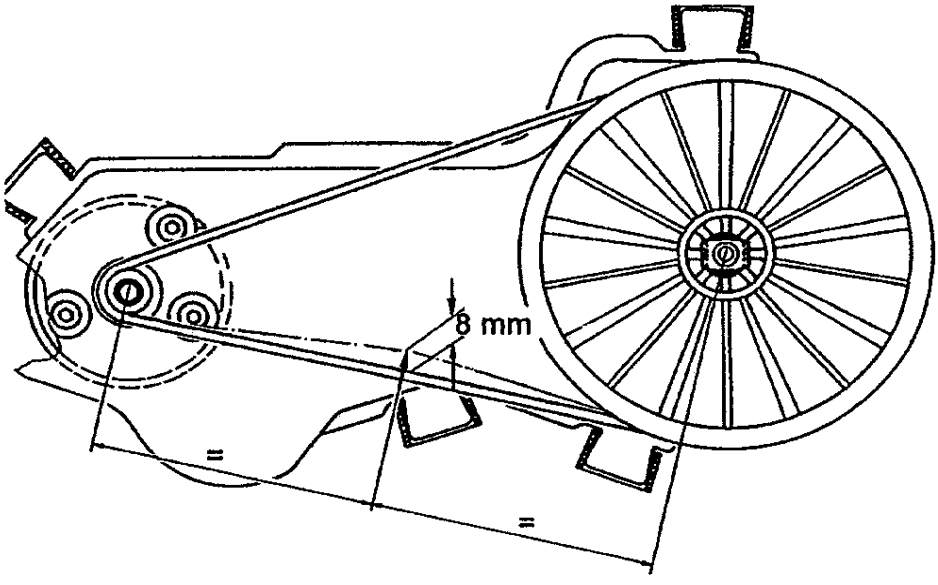
Sketch 2



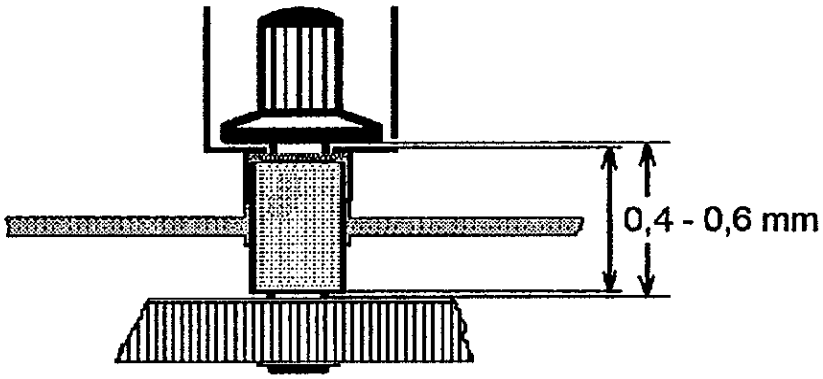
Sketch 3



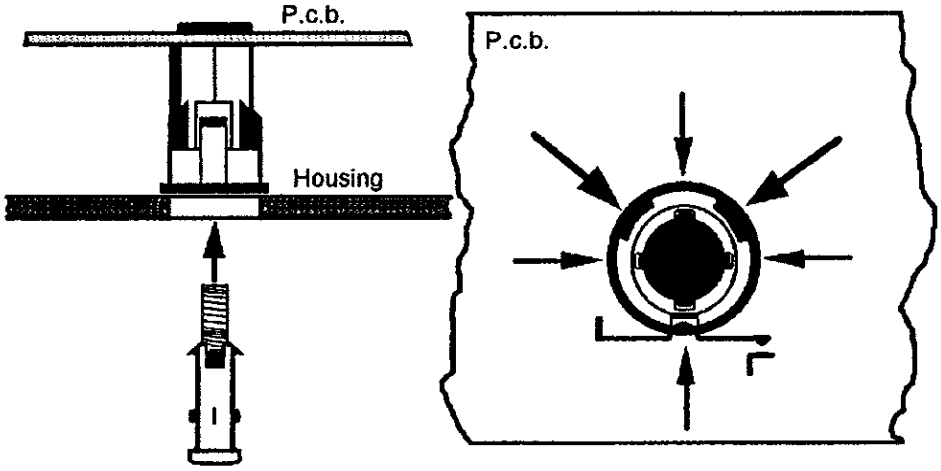
Sketch 4



Sketch 5



Sketch 6



Sketch 7