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Domestic Appliances and Personal Care

# Service Manual

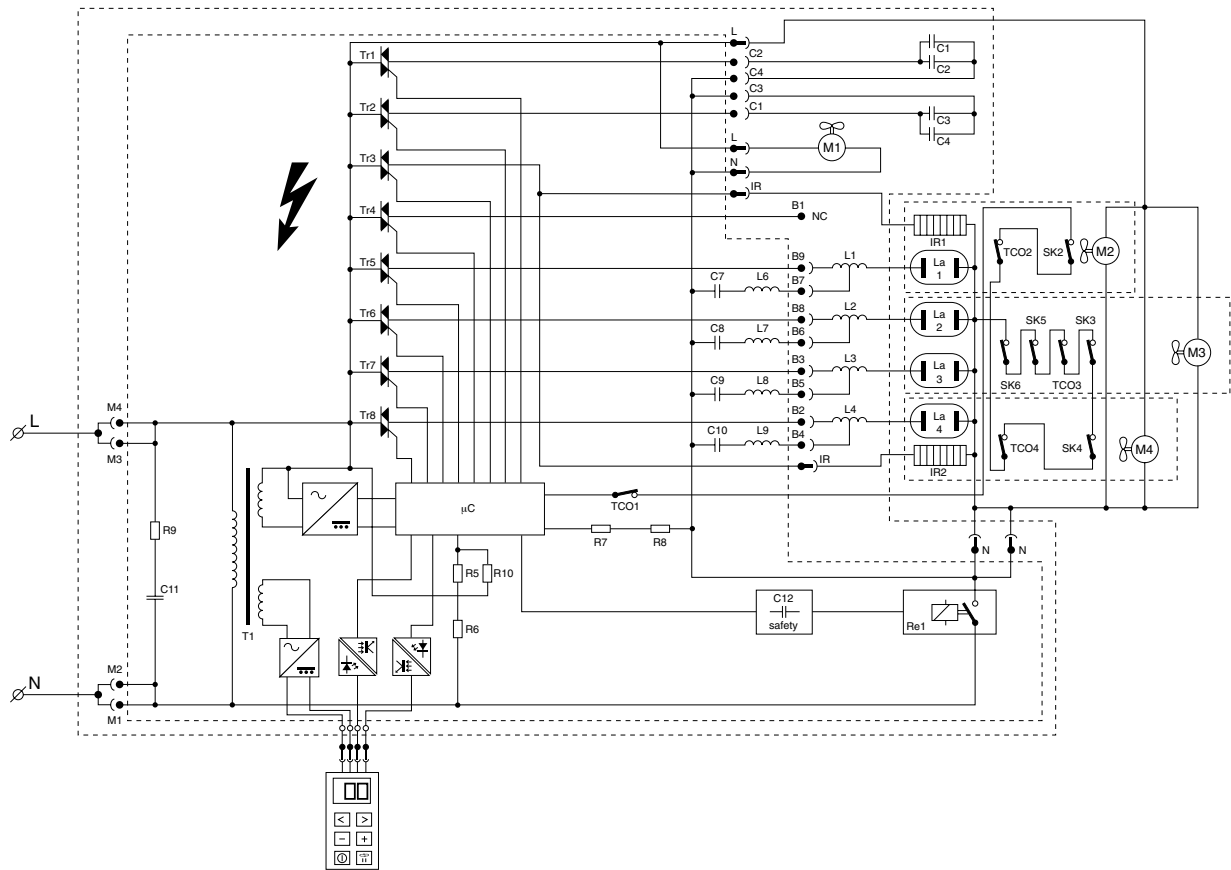
## TECHNICAL DATA

Input voltage	: 230V - 50Hz
Input consumption	: approx. 2550W
Fuse	: 16 A
UVA source	: 4x HPA Flexpower 400-600
Ballast	: 2x 400W : 2x 500W
Starter	: integrated soft start system
Timer	: digital 30 mins
Cooling	: 1x fan floor part : 3x fan tanning part
Radiation area	: 190 x 70 cm
Output (min) UVX-36 meter	: 4.2 mW/cm <sup>2</sup> at 65 cm
in centre facial unit	
Protecting goggles	: 2x HB072 - 4822 690 80147
Safety	: CENELEC insulation class 2 : UV type 3
Weight	: approx. 45 kg

AS THE APPLIANCE IS HIGHLY SUSCEPTIBLE TO SCRATCHING, YOU SHOULD BE EXTRA CAREFUL DURING DISASSEMBLY.

TO PREVENT THE MULTI-CORE CABLES FROM GETTING DAMAGED AT THE HINGES, THEY MUST BE ASSEMBLED AND CLAMPED AT THE ORIGINAL PLACES.





## TECHNICAL INFORMATION

Tanning appliance HB975 is equipped with a universal power PCB.

This means that the specific characteristics of the appliance have to be programmed in a microcontroller to determine the way in which various components are activated.

When the mains plug is inserted into the wall socket, the display of the remote control will show all functions available to the user.

Including the various combinations, these functions are:

- time setting
- ☀ ☀ full body tanning
- ☀ ☀ half body tanning
- ☀ ☀ relax session

The UV lamps may produce a humming sound just after start-up. This humming sound will stop as soon as the lamps burn properly, which is after about 20 seconds. At this point the light intensity clearly increases.

During the last minute of the session the beeper produces an intermittent signal to alert the user to the fact that a new session can be set.

After pressing the **||** key, the display showing ☀ and □□ the UV working hours will be shown. After 750 operating hours, an L will automatically appear on the display to indicate that the HPA lamps need to be replaced or the tanning time must be slightly increased.

The clock speed of the  $\mu$ -controller is derived from the 50 Hz mains frequency.

This frequency is also used to control the 8 triacs that determine the switch-in point (soft start) of the  $\cos \varphi$  capacitors and the HPA and IR lamps.

The fans are switched via the safety relay. This relay is part of the (one fault condition) timer circuit.

If the control of the triacs is disturbed due to a fault in the  $\mu$ -controller, the UV lamps may not be switched off.

As the  $\mu$ -controller also generates a pulsating direct voltage to power the relay, the relay will be de-energised in case of a fault, thereby interrupting the lamp circuit.

Conversely, the appliance will not start if the switch contacts of the relay are closed at that moment (sticking contacts).

The remote control is galvanically isolated from the mains, with power supply and control taking place via a 4-core cable.

The remote control only functions as input/output terminal.

The IR lamps are started by means of the conventional phase cut-in principle and burn at full power after about 8 seconds.

## DISASSEMBLY

### 1. FLOOR PART (item 37)

- Remove the cord holders (item 28) and detach the cord clamps at the back.
- Remove the covers (item 29 and 39).  
The cover on the flex side can only be removed last.

### 2. REMOTE CONTROL (item 41)

- Remove the cord holder and pull the connector loose.

### 3. WHEEL (item 49)

- Remove the covers (item 29,39).
- Remove the locking plate and the nearest frame screw.
- Push the shaft out of its clamping.

### 4. GAS SPRING (item 14)

- Remove the covers (item 29,39).
- Put the appliance in its highest operating position (to ensure that no pressure is exerted on the gas spring) and tighten the ornamental screw (item 26).
- Loosen the 10-core cable so that the cable can easily slide through the cable duct.
- Remove a retaining ring from the hinge shaft at A.
- Tilt the appliance carefully so that the radiation part rests on the floor.
- Support the floor part to remove the pressure from the hinge shaft.
- Remove the hinge shaft and lower the floor part onto the floor.
- Remove the 2 bearing bushes.
- Loosen the ornamental screw (item 26), slide the top part of the stand approx. 20 cm inwards and tighten the screw again.
- Remove the 2 screws from the upper part of the stand at B and pull this part loose from the hinge.
- After the shafts have been removed, the gas spring can be slid out of the stand.

### 5. HEIGHT ADJUSTMENT (item 27)

- Loosen the lower attachment of the gas spring in the manner described under 4.
- Remove the cord with its clamping by pressing the snap clamping on the inside.
- Remove the outer tube.
- Remove the 2 guide blocks and slide the clamping block from the inner tube.

### 6. HINGE WITH GAS SPRING (item 12)

- Remove the stand part in the manner described under 4 and 5.
- Remove the upper ornamental strips from the hinge part.
- Remove the cover (item 17) from the radiation part.
- Remove the cover from the connector compartment.
- Detach the 10-core cable.
- Remove the retaining ring from the locking shaft at C and push the shaft out of the stand.
- Remove the hinge part.

### 7. HPA LAMP (item 23) or IR LAMP (item 23A)

- Remove the glass filter from the lamp unit in question.  
The lamp unit will continue to cling to the upper part.
- Remove the reflector clamps.
- Remove the reflector and take the lamp from the holder.

NB: When checking or replacing HPA lamps, pay attention to the following:

- HPA lamps only start burning when they have cooled down sufficiently.
- Never touch a lamp with your fingers.  
Clean the lamp with a cloth moistened with alcohol, if necessary.
- After assembly the glass filter should be free from finger prints and dust. Clean the glass filter with a cloth moistened with alcohol, if necessary.

### 8. COVER OUTER SECTION (item 19)

- Remove the cover (item 17) and the cover of the connector compartment.
- Detach the wires of the outer section.
- Support this section and remove the 3 fixing screws at D.

### 9. COVER INNER SECTION (item 1)

- Disassembly of the cover is not advisable, since the non-visible parts of the pivot can only be fitted with special tools.  
For this reason, the cover is supplied as a whole with grip plate and wiring.
- Remove the centre glass filter and assemble it onto the new cover.
- Remove the outer sections (see under 8) and attach them to the inner section.
- Detach the wiring that runs through the tube of the stand.
- Remove the upper ornamental strips.
- Remove the retaining ring from the locking shaft at C and push the shaft out of the stand.
- Pull the inner section out of the stand.

### 10. POWER PCB (item 30)

- Pull the mains plug out of the wall socket.
- Remove the cover (item 29, see under .1)
- Replace the power PCB and connect all connectors.
- Place the cover on the base. The display of the remote control will now show error code E06 or E05.
- This indicates that the power PCB still needs to be programmed (code A09) for use in the HB975 according to the input in the table.

The following fault codes have been defined:

#### E01 - Safety circuit interrupted

This code will appear on the display for 5 seconds, while the beeper produces a loud beep.

Check whether the lamp units are in the correct position, whether all fans work or whether any UV filter is missing, broken or damaged.

#### E02 - Safety relay does not work according to specification
















Replace the power module (item 30).

#### E03 / Fault in microprocessor

E04 - Replace the power module (item 30).

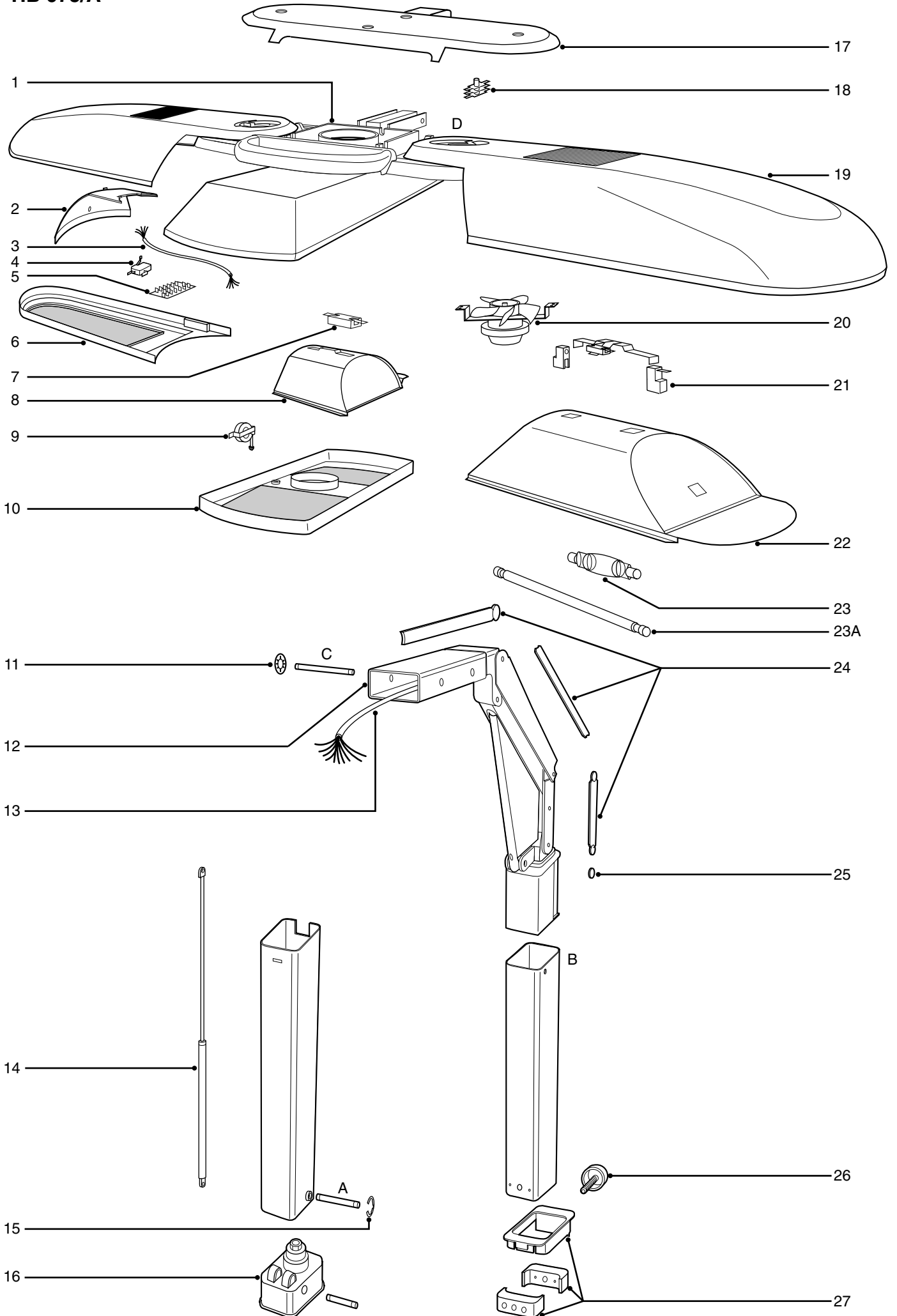
#### E05 / Application code not programmed

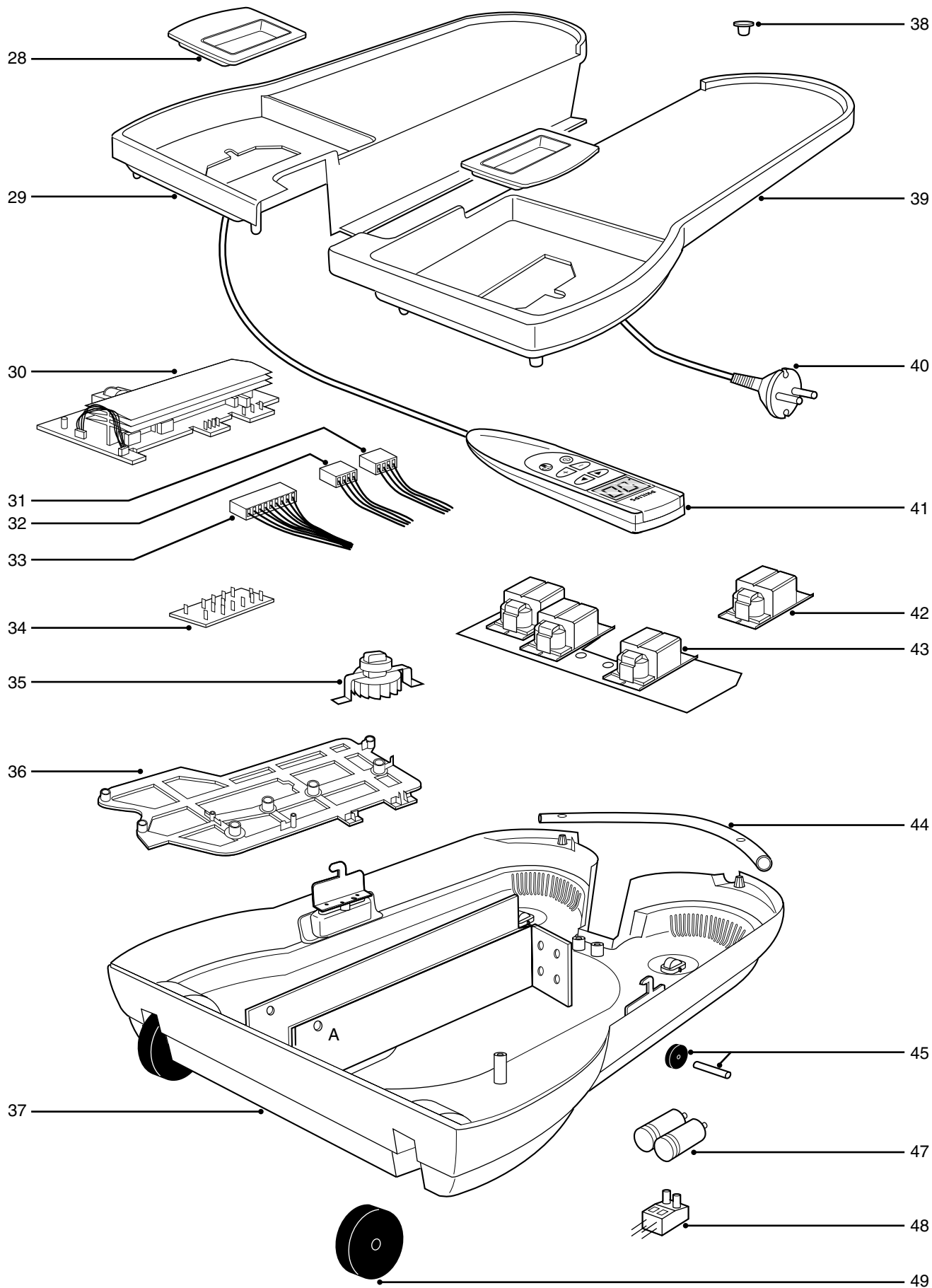
E06 - This only occurs in case of a new power module supplied by Service.  
Program the application code, beginning at line 1, step 3.

0	1	2	3	4	5	6	7	8	9	10	11
1	Open Service Mode	E5 E6	 Press	 + 1x	 + 1x	 + 1x	 + 1x	 + 1x	 + 1x	C00	
2	Set Application Code	 2x	C02	 1x	A00	 9x	A09	 1x	C02	 2x	C00
3	Close Service Mode	 1x	00   								

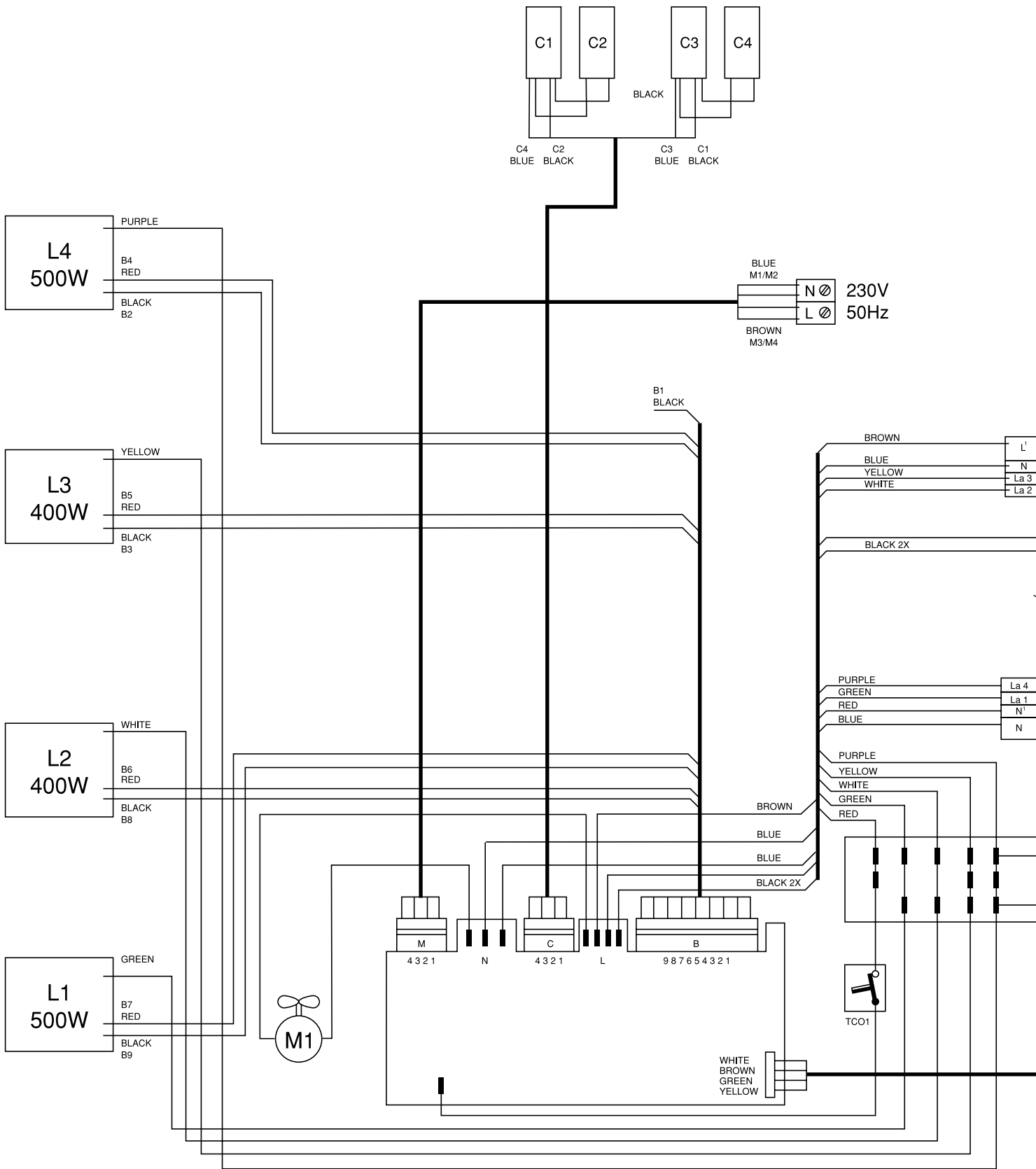
1	4222 062 94940	housing with grip	24	4222 062 94770	orn. strips (2x3)
2	4822 442 01238	end cover	25	4222 062 94780	orn. caps (4x)
3	4222 062 94970	flex l/r 6c	26	4222 062 94750	adj. knob
4	4822 271 30619	micro switch	27	4822 401 11732	clamping unit
5	4822 214 12662	14-tabs pcb	28	4822 256 10435	flexholder L/R
6	4222 062 94960	lamphousing L/R	29	4822 442 01236	cover R.C.-side
7	4822 252 11236	automatic cutout 120C	30	4222 062 94720	power module
8	4822 380 10228	reflector M	31	4222 062 94860	4-s connector mains
9	4822 450 10449	distance indicator	32	4222 062 94870	4-s connector capacitors
10	4222 062 94930	lamphousing M	33	4222 062 94850	9-s connector ballasts
11	4822 530 70444	spring washer	34	= 5	
12	4222 062 94760	hinge complete	35	4222 062 94730	fan complete
13	4222 062 94910	flex in stand 10c	36	4222 062 95010	pcb frame
14	4822 529 10401	gasspring	37	4222 062 94900	housing floorpart
15	4822 530 70126	retaining ring	38	4222 062 94920	orn. prop (4+2)
16	4822 401 11733	flex clamping	39	4822 442 01235	cover flex-side
17	4222 062 94950	grip cover	40	4822 321 11395	mains flex EU
18	4822 265 11215	tab connector	41	4222 062 94710	remote control
19	4222 062 94980	cover L/R	42	4822 146 10935	ballast 500W/230V
20	4822 361 11042	fan complete M	43	4222 062 94330	ballast 400W/230V
	4222 062 94810	fan complete L/R	44	4222 062 94740	bar grip
21	4822 325 20102	lampholder UV/IR	45	4822 528 70519	wheel small
22	4222 062 94220	reflector L/R	47	4222 062 94600	capacitor 50µF/250V
23	4822 134 30032	HPA lamp	48	4822 265 20234	connecting block mains
23A	9245 424 44225	IRK lamp	49	4822 528 11215	wheel large

# HB 975/A

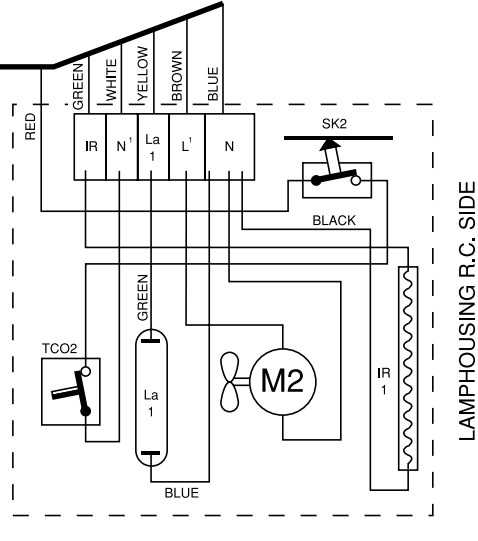
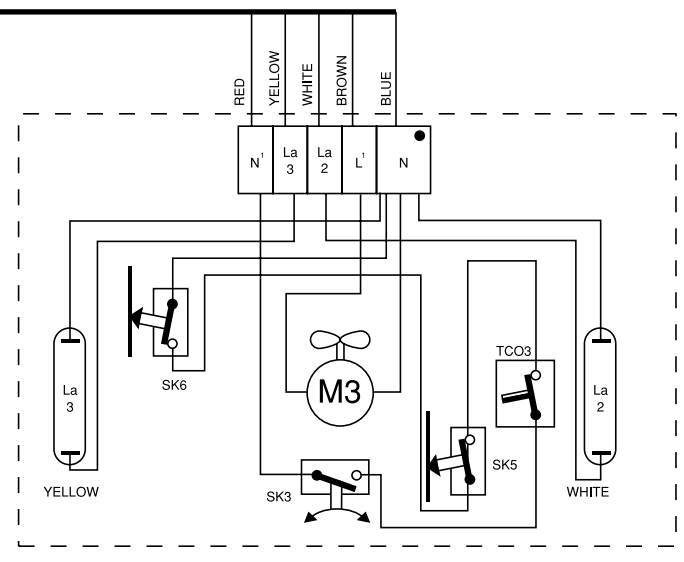
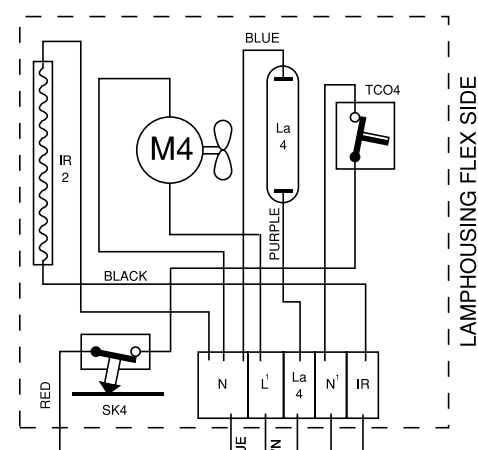
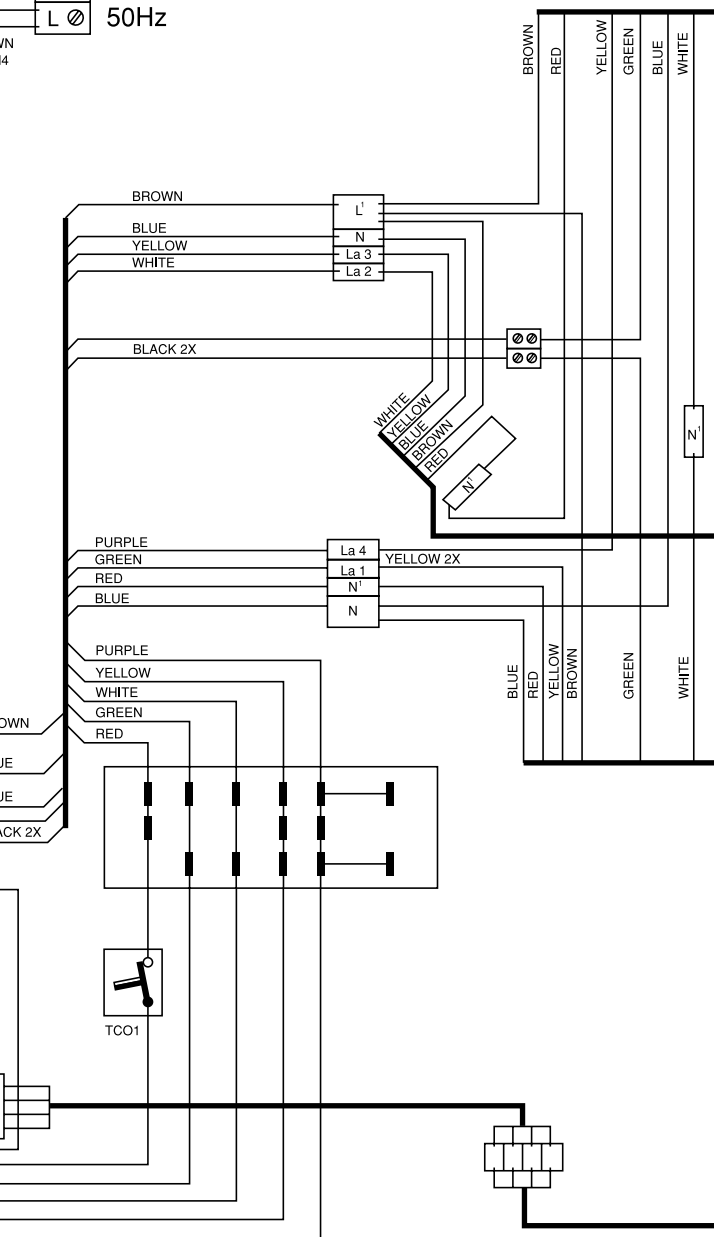




# HB 975/A



N 230V  
L 50Hz



REMOTE CONTROL