



# **Instruction Manual for SM-800A**

## **COUNTER TOP MIXER**



### **Installation, Operation and Maintenance Instructions**

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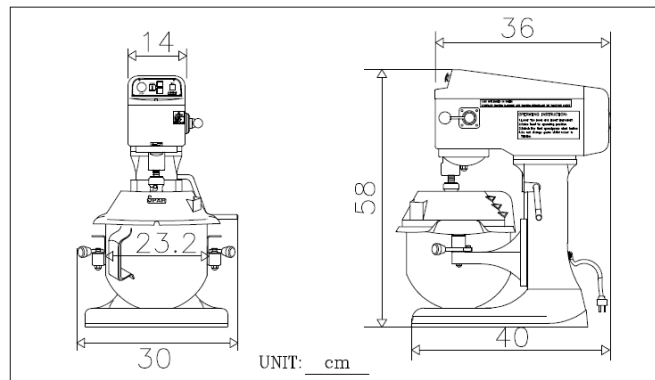
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Revised in December, 2009

## SM-800A

SPECIFICATION	
Model	SM-800A
Bowl Size	8 Quarts (7.6 Liters)
Motor	1/4HP (0.20KW)
Electrics	110V/60HZ, 220V/50HZ Single phase
Speeds	1st gear 132 rpm 2nd gear 235 rpm 3rd gear 421 rpm
Dimensions (cm) (L x W x H)	40 x 30 x 58 47 x 36 x 66 carton
Weight	Gross 27kg Net 25kg
Standard Equipment	Pastry Knife, Stainless steel bowl with Beater, Whisk and Spiral Dough hook.



Because of continual improvements, strict accuracy of description cannot be guaranteed.

## GUARANTEE

**SMAKY** provides one year guarantee, either the date of dispatch from our factory, or the date of purchase from one of our approved distributor.

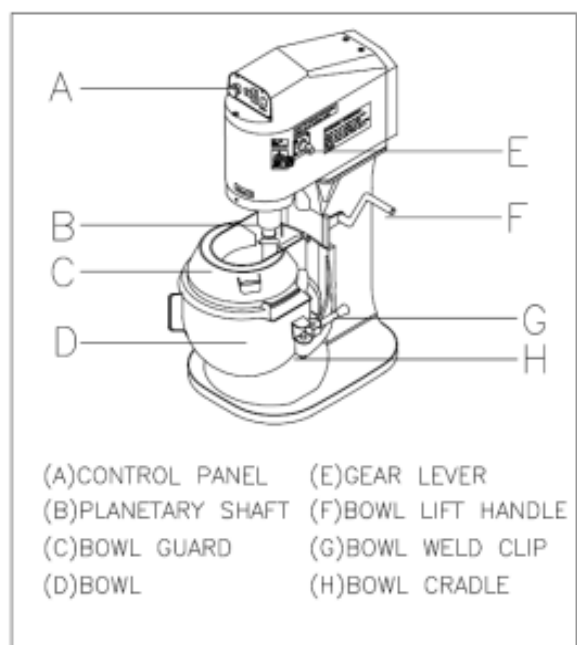
**SMAKY** will replace any defected parts resulted from faulty design, material or workmanship. In addition to this, any repair must be carried out by our authorized service agent.

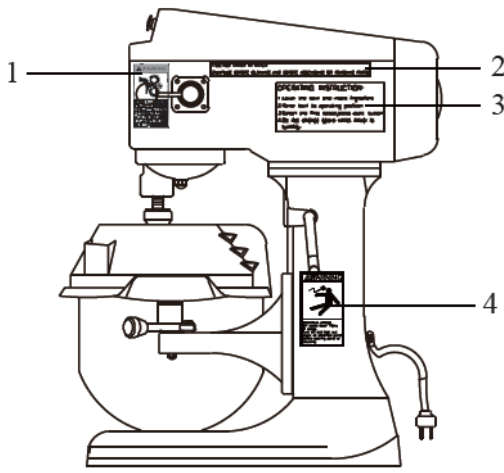
All defective parts without any alteration or repair can be returned to SMAKY or the nearest authorized representative, postage paid within one year warranty.

**SM-800A** is a desk top planetary mixer designed for commercial use by the professional caterer. It has a total bowl capacity of 8 Quarts, combined with 3 speed gearbox to ensure that all mixing requirements can be met.

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Moving parts can crush and cut.  
Do not operate with guard removed.  
Follow lockout procedure before servicing.

(1)

**STOP MIXER**  
BEFORE  
CHANGING SPEED

DO NOT IMMERSE IN WATER  
UNPLUG BEFORE CLEANING AND BEFORE ASSEMBLING OR REMOVING PARTS

(2)

(3)

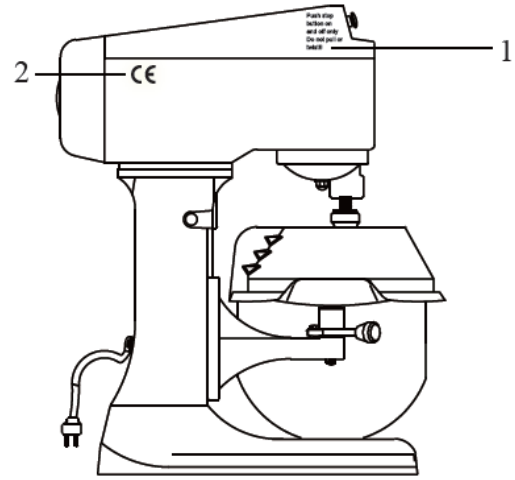
#### OPERATING INSTRUCTION:

1. Lower the bowl and insert ingredient
2. Raise bowl to operating position
3. Select the first speed, press start button
4. Do not change gears whilst mixer is turning

(4)

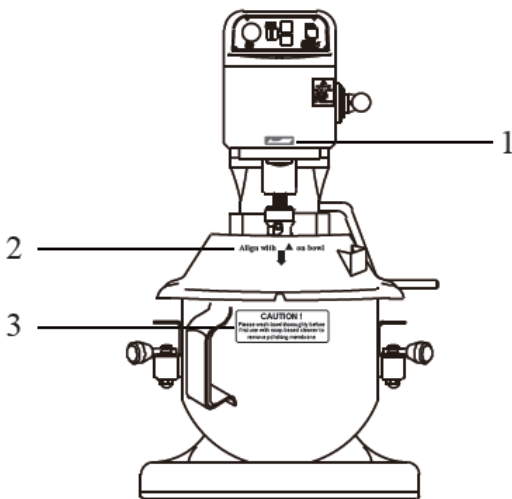


Hazardous voltage will cause severe injury or death. Turn off and lock out power at electrical panel before opening panel or servicing.



(1) Push STOP button ON and OFF only  
Do not pull or twist!!

(2)



(1)



(2)

Align with ▲ on bowl

(3)

#### CAUTION !

Please wash bowl thoroughly before first use with soap-based cleaner to remove polishing membrane

## INSTALLATION

The machine is supplied factory lubricated and ready to run. It can be positioned on any substantial work surface or bench which is capable of supporting a load of 30kg. The transportation should require two people. Please see Figure 1.

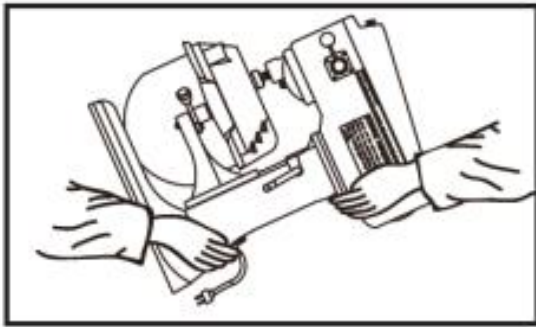


Figure 1

## ELECTRICAL CONNECTION

Before connecting this machine to the electrical supply, please check the details on the rating plate (located on the rear of the machine) corresponding to the details of your electrical connection. The mixer is supplied with a trailing lead fitted with a molded plug. If the style of plug is unsuitable for the socket you plan to use, the plug must be cut off and replaced with an appropriate plug.

The mixer should be plugged into a switched socket which isolates all poles and has a minimum contact clearance of 3mm and located close to the mixer for use in an emergency and to facilitate servicing. (max.2 meters of cable) The machine must be incorporated into a potential equalization system. The leakage current for this appliance is no greater than 1mA/KW. If the electrical supply cable to the machine becomes damaged, it must be replaced by a qualified electrician using cable which is 0.75 or higher and suitable for a 1/4HP motor load. The ground wire is fixed to the machine and this connection must be kept intact. **The mixer MUST be grounded.**

- The minimum requirement for all electrical equipment is correct operation between air temperature of +5°C and +4°C.
- Electrical equipment is capable of operating correctly when the relative humidity does not exceeding 95% at a maximum temperature of +40°C.
- Electrical equipment is capable of operating correctly at altitude up to 1000m.
- Electrical equipment is designed to withstand to protected against the effects of transportation, and storage temperature within a range of -25°C to +55°C and for short periods not exceeding 24h at up to +70°C.

## BEFORE USING THE MIXER

Before using the mixer, please ensure that all users are familiar with the correct operation of the machine. In particular, care should be taken to ensure that the bowl and mixing tools are correctly fitted and the bowl cradle is in the raised position prior to starting the machine.

## SAFETY AT WORK

Never place your hand or any kitchen utensil into the bowl when the mixer is in operation.

Please isolate the machine from the electrical supply by removing the plug from the socket before cleaning or dismantling.

A notice advising operators of the safe use of this mixer is attached to the machine.

## OFFICE, SHOPS AND RAILWAY PREMISES ACT, 1963

The above Act requires that this machine and attachments shall be operated only by a properly instructed person or by an employee who is under the supervision of a properly instructed person. The instruction shall include indication of the possible dangers arising and the precautions to be observed. The Act also requires that no person under the age of 18 shall clean a machine if this exposes him to risk of injury from a moving part of that machine or any adjacent machine.

## **CORRECT USE OF THE MIXER**

It is the responsibility of the users to use the mixer correctly within the recommended limitations. Always follow the instructions on the side of the machine when changing speed.

If the motor labors, stop the machine and reduce the size of the mix immediately.

Damage resulting from improper use is not covered by the SMAKY warranty.

For operator safety, the machines is fitted with a bowl guard which is electrically interlocked to ensure that the mixer cannot operate unless the guard is correctly positioned and the bowl is raised.

For additional safety the mixer has a no volt release feature which means that in the event of a power failure, the machine will only restart after the control arrangement ensures that when the supply is restored, the machine cannot restart on its own.

- Careful handling of bagged products by minimizing the height above the bowl base from which they are poured.
- Careful slitting of bags in the lower part of the bowl to allow dust free discharge of flour as far as possible.
- Use of Temporary bowl covers to minimize openings through which flour may escape.

## **BOWL LIFT & BOWL GUARD**

The bowl cradle and guard are electrically interlocked so that the machine will only operate with the bowl cradle in the raised position. In addition to this, the bowl guard must be placed into position by aligning the upside-down V cut into the safety guard with the small raised portion on the lip of the bowl.

Only once the bowl is raised and the guard locked will the machine operate, thus ensuring total user safety at all times.

Once the guard has been opened or the bowl lowered, the machine can only be restarted by pressing the start button. During the mixing process additional ingredients can be added by means of the chute located on the right hand side of the bowl guard.

## **TOOL SELECTION**

The beater, whisk and spiral dough hook are meant for the work implied by their names.

Do not use the beater for dough making or the whisk for anything other than whisking, aerating or mixing light mixtures.

Table 1 shows the typical uses for each tool.





	Beater: Firm mixes such as light pastry, cakes biscuits, icings fillings and mashed vegetables.
	Spiral Dough Hook: Heavy mixes such as dough, pie pastry and sausage meat.
	Whisk: Light mixes such as whipped cream, mayonnaise, egg whites, pancakes and soufflés.
	Pastry knife

Table 1

## **FITTING THE BOWL**

With the bowl cradle lowered, place the chosen mixing tool in the bowl and position the bowl on the cradle. There are three location points for the bowl:

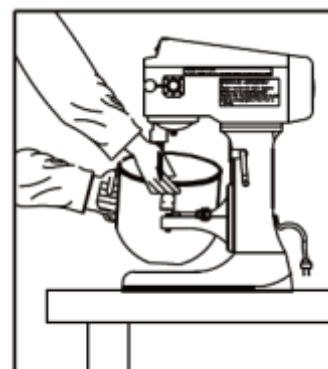


Figure 2

(a) The locking pin at the rear of the bowl should locate in the hole of the cradle.

(b) The two weld clips in the bowl handles must engage on the locating pins located on the cradle.

(c) Latching the bowl locking. Ensure that the bowl is seated correctly on the cradle before securing the bowl locking latches prior to use.

## FITTING THE MIXING TOOL

Slide the bayonet fitting of the tool onto the drive shaft and twist clockwise to secure it in position.

To remove the mixing tool, slide the tool up the shaft slightly and twist counter clockwise. Please see figure 3.



Figure 3

**!** Note: After cleaning, please wipe the shaft with Vaseline or oil for better lubrication and preventing rust.

## SPEED SELECTION

Before changing speeds, the mixer must always be stopped. The necessary speed can then be selected before restarting the machine by pressing the red start button.

The speed selected depends largely on the quantity and consistency of the product. It is recommended that mixing is always started at the lowest speed and progressively increased to the desired speed. In an emergency situation always use the red emergency stop button to stop the machine. Table 2 shows the recommended speeds for the range of tools.

	Recommended Speed		
	1st gear	2nd gear	3rd gear
Whisk	→		
Beater	→		
Hook	→		

Table 2

## CAPACITY

The following table lists the recommended capacities of finished weights of regular mixes. Although the machine may be capable of mixing larger quantities, it will lead to excessive and premature wear and possible failure. Overloading also results in lengthy processes and unsatisfactory results.

Product	Maximum Regular Mix	Whip	Beater	Spiral Hook
Mashed potato	1,8 Kg		*	*
Pie pastry	1,8 Kg		*	
Cookies	-		*	
Sponge cake	-	*	*	
Pound cake	-		*	
Marshmallow	-	*		
Fondant icing	1.3 Kg	*		
Whipping cream	2 lit.	*		
Egg whites	0.35 lit.	*		
Mayonnaise	-	*		
Batter	-	*	*	
Pasta, Egg noodle	900 g			*
Brioche (kg flour)	-			*
Raised Donut dough (65% moisture content)	1 Kg			*
Heavy bread dough (55% moisture content)	1.25 Kg			*
Pizza dough (50% moisture content)	1.25 Kg			*
Pizza dough (40% moisture content)	1 Kg			*

1. Recommended weight for a finished mix unless otherwise stated.  
 2. Water content e.g. 25# flour / 12.5# water = 50% moisture.  
 3. For pizza dough with lower moisture content, please consult SMAKY  
 4. For higher gluten flour reduce dough batch by 25%.

Table 3

⚠Note: To large a quantity is always detrimental to the quality of the work and the life of the mechanical parts of the beater and may lead to abrupt stoppage.

If this happens with an extremely small/light batch, contact your nearest authorized service agent for further information.

## Noise Test Report

(1) Model No.: SM-800A

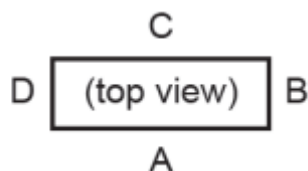
(2) Background noise:

Add Flour: background noise level is 54.0dB(A).

Dry running: background noise level is 52.6dB(A).

(3) Distance: 1m from the surface.

(4) Height: 1.6m from the floor.



Unit: dB(A)

	A	B	C	D	E
Add Flour	60.9	63.2	63.5	61.3	61.9
Dry Running	61.2	61.1	59.4	61.0	63.9

## Thermal overload protection

### (circuit breaker):

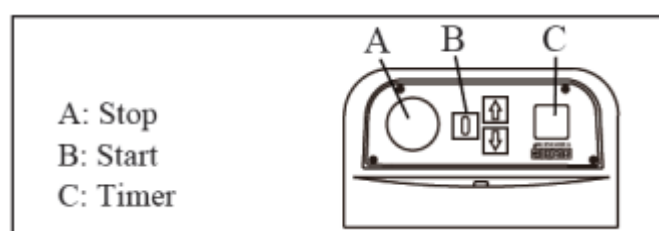
The thermal overload protection (circuit breaker) will shut off and stop the machine automatically. If this occurs, please turn off the mixer and reduce the size of the batch.

After waiting one minute, reset the circuit breaker (push in) and turn on the mixer. If mixers stop again, reduce the batch further.



Figure 4

## CONTROLS



The control panel is shown above, start the mixer by pressing the “start” button. Always start mixer at the first speed. Red button is for emergency stop. Set timer at “99” for manual operation. Set timer at 1-55 for automatic operation

## CARE OF YOUR MIXER

The mixer is designed for minimum user maintenance. It may be necessary from time to time to apply a little oil to the rods on which the bowl cradle slides. If so, use a little food quality lubricant, ensuring that there is no excess oil that could contaminate the food mix.

Water jet cleaning is not allowed. Clean the mixer thoroughly after use. The body should be wiped down with a damp cloth after first isolating the machine from the electricity supply. Do not spray the machine with or immerse it in water. Do not forget to clean the rear of the machine and do not allow the rear vents to become blocked as this may result in overheating.

Pay particular attention to the bowl pins and any surrounding areas of the cradle to prevent a buildup of mix as this could prevent incorrect location of the bowl. For the same reason, ensure that the beater shaft and each of the sockets on the tools are cleaned thoroughly. The bowl and tools

should be washed in hot soapy water, rinsed and dried before being put into storage. Do not wash the tools in a dishwasher as the polished finish will be adversely affected by the dishwashing chemicals.

- Steady state voltage: 0.9-1.1 of nominal voltage.
- Frequency: 0.99-1.01 of nominal frequency continuously.
- Avoid exposing to vibration environment.
- Avoid exposing to direct sunlight or heat rays.

The overcurrent protection device should be rated 2A in supply side by user at least.

## **MAINTENANCE**

Regular maintenance is necessary on all machines if they are to remain in good working order. It is strongly recommended that this be carried out by trained technicians from a SMAKY appointed distributor.

### **GEARBOX LUBRICANT**

Please refill the lubricant inside the gearbox every 5 years. We recommended that this servicing or maintenance work must be carried out by trained technicians from a SMAKY appointed distributor.

**CAUTION:** Please use either Mobil lubricant “XHP 222” or Brugarolas “GRASA AGUILA PLEX 2-BOLSA” to refill the gearbox.

### **PLANETARY UNIT LUBRICANT**

In case there is a strange noise coming from the planetary unit, please reapply grease to the planetary unit. We recommended that this servicing or maintenance work must be carried out by trained technicians from a SMAKY appointed distributor.

**CAUTION:** Please use TACBECON grease “DGK-100” to lubricate the planetary unit.

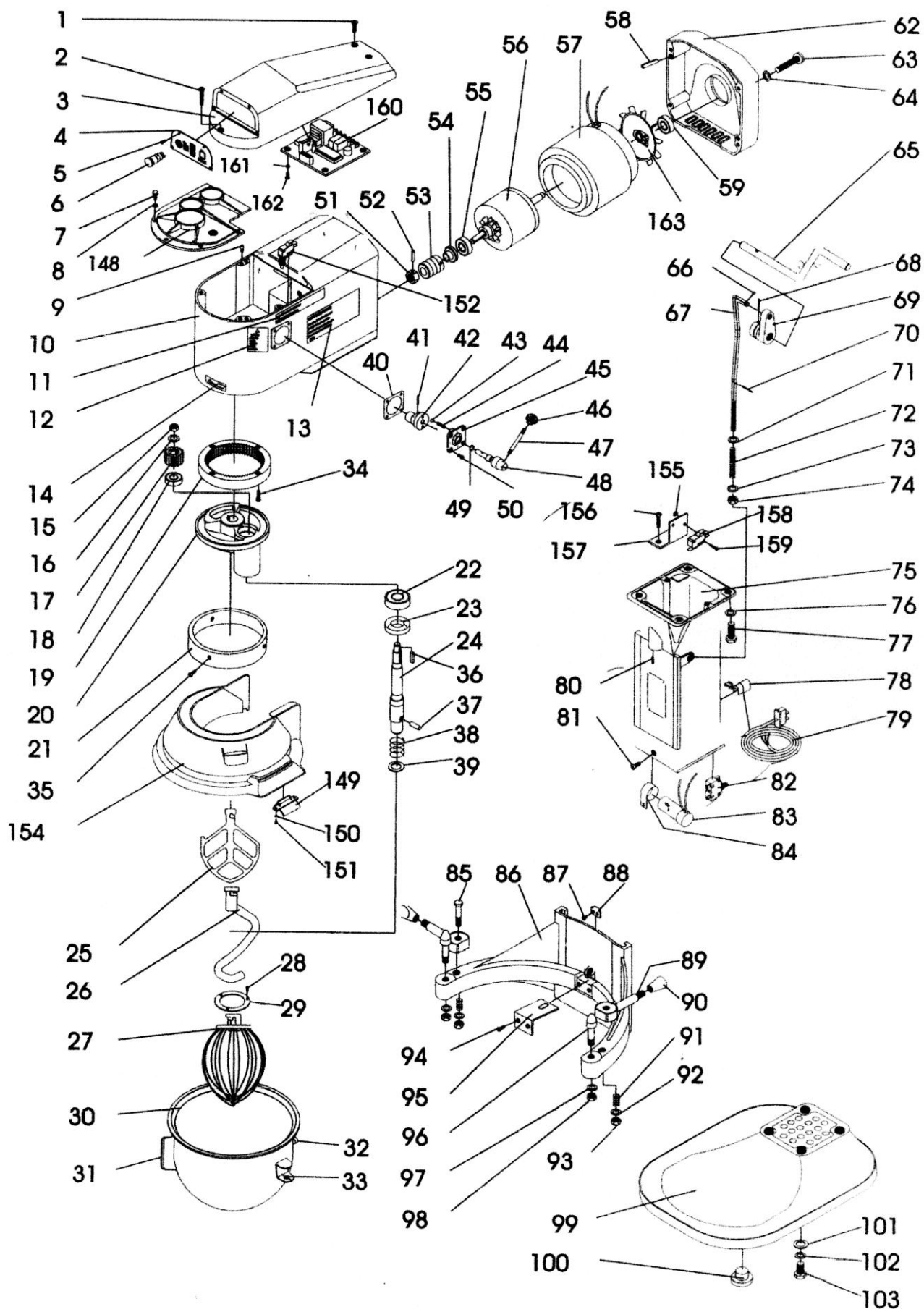
<b>FAULT FINDING</b>		
<b>FAULT</b>	<b>CHECK</b>	<b>POSSIBLE REASON AND ACTION REQUIRED</b>
No power to mixer	Check plug socket Check wiring in plug Check fuse in plug Check or change cable Check microswitch Check motor carbon brush Check circuit breaker over load or short	Mixer not plugged into a live socket or not switched on Plug incorrectly wired – rewire correctly Possible faulty fuse – replace fuse Cable damaged or split – replace cable Limit switch damaged or faulty – replace switch Motor carbon brush worn – replace carbon brush Circuit breaker shut off or constantly short – reset or replace the circuit breaker (automatically reset).
Mixer becomes noisy	Check bowl and tools Check work surface Check the wear of bearing	Ensure that bowl and tool are correctly seated. Uneven surfaces create excessive resonance. Worn bearings – replace bearings
Mixer loses power	Check capacity	Overloading of bowl – reduce load
Motor overheating	Check supply voltage	Voltage should correspond to rating plate
Oil on planetary shaft	Check oil seal	Worn oil seal – change oil seal
Mixing tools stuck on planetary shaft	Check planetary shaft bent, unclean or rusted.	Planetary shaft twisted or bent – please change planetary shaft. Planetary shaft rusted – please use descaler for derusting. Turn planetary shaft anti-clockwise to meet square groove, gently knock down mixing tools.

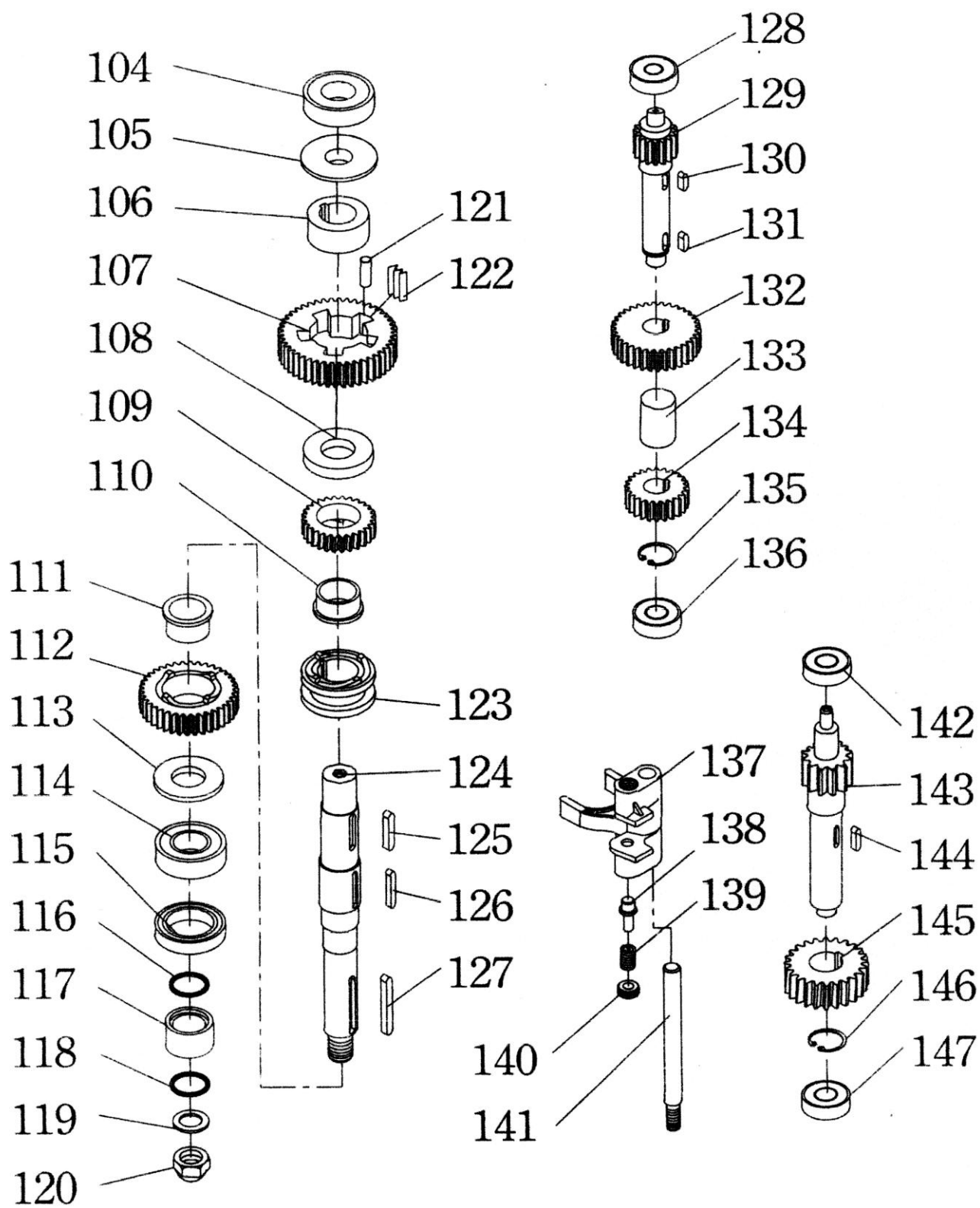
▲ It is recommended that any servicing or maintenance work must be carried out by a trained technician or electrician.

▲ Isolate the mixer from the electricity supply by removing the plug from the socket before cleaning or servicing.

▲ Isolate the mixer from the electricity supply by removing the plug from the socket after long period of no use.







ITEM	QTY.	DESCRIPTION	REMARK
1	2	screw:M5x20	
2	1	screw:M4x30	
3	1	transmission case cover	
3_2	1	gasket	
4	1	digital control panel	
5	4	screw:M3x6	
6	1	emergency stop button	
7	4	hex screw:M6x16	
8	4	spring washer:M6	
9	2	pin:M6x15	
10	1	transmission case	
11	1	label, cleaning instructions	
12	1	warning label	
13	1	warning label	
14	1	label, agitator direction	
15	1	nut:M6	
16	1	washer:M6x16x1	
17	1	pinion beater:17T	
18	1	ball bearing:#6001Z	
19	1	planetary gear:56T	
20	1	planetary holder	
21	1	planetary holder cover	
22	1	ball bearing:#6002Z	
23	1	oil seal:32x17x7	
24	1	planetary shaft	
25	1	aluminum flat beater	
	1	stainless steel flat beater	Optional Accessory
26	1	aluminum dough hook	
	1	stainless steel dough hook	Optional Accessory
27	1	wire whip	Include item#28 & #29
28	3	hex screw:M4x10	
29	1	stainless whip top	
30	1	bowl	Bowl Assembly
31	1	bowl handles	
32	1	bowl knob	
33	2	bowl weld clip	
34	4	screw:M6x13	
35	3	screw:M2.6x4	
36	1	key-way:4x8x8	
37	1	planetary pin	

ITEM	QTY.	DESCRIPTION	REMARK
38	1	spring, for planetary shaft	
39	1	planetary washer:13.1x1	
40	1	gear arm gasket	Gear Arm Assembly
41	1	o-ring:3x18	
42	1	ball socket	
43	2	spring	
44	2	spring	
45	1	gear arm plate	
46	1	black plastic gear knob	
47	1	gear arm plate	
48	1	gear arm shaft	
49	1	screw	
50	4	nut:M4x10	
51	4	nut:M10	
52	1	pin:3x10	
53	1	worm gear	Parts Configuration may vary. Please specify frequency when ordering.
54	1	oil seal	
55	1	ball bearing:#6203Z	
56	1	motor shaft and core	Motor Assembly
57	1	motor coil	
58	1	pin spring:6x12	Rear Cover of Motor Assembly
59	1	ball bearing:#6202Z	
60	1	***	
61	1	***	
62	1	rear cover	
63	4	screw:M5x50	
64	4	spring washer:M5	
65	1	bowl raise handle	
66	1	pin spring	Bowl Lift Handle Assembly
67	1	bowl lift rod	
68	1	pin spring:5x24	
69	1	bowl lift connection	
70	1	pin spring:3x18	
71	2	washer:M8x16x15	
72	1	spring washer:M5	
73	1	washer:M8x16x1.5	
74	1	nut:M8	
75	1	mixer column	

ITEM	QTY.	DESCRIPTION	REMARK
76	4	spring washer:M8	
77	4	hex screw:M8x25	
78	1	strain reliever	
79	1	cord and plug	
80	1	screw:M5x20	
81	1	screw:M5x21	
82	1	circuit breaker	
83	1	motor capacitor	
84	1	capacitor attachment	
85	2	hex screw:M5x45	
86	1	bowl cradle	
87	2	screw:M4x4	
88	1	clip	
89	2	bolw locking latches	Bowl Clamp Assembly
90	2	plastic knobs	
91	2	spring	
92	2	washer:M5	
93	4	nut-stop:M5	
94	2	screw:M5x10	
95	1	bowl lift bracket	
96	2	bowl lock pins	
97	2	spring washer:M8	
98	2	nut-stop:M8	
99	1	base	
100	4	bottom rubber knobs	
101	4	washer:M8x16	
102	4	spring washer:M8	
103	4	hex screw:M8x16	
104	1	ball bearing:#6202	
105	1	lead-in oil pad	
106	1	bushing	
107	1	first speed gear:46T	Parts Configuration may vary.
108	1	bushing	
109	1	gear clutch:25T	
110	1	third speed bushing	
111	1	second speed bushing	
112	1	second speed gear	Parts Configuration may vary.
113	1	bearing pad	
114	1	ball bearing:#6203Z	
115	1	oil sea:35x28x7	

ITEM	QTY.	DESCRIPTION	REMARK
116	1	o-ring:S15	Parts Configuration may vary.
117	1	oil bushing- 28mm	
118	1	o-ring:S15	Parts Configuration may vary.
119	1	s/s flat wahser:M8x22x2	
120	1	screw and nut:M8	
121	5	rollers:6.5x12.9	
122	5	slice spring	
123	1	clutch sleeve	
124	1	drive shaft	
125	1	key-way:5x5x18	
126	2	key-way:4x4x28	
127	1	key-way:5x5x26	
128	1	ball bearing:#6200Z	
129	1	transmission shaft	Parts Configuration may vary.
130	1	key-way:5x5x12	
131	1	key-way:5x5x14	
132	1	third speed gear:36T	
133	1	bronze bushing	
134	1	second speed gear	Parts Configuration may vary.
135	1	c-ring:S15	
136	1	ball bearing:#6200Z	
137	1	shifter yoke	Shifter Yoke Assembly
138	2	shifter yoke plunger	
139	2	shifter yoke spirng	
140	2	nut:M3	
141	1	shifter guide rod	
142	1	ball bearing:#6200Z	
143	1	master shaft:18T	
144	1	key-way:5x5x14	
145	1	bronze worm gear	Parts Configuration may vary.
146	1	c-ring:S15	
147	1	ball bearing:#6200Z	
148	1	transmission case top	
148_1	1	gasket	
149	2	clip	Safety Guard Assembly (include Chute)
150	1	washer	
151	1	screw	
154	1	safety guard	
154_1	1	chute of safety guard	
152	1	microswitch	

ITEM	QTY.	DESCRIPTION	REMARK
152_1	1	sleeve, for microswitch	
152_2	1	nut	
153	***	***	
155	4	nut:M3	
156	2	screw:M5	
157	1	microswitch fixture	
158	1	microswitch for bowl lifting	
159	2	screw:M3	
160	1	digital control board	
161	4	washer:M6x1	
162	4	screw:M3x10	
163	1	fan-cooling	