



# SPAR FOOD MACHINERY MFG. CO., LTD.

## SP-500A DESKTOP MIXER



### Installation, Operation and Maintenance Instructions

2009.February



## SPAR FOOD MACHINERY MFG. CO., LTD.

NO.145, 11th Industry Rd. Ta Li City, Taichung Hsien, Taiwan, 412 R.O.C.

Tel : (886)4-2491-7585

Fax : (886)4-2491-7565

<http://www.sparmixers.com>

e-mail : [spar@tcts.seed.net.tw](mailto:spar@tcts.seed.net.tw)

**Certificate  
of conformity with the following  
European Directives**

Registrier-Nr./Registered No.:

**NE11050004**

**Electromagnetic Compatibility Directive 2004/108/EC**

Reference of applicant	Date of application	File reference	Test report No.	Date of issue	Expiry date
-	01.08.2007	TWR070801	TWR070801 001	28.11.2007	-

This is to certify that the following product complies to all the provisions of the above mentioned European Directive and the following standards::

**Product:** Mini Mixer

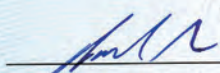
**Type designation:** SP-500A

**Serial No.:** Pre-production sample

**Applicant:** Spar Food Machinery Mfg. Co., Ltd.  
No. 147, 11<sup>th</sup> Industry Rd., Ta-Li City, Taichung, Taiwan

**Standard(s):** EN 55014-1 :2000+A1 :2001+A2 :2002  
EN 61000-3-2 :2006  
EN 61000-3-3 :1995+A1 :2001+A2 :2005  
EN 55014-2 :1997+A1 :2001 (category II)

This Certificate of conformity is based on the evaluation of sample(s) of the above mentioned product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD Group. This is to certify that the tested sample is in compliance with the essential requirements referred to in Annex I of Council Directive 2004/108/EC and demonstrated by means of procedure described in Annex II of Council Directive 2004/108/EC. This certificate can be used by holder in connection with the EC declaration of conformity indicating conformity according to Electromagnetic Compatibility Directive.

  
Competence Centre Certification

**TÜV NORD**  
Tel: +886 4 2202 7929  
Fax: +886 4 2202 7928  
Email: info.pc@tuv-nord.com

**Certificate  
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European Directives**

Registered No.:

**NL11050010**

**Low-Voltage Directive 2006/95/EC**

Reference of applicant	Date of application	File reference	Test report No.	Date of issue	Expiry date
-	26.07.2007	TWR070705	TWR070705 001	27.11.2007	-

This is to certify that the following product complies to all the provisions of the above mentioned European Directive and the following standards:


**Product:** Mini Mixer

**Type designation:** SP-500A

**Applicant:** Spar Food Machinery MFG. Co., Ltd.  
No. 147, 11<sup>th</sup> Industry Rd., Tai Li City, Taichung Hsien, Taiwan, 412

**Standard(s):** EN 60335-2-64: 2000 + A1: 2002 with  
EN 60335-1:2002 + A1:2004 + A2:2006 + A11:2004 + A12:2006  
EN 50366: 2003

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Fax: +886 (4) 2202 7928  
Email: info.pc@tuv-nord.com





**Certificate  
of conformity with the following  
European Directives**

Registered No.:  
**NM11050010**

**Machinery Directive 98/37/EC**

Reference of applicant	Date of application	File reference	Test report No.	Date of issue	Expiry date
-	26.07.2007	TWR070705	TWR070705 002/003/004	11.12.2007	-

This is to certify that the following product complies to all the provisions of the above mentioned European Directive and the following standards:

**Product:** Mini Mixer

**Type designation:** SP-500A

**Applicant:** Spar Food Machinery Mfg. Co., Ltd.  
No. 147, 11<sup>th</sup> Industry Rd., Tai Li City, Taichung Hsien, Taiwan, 412

**Standard(s):** Annex I of Machinery Directive  
EN ISO 12100-1  
EN ISO 12100-2  
prEN 1672-1, EN 1672-2,  
EN 60335-2-64

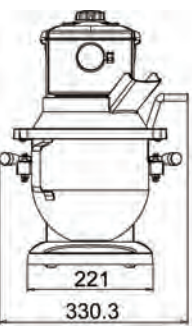
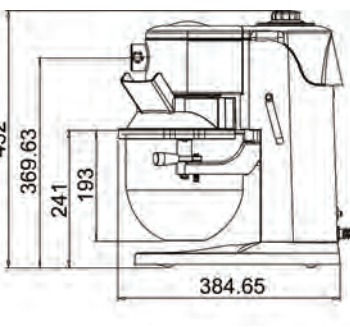
This Certificate of conformity is based on the evaluation of sample(s) of the above mentioned product. It does not imply an assessment of the production and it does not permit the use of a mark of conformity or of a safety mark of the TÜV NORD Group. This is to certify that the tested sample is in compliance with the essential requirements referred to machinery directive 98/37/EC. This certificate can be used by holder in connection with the EC declaration of conformity indicating conformity according to Machinery Directive.

  
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**TÜV NORD**  
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Fax: +886 4 2202 7928  
Email: info.pc@tuv-nord.com

## SP-500A Mini Mixer

SPECIFICATION	
Model	SP-500A
Bowl Size	5 Liters
Motor	750 W
Electrics*	100/120V 50/60Hz 1PH 200/240V 50/60Hz 1PH
Electric Current*	110V/3A 220V/2A
Speeds	(1) 0 stop, 1-3 low speed (2) 4-7 medium speed (3) 7-10 high speed
Speeds-Planetary (rpm)	① 40 ② 70 ③ 90 ④ 106 ⑤ 140 ⑥ 170 ⑦ 190 ⑧ 210 ⑨ 230 ⑩ 260 (rpm)
Hub Attachment	60-308 (rpm)
Noise Value	77.1 dB(A)
Dimensions (cm) (LxWxH)	38 x 31 x 45.5 47 x 37 x 52 carton
Weight	Gross 16 kg Net 15 kg
Standard Equipment	Stainless Steel Bowl, Beater, Whisk, Spiral Hook, Pastry Knife and Bowl Guard.
Bowl Size (cm)	W. 20.2 x H. 19.3 x TH. 0.1
Optional Equipment	Dough Sheeter, Meat Mincer, Vegetable Slicer...

Unit: mm

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

\*Mixer's voltage may be different base on country.

## GUARANTEE

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

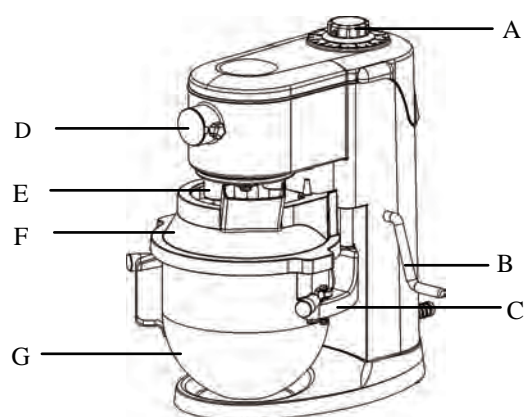
We will replace any defected parts resulted from faulty design, material or workmanship. In addition to this, any repair must be carried out by our authorized Service Agent. All defective parts without no alteration or repair can be returned to SPAR or the nearest authorized representative, postage paid within one year warranty.

SP-500A is a planetary mini mixer designed for commercial use by the professional caterer. It has a total bowl capacity of 5 Liters, combined with 3 mixing tools to ensure that all mixing requirements can be met.

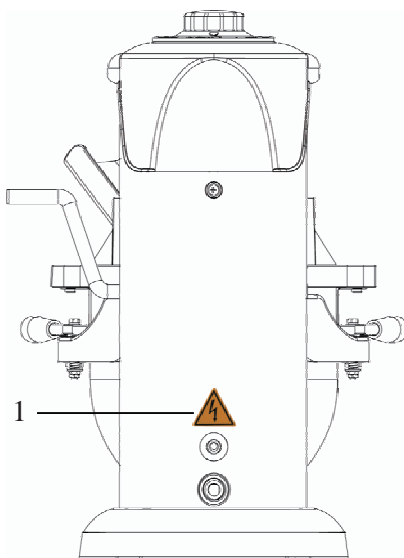
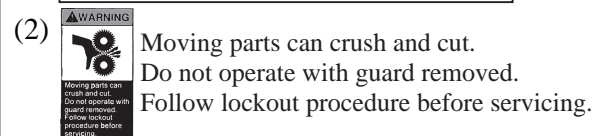
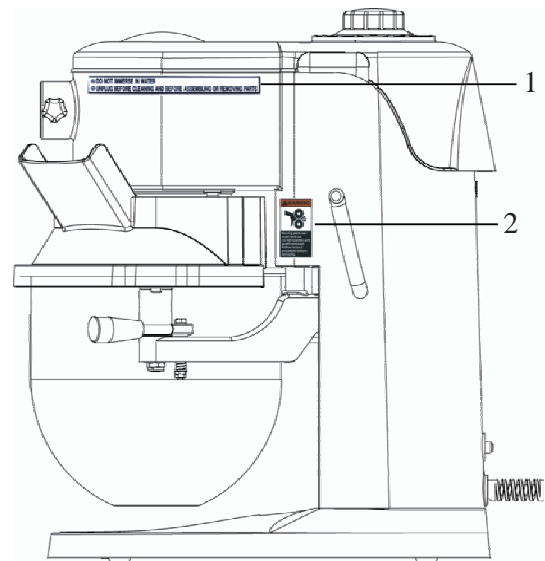
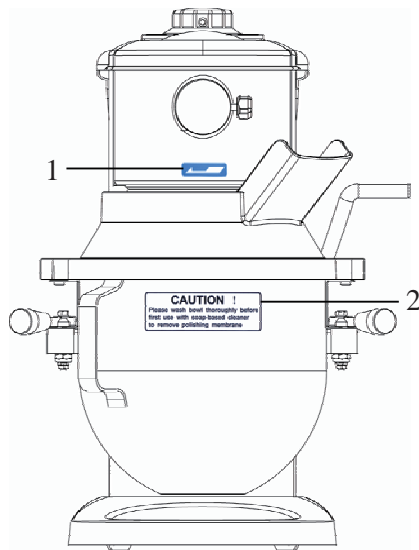
The intended use of mixer is food processing industry, which not including the pharmaceutical industry, chemical industry, printing, etc.

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- (A) On/Off/Speed Selector Button  
 (B) Bowl Lift Handle (E) Planetary Shaft  
 (C) Bowl Cradle (F) Bowl Guard  
 (D) Hub Attachment (G) Stainless Steel Bowl



## **INSTALLATION**

The machine is lubricated and ready to run. It can be positioned on any substantial work surface or bench which is capable of supporting a load of 25kg. For operation stability, please punch four holes on the table and fix SP-500A onto the table by four screws. Please see figure 1.

This machine is 15 kgs. The transportation should require two people. Please see figure 2.

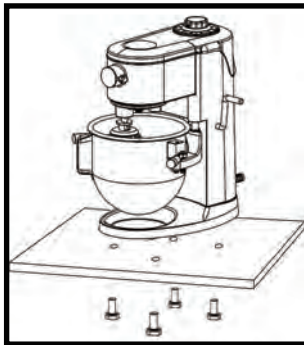


Figure 1

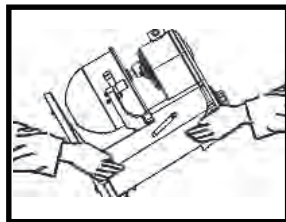


Figure 2

## **ELECTRICAL CONNECTION**

Before connecting this machine to the electrical supply, check that the details on the rating plate (located on the rear of the machine) correspond 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.

If the electrical supply cable to the machine becomes damaged, it must be replaced by a qualified electrician using cable which is 1.0 or higher and suitable for a 750W motor load. The ground wire is fixed to the machine and this connection must be kept intact. This mixer can be stood on a stable, non-resonating working table of a height of between 600 and 900 mm.

- The minimum requirement for all electrical equipment is correct operation between air temperature of +5°C and +40°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 that the bowl guard is in position prior to starting the machine.

## **SAFETY AT WORK**

Never place your hand or any kitchen utensil in the bowl when the mixer is in operation. Isolate the machine from the electrical supply by removing the plug from the socket before cleaning or dismantling.

Do not use the machine with any cover or guard removed.

Certain operator notice advising about the safe use of this mixer is attached to the machine.

## **OFFICE, SHOPS AND RAILWAY PREMISES ACT**

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.

## **MOTOR OVERHEATING PROTECTION**

The Motor Overheating Protection will shut off and stop the machine automatically to protect motor. If this occurs, please turn the ON/OFF speed selector button to 0-OFF position and reduce the size of batch. After waiting 10~15 minutes, please start the machine again.



## **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 this handbook 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 SPAR warranty.

For operator safety, please turn the speed selector to the OFF position before install mixing tools, fixing or moving bowl cradle. Furthermore, the machine is fitted with a bowl guard which is electrically interlocker 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 bolt release feature which means that in the event of a power failure, the machine will only restart after the ON/OFF Speed Selector Button has been regressed. This arrangement ensures that when the power 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.
- Using temporary bowl covers to minimize openings through which flour may escape.

## **THERMAL OVERLOAD PROTECTION (Automatically Reset)**

The thermal overload protection (circuit breaker) will shut off and stop the machine automatically. If this occurs, please turn the ON/OFF speed selector button to 0-OFF position and reduce the size of batch. After waiting 1-2 minutes machine shut off, turn the ON/OFF speed selector or button to ON position. The thermal overload protection is an automatic reset device. The circuit breaker may be different base on mixer's voltage. \*Figure 3 shows the position of 110V(3A) circuit breaker. Figure 4 shows the position of 220V (2A) circuit breaker.



Figure 3

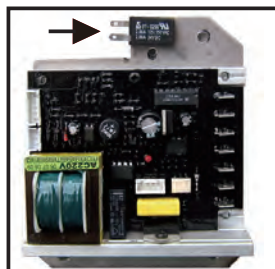


Figure 4

\* 110V(3A) circuit breaker must be manually reseted.



**Note: Once the circuit breaker over loaded and shut off the machine happen frequently; please replace the circuit breaker.**

## **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 locational points for the bowl:

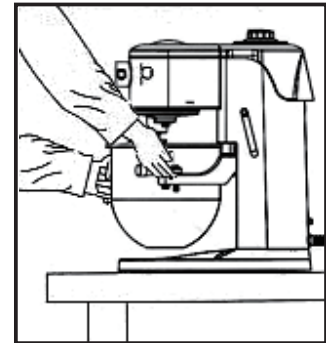


Figure 5

- (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.

Please ensure that the bowl is seated correctly on the cradle before securing the bowl locking latches prior to use.

## **BOWL LIFT & BOWL GUARD**

The bowl cradle and bowl guard are electrically interlocked so that the machine will only operate with the bowl cradle in the raised position. Please see figure 6.

In addition to this, the bowl guard must be placed into position by aligning its two pins into the two small holes on the both side of the bowl. Only once the bowl is raised and the bowl guard locks, the machine can operate. Thus this ensures complete operator safety at all times.

For start mixing, raising the bowl lift handle in 180° anti-clockwise direction to the top. Once mixing is finished, turn off the machine and lower down the bowl handle in clockwise direction. During the mixing process, additional ingredients can be added by the chute located on the right hand side of the bowl guard.

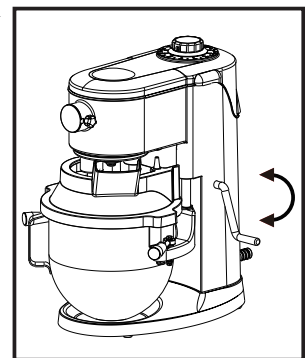


Figure 6



## 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 7.

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

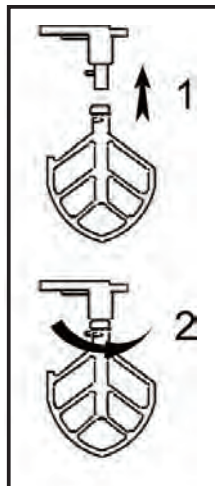


Figure 7

## 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 of the tools.

**! Note:** Stop the machine before install or dismantle mixing tools.





	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

## SPEED SELECTION

To start the mixer, please turn the selector button in a clockwise direction starting from 1. The speed selected depends largely on the quantity and consistency of the product. It is recommended that mixing should always be started at the lowest speed and progressively increased to the desired setting. Turn the selector button clockwise to increase the speed, anti-clockwise to decrease it. To stop the mixer, please turn the selector button back to OFF. Table 2 shows the recommended speeds for the range of tools.







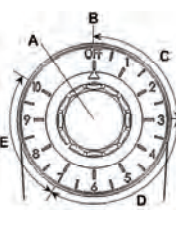
	1	2	3	4	5	6	7	8	9	10
										▶
		▶								
							▶			
	40									260
	60									308

Table 2

**! Note:** Do not force the button min. – max. stops as this may damage the potentiometer and IC Board.

**! Note:** The airborne sound pressure level during operation is 77.1 dB(A).

## CONTROLS

	<p>A: Speed Selector Button            B: Position 0: OFF            C: Position 1-3: Low speed (Spiral Hook)            D: Position 4-7: Medium speed (Beater)            E: Position 7-10: High speed (Whip)</p>
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## OPTIONAL ACCESSORIES

This mixer can be equipped with a variable speed power take-off to drive the following optional accessories: dough sheeter, meat mincer, vegetable slicer...etc.

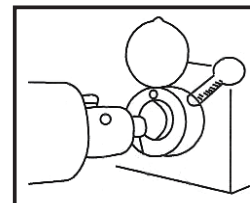


Figure 8

**! Note:** These optional accessories are intended for ancillary work and not for industrial quantities. Intensive use and use which strains the beater will damage it.

**! Note:** The machine must be stopped before fitting or removing accessories.

## 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 (kg)	Whip	Beater	Spiral Hook
Meringues	10 egg whites	*		
Genoese Sponge Cakes	12 egg whites	*		
Stiffly Beaten Egg Whites	12 egg whites	*		
Chantilly Cream	1L liquid cream	*		
Chocolate Mousse	500g powder	*		
Pancake Mix	1.5L milk	*		
Confectioner's Pastry Cream	1kg powder		*	
Choux Pastry	600g flour		*	*
Shortcrust Pastry	750g flour		*	
Sweet Pastry	750g flour		*	*
Croissants	750g flour			*
Brioche	750g flour			*
Bread Dough (40% Moisture)	400g flour			*
Bread Dough (50% Moisture)	500g flour			*
Bread Dough (60% Moisture)	750g flour			*
Pizza	400g flour			*
1kg stuffing				*
1kg sausage meat				*
1kg dough				*
(A) Recommended weight for a finished mix unless otherwise stated.				
(B) Water content e.g. 250g water/500g flour = 50% moisture.				
(C) For pizza dough with lower moisture content, please consult SPAR				
(D) For higher gluten flour reduce dough batch by 25%.				



**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.

## CARE OF YOUR MIXER

The mixer is designed for simple maintenance carried out by operators. It may be necessary from time to time to apply a little Vaseline and 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 the accumulation of mix, as this could prevent correct 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 condition. It is strongly recommended that this must be carried out by trained technicians from a SPAR appointed distributor.

### ON A REGULAR BASIS

Clean the machine thoroughly after use and lubricate the rods with Vaseline or lubrication oil which the bowl cradle slides. After clean the beater shaft, please wipe and lightly lubricate the beater shaft with Vaseline to prevent rusting. (SEE CARE ON YOUR MIXER)

### ON AN ANNUAL BASIS

Check that all bolts are tight and bowl guard secure.

FAULT FINDING		
FAULT	CHECK	POSSIBLE REASON AND ACTION REQUIRED
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 Motor overheating	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 Please reduce load and wait 10-15mins for cooling down
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 Motor overheating	Overloading of bowl – reduce load Please reduce load and wait 10-15mins for cooling down
Motor overheating	Check supply voltage Check capacity	Voltage should correspond to rating plate Overloading of bowl – reduce load
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.

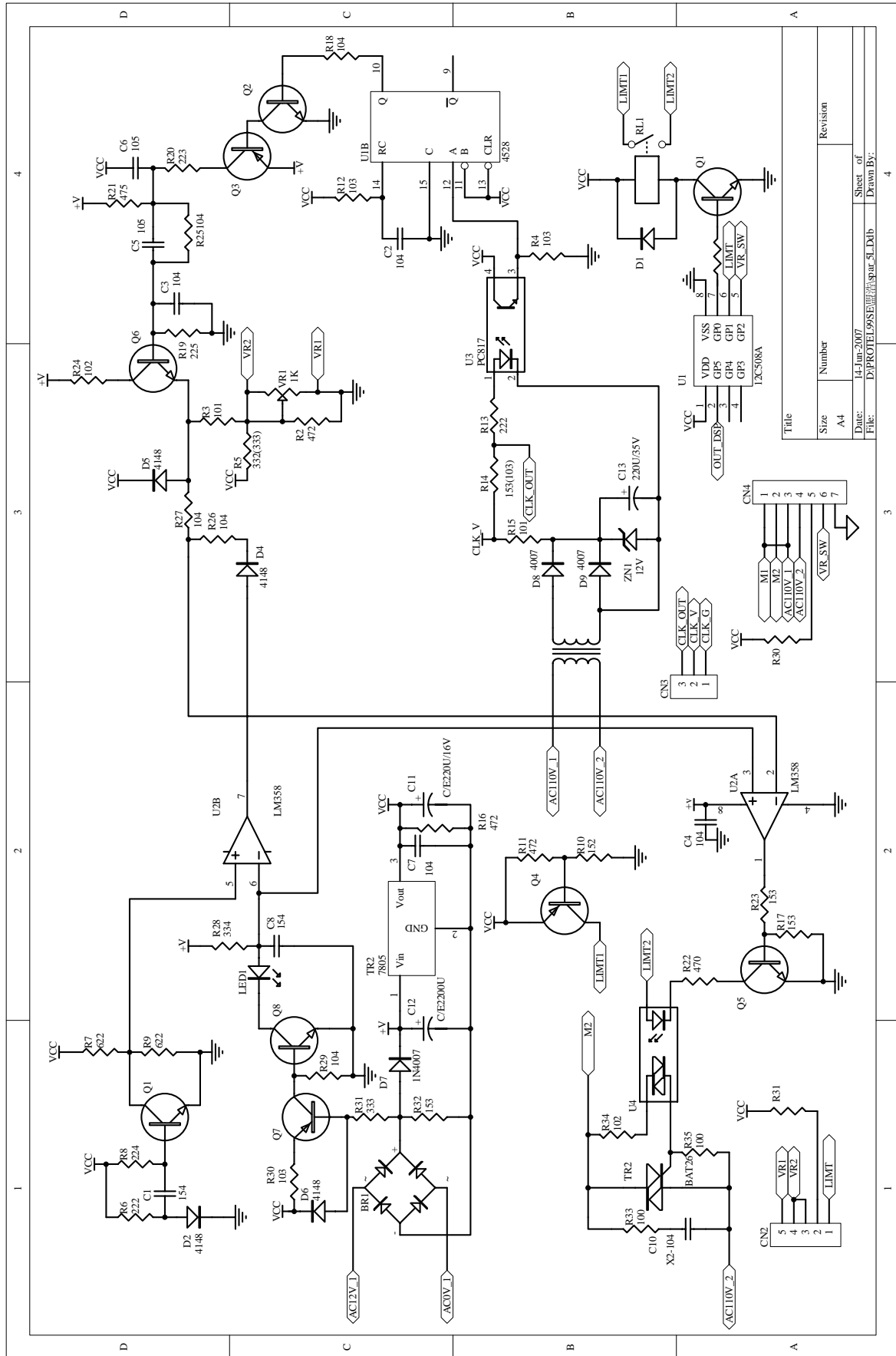
▲ Isolate the mixer from the electricity supply by removing the plug from the socket before cleaning or servicing.

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

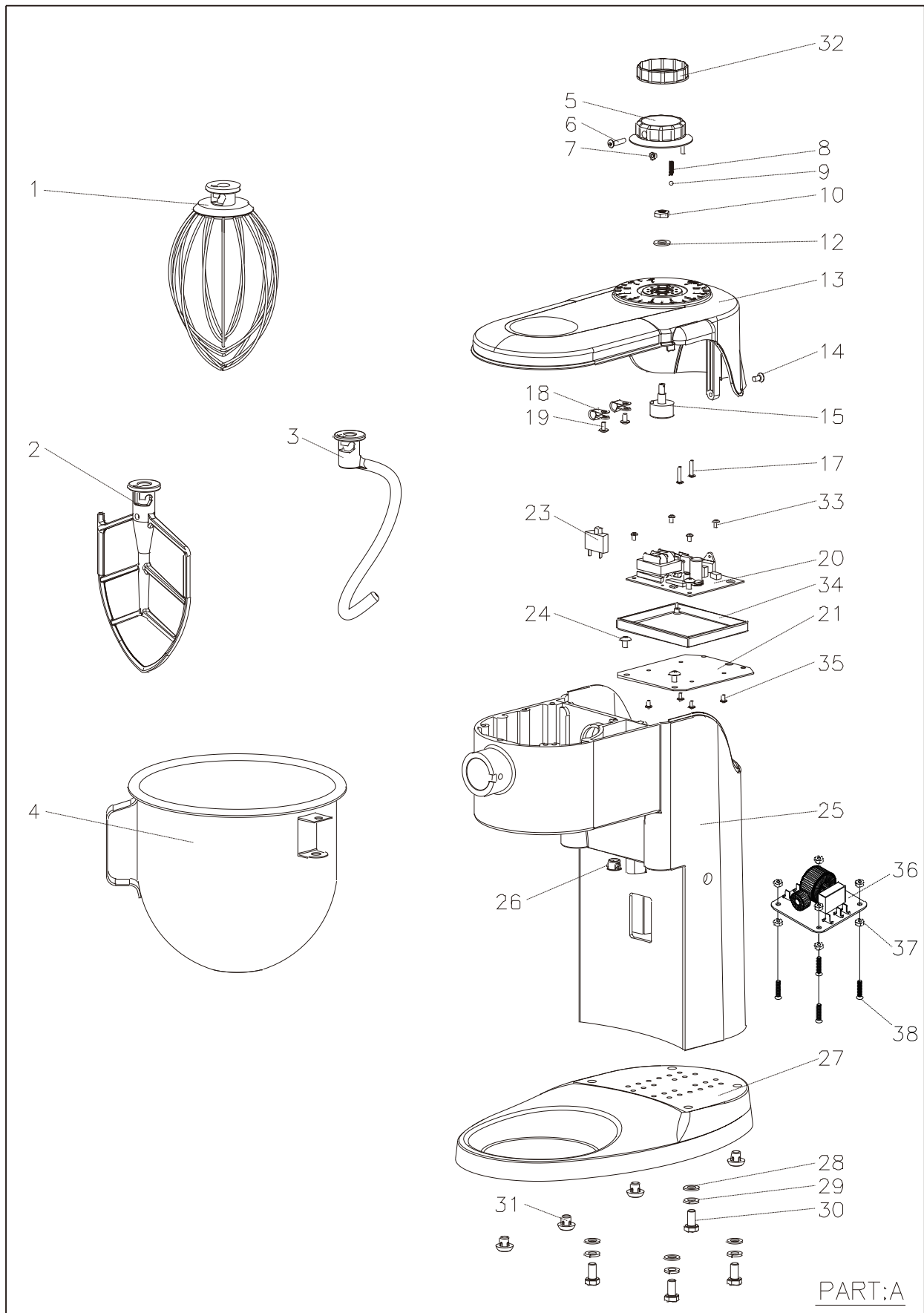


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\*Circuit Breaker may be different base on mixer's voltage.



**SP-500A Exploded View Drawing**





### Parts Table A

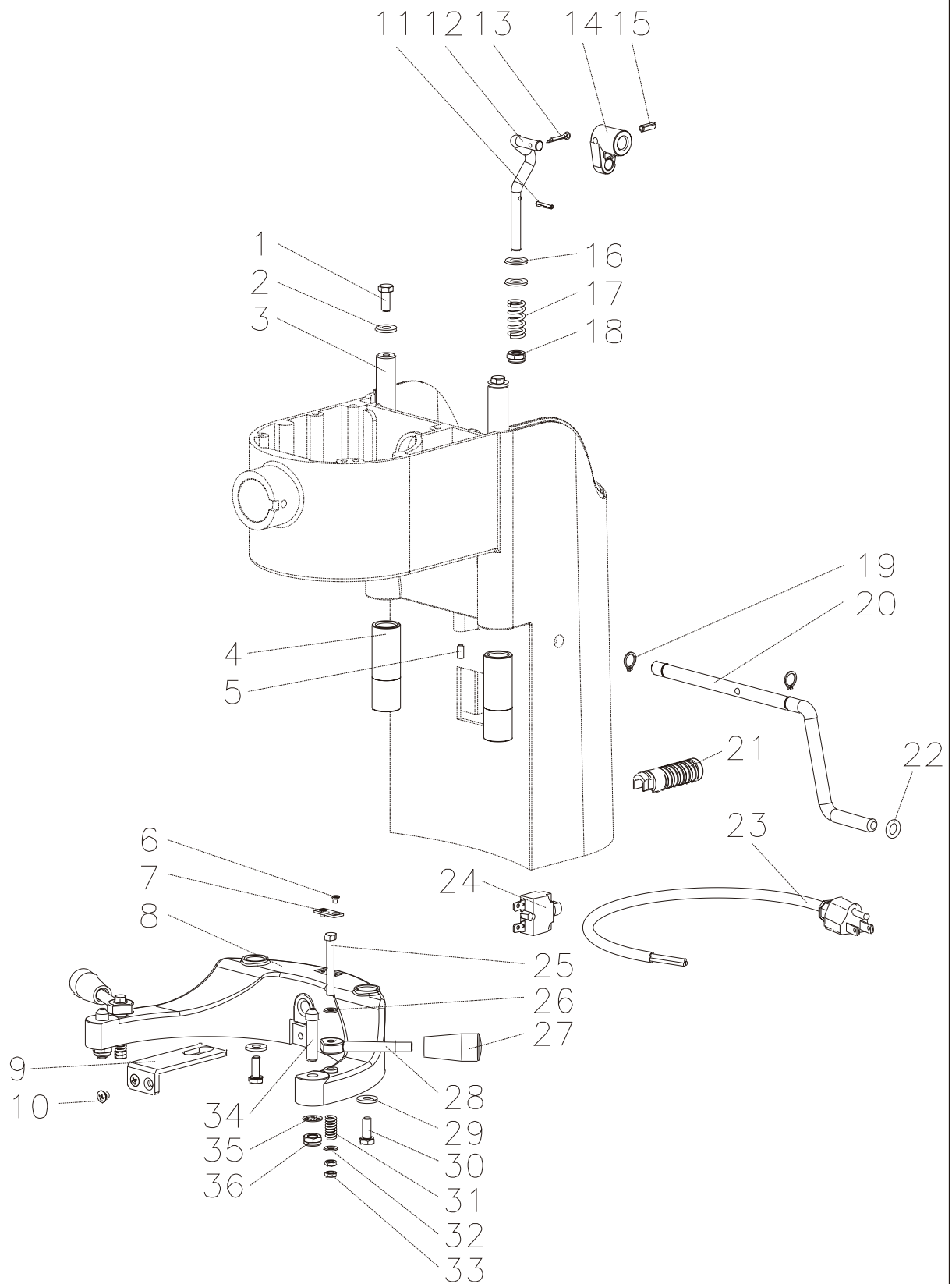
Item	Parts No.	QTY	Description	Item	Parts No.	QTY	Description
1	5A01	1	Whip	21	5A2 1	1	Board Attachment
2	5A02	1	Beater	22	***	***	***
3	5A03	1	Spiral Hook	23	5A2 3	1	Circuit Breaker (2A) *
4	5A04	1	Bowl - 5 Liters	24	5A2 4	2	Screw (M5)
5	5A05	1	On / Off / Speed Selector	25	5A2 5	1	Main Body
6	5A06	1	Screw (M4)	26	5A2 6	1	Plastic Plug **
7	5A07	1	Nut (M4)	27	5A2 7	1	Base
8	5A08	1	Spring	28	5A2 8	4	Washer (M8)
9	5A09	1	Steel Ball ( $\phi$ 4)	29	5A2 9	4	Spring Washer (M8)
10	5A10	1	Nut (M8)	30	5A30	4	Screw (M8)
11	***	***	***	31	UH-1260	4	Rubber Pad
12	5A12	1	Washer (M8)	32	5A32	1	Rubber Ring
13	5A13	1	Top Cover	33	5A33	4	Screw (M3)
14	5A14	1	Screw (M5)	34	5A34	1	Plastic Box (For IC Board)
15	5A1 5	1	VR Speed Switch	35	5A35	4	Screw (M4)
16	***	***	***	36	5A36	1	L-C Impedance ****
17	5A17	2	Screw (M3)	37	5A37	8	Nut (M4) ****
18	5A18	2	Wires Fixed Sets	38	5A38	4	Screw (M4) ****
19	5A19	2	Screw $\phi$ 3				
20	5A20	1	IC Control Board				

\* Parts No. 5A23 Circuit Breaker (220V/2A) only exists in the mixer whose voltage is 220V.

\*\* Parts No. 5A26 Plastic Plug only exists in SP-500 Model.

\*\*\* Parts are not used any more.

\*\*\*\* Parts No. 5A36, No. 5A37, No. 5A38 only exists in SP-500A model.



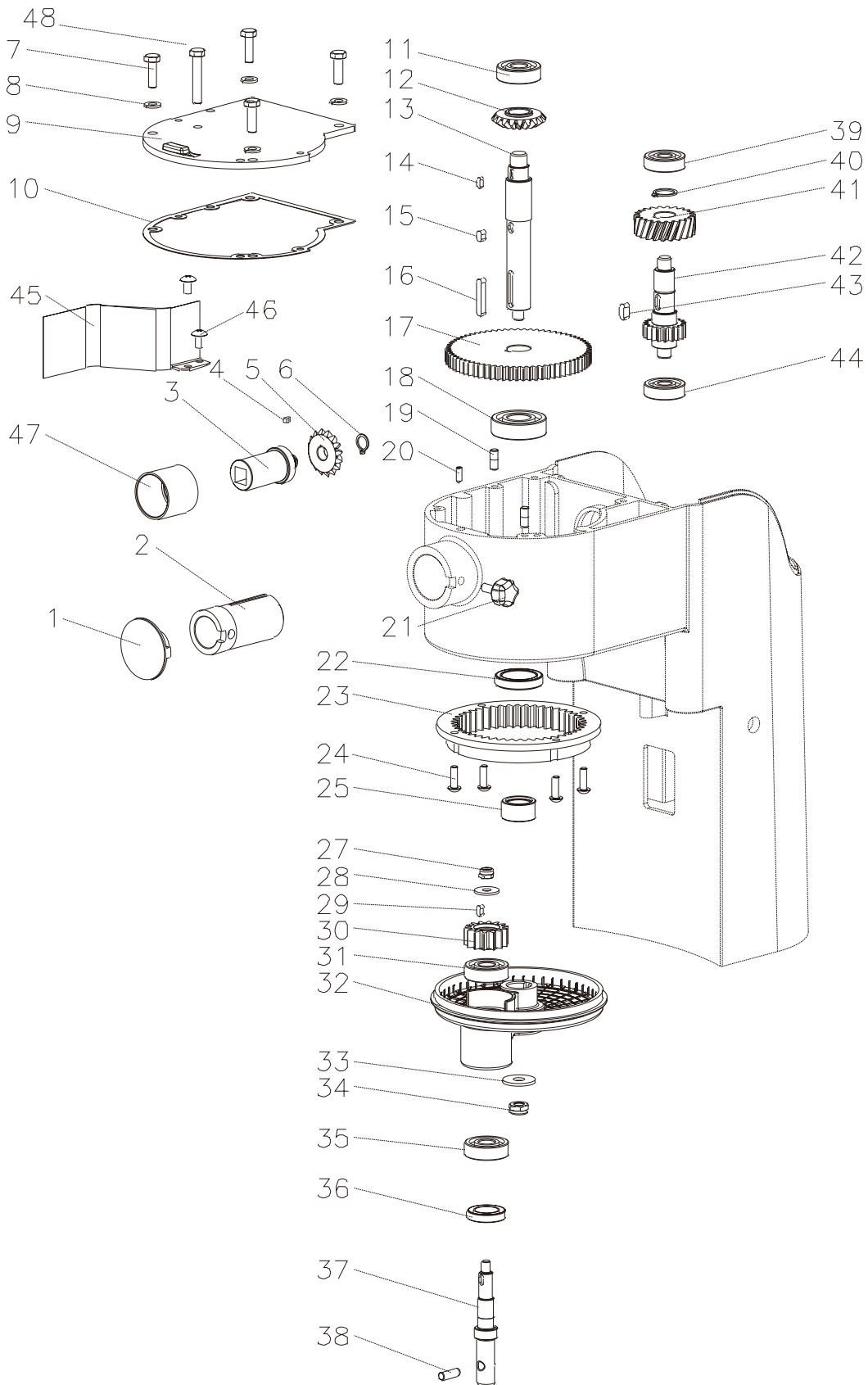
PART:B

# **Parts Table B**

Item	Part No.	QTY	Description	Item	Part No.	QTY	Description
1	5B01	2	Screw (M6)	26	5B26	2	Washer (M5)
2	5B02	2	Washer (M6)	27	RC033-1	2	Plastic Knob
3	5B03	2	Bowl Lift Shaft	28	800089	2	Bowl Latch
4	5B04	2	Bushing	29	5B29	2	Washer (M6)
5	5B05	1	Screw (M5)	30	5B30	2	Screw (M6)
6	5B06	2	Screw (M3)	31	5B31	2	Spring
7	5B07	1	Pad	32	5B32	2	Washer (M5)
8	5B08	1	Bowl Cradle	33	5B33	4	Nut (M5)
9	5B09	1	Bowl Lift Bracket	34	5B34	2	Ping - Bowl Retaingin
10	5B10	2	Screw (M5)	35	5B35	2	O-ring
11	5B11	1	Pin $\phi$ 3	36	5B36	2	Nut (M8)
12	5B12	1	Rod - Bowl Lift				
13	5B13	1	Pin				
14	5B14	1	Arm - Bowl Lift				
15	5B15	1	Pin ( $\phi$ 4)				
16	5B16	2	Washer (M8)				
17	800072	1	Spring				
18	5B18	1	Nut (M8)				
19	5B19	2	Ring (STW -12)				
20	5B20	1	Handle - Bowl Lift				
21	5B21	1	Strain Relief				
22	5B22	1	Rubber Ring				
23	5B23	1	Power Cord and Plug				
24	5B24	1	Circuit Breaker (3A) *				
25	5B25	2	Screw (M5)				

**\*Parts No. 5B24 Circuit Breaker (110V/3A) only exists in the mixer whose voltage is 110V.**

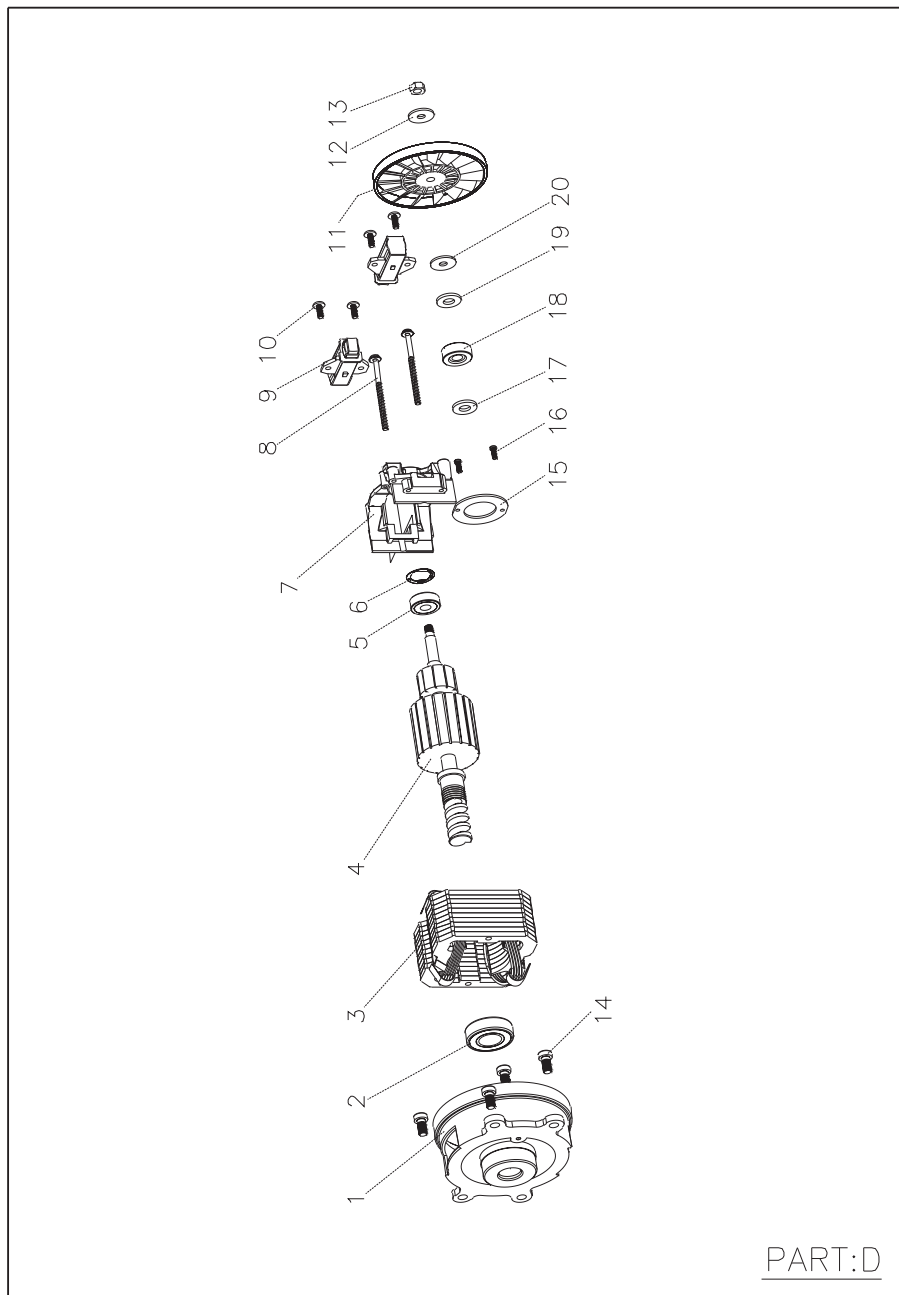




PART:C

**Parts Table C**

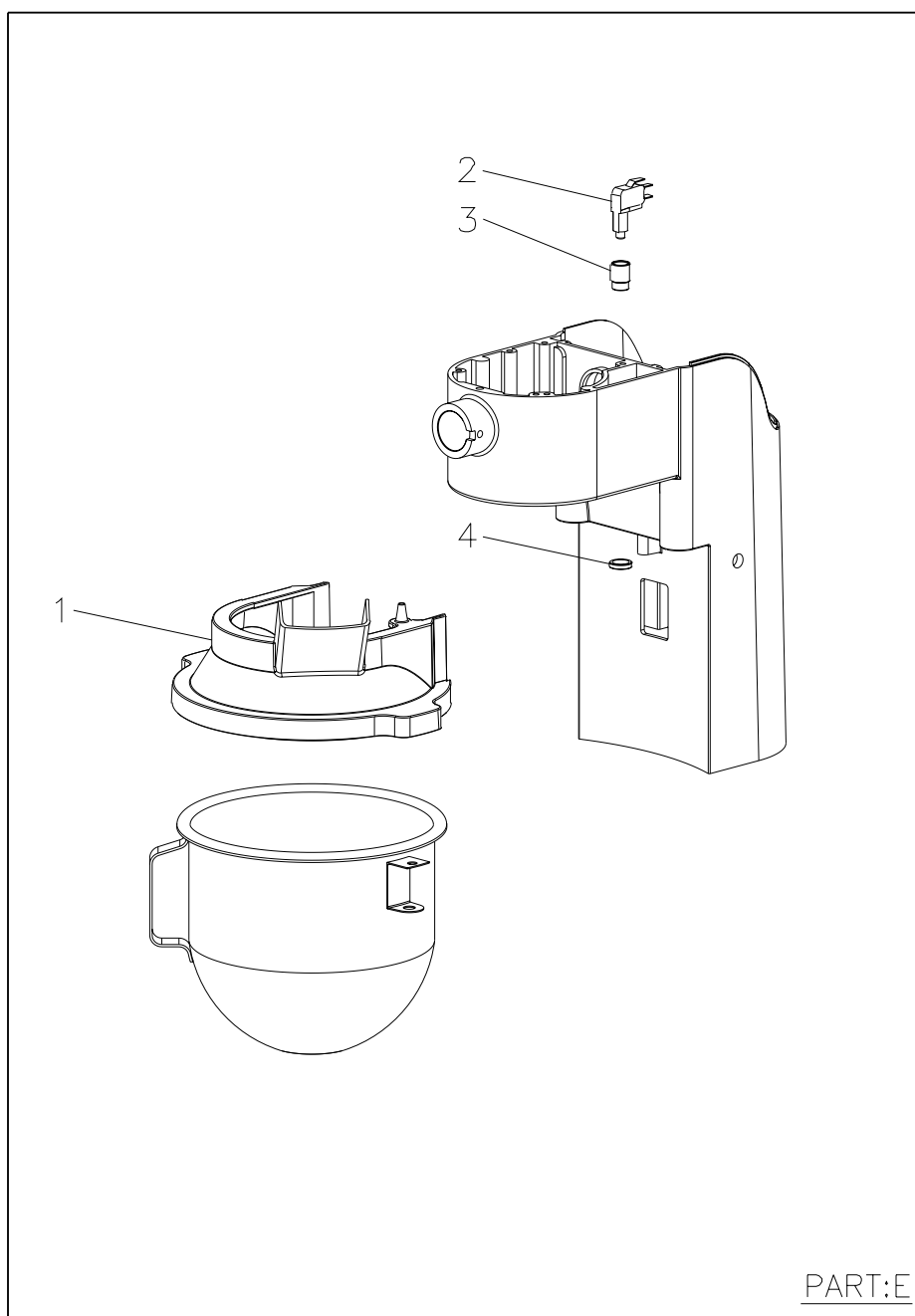
Item	Part No.	QTY	Description	Item	Part No.	QTY	Description
1	5C01	1	Plug Attachment	25	800117	1	Oil-seal Bushing
2	5C02	1	Hub Attachment	26	***	***	***
3	5C03	1	Shaft -Bevel Gear	27	5C27	1	Nut (M6)
4	5C04	1	Key-way (3x3x6)	28	5C28	1	Washer (M6)
5	5C05	1	Bevel Gear (16T)	29	5C29	1	Key-way (4x4x8)
6	5C06	1	Ring (STW -10)	30	5C30	1	Pinion -beater (14T)
7	5C07	5	Screw (M6)	31	5C31	1	Ball Bearing (6200LLUCM)
8	5C08	4	Spring Washer (M6)	32	5C32	1	Planetary Holder
9	5C09	1	Transmission Case Cover	33	5C33	1	Washer (M8)
10	5C10	1	Oil-seal Pad	34	5C34	1	Nut (M8)
11	5C11	1	Ball Bearing (6201ZZ)	35	5C35	1	Ball Bearing (6201ZZ)
12	5C12	1	Bevel Gear (19T)	36	5C36	1	Oil seal (TC:28x17x6)
13	5C13	1	Drive Shaft	37	5C37	1	Planetary Shaft
14	5C14	1	Key-way (3x3x8)	38	800037	1	Pin( $\phi$ 6)
15	5C15	1	Key-way (5x5x8)	39	5C39	1	Ball Bearing (6200LLUCM)
16	5C16	1	Key-way (5x5x28)	40	5C40	1	Ring (STW -15)
17	5C17	1	Gear (68T)	41	5C41	1	Bevel Gear (16T)
18	5C18	1	Ball Bearing (6203LLUCM)	42	5C42	1	Transmission Shaft (20T)
19	200074-1	2	Screw ( M6)	43	5C43	1	Key-way (5x5x12)
20	5C20	1	Screw (M4)	44	5C44	1	Ball Bearing (6200CM)
21	5C21	1	Screw (M6)	45	5C45	1	Disconnect Plate
22	5C22	1	Oil-seal (TC: 26x35x7)	46	5C46	2	Screw (M5)
23	5C23	1	Planetary Internal Gear (47T)	47	5C47	1	Anti-Oil Bush
24	5C24	4	Screw (M5)	48	5C48	1	Screw (M6)



**Parts Table D**

Item	Part No.	QTY	Description	Item	Part No.	QTY	Description
1	5D01	1	Motor Front Cover	11	5D11	1	Fan
2	5D02	1	Ball Bearing (6003ZZ)	12	5D12	1	Washer (M6)
3	5D03	1	Motor Coil	13	5D13	1	Nut (M6)
4	5D04	1	Motor Axle	14	5D14	4	Screw (M6)
5	5D05	1	Ball Bearing (608ZZ)	15	5D15	1	Tachometer
6	5D06	1	Spacer	16	5D16	2	Screw (M3)
7	5D07	1	Motor Back Cover	17	5D17	1	Washer (M8)
8	5D08	2	Screw (M4)	18	5D18	1	Magnet
9	5D09	2	Carbon Brush	19	5D19	1	Washer (M8)
10	5D10	4	Screw (M4)	20	5D20	1	Washer (M6)





PART:E

**Parts Table E**

Item	Part No.	QTY	Description
1	5E01	1	Bowl Guard *
	5E01 -1	1	Bowl Guard **
2	5E02	1	Microswitch ***
3	5E03	1	Tube ***
4	5E04	1	Nut ***

\* Part No. 5E01 is only suitable for SP-500A Model.

\*\* Part No. 5E01-1 is an optional accessory which is only suitable for SP-500 Model.

\*\*\* Part No. 5E02, 5E03 and 5E04 only exist in SP-500A Model.

# SPAR MIXERS

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## HISTORY

SPAR Food Machinery Mfg. Co. Ltd. was established in 1980 with the goal of producing top of the line multi-functional planetary mixers. SPAR began by supplying the demands of the local bakery market in Taiwan. After establishing the SPAR brand as the leading planetary mixer in Taiwan, SPAR began to expand into other markets. Now SPAR supplies mixers to over 50 countries in six continents, SPAR is a truly global competitor. SPAR has become such a success because it has always remained true to its core principles, such as dependability, value, innovation, and service.

## FACILITIES

SPAR has a new state of the art production facility. This facility has been designed to optimize production schedules, thus cutting delivery times to customers. Also, integrated into this production facility is a modern paint baking facility. This helps SPAR achieve a high quality finish as well as meet today's demanding sanitary standards. SPAR is the only mixer manufacturer in Taiwan to have its own baked paint facility. SPAR also has a second manufacturing plant which specializes in the production of heavy duty mixers.

## QUALITY CONTROL

SPAR uses state of the art CNC machines to cut all body castings and mill all gears and shafts. Samples from each batch are evaluated to exacting standards by a computerized Italian MPM 3-dimensional analyzer.

## FEATURES

- ♣ heat treated hardened steel alloy gears, 25% thicker than industry's leader
- ♣ abrasion resistant transmission design
- ♣ efficient, custom made, powerful motor
- ♣ high torque transmission for heavy loads
- ♣ long lasting lubricant quiet operation
- ♣ overload protection
- ♣ simple maintenance
- ♣ front mounted controls for easy access and operation
- ♣ unprecedented 3 year transmission warranty (available only in the US and Canada) on most models, see warranty for details
- ♣ molded, heavy – duty, quick-release plastic safety guard with ingredient chute and micro switch