



Serial #: \_\_\_\_\_

# SPAR FOOD MACHINERY MFG, CO., LTD.

## Instruction Manual for SP-800A Tabletop Mixer



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# CAUTION

## Read before you operate the machine

It is important to read this manual and follow the instructions before operate this machine. This machine is designed as a safe and efficient food processing machine as long as the machine is used in accordance with the instructions in this manual and is properly maintained.

User has taken following precautions in order to operate the mixer safely.

- **All operators should be at least 18 years old and are adequately trained and supervised. Also, all operators must have fully read and understood this manual.**
- **Owner should not let customer, visitor or other unauthorized people come in contact with this machine.**
- **Do not wear loose clothes or ring while operating the mixer. Please do keep hands, hair and clothing away the moving parts.**
- **NEVER use an extension cord to connect electrical power.**
- **Make sure the safety guard is installed and bowl is lifted to right position before operating.**
- **NEVER reach into the bowl when the mixer is running.**
- **NEVER place your hand or any kitchen utensil in the bowl whilst the mixer is in operation.**
- **When mixing product always follow the recommends agitator and speed setting according to the capacity chart.**
- **Always UNPLUG before cleaning or doing any maintenances.**
- **DO NOT hose down or pressure wash any part of the mixer.**
- **NEVER bypass, alter or modify this machine. Doing so may create hazard and will void warranty.**

**If you have any questions, please contact any local representative or SPAR directly.**

## Overall View of the Mixer



(A) Control Panel with Timer

(B) Planetary Shaft

(C) Plastic Safety Cover

(D) Stainless Steel Bowl

(E) Bowl Weld Clip

(F) Bowl Cradle

(G) Bowl Lift Arm

(H) Speed Selector

### SPECIFICATION

<b>Model</b>	SP-800A	<b>Speeds**</b>	(1) 1 <sup>st</sup> Speed 132 rpm (2) 2 <sup>nd</sup> Speed 234 rpm (3) 3 <sup>rd</sup> Speed 421 rpm
<b>Bowl Size</b>	8 Liter	<b>Dimensions (LxWxH)</b>	40 x 30 x 58 cm (Net) 47 x 36 x 66 cm (Carton Box)
<b>Motor</b>	1/4 HP	<b>Weight</b>	Gross 27 kg Net 25 kg
<b>Electrics*</b>	110V-60HZ-1PH 220V~240V-50HZ-1PH	<b>Standard Accessory</b>	Stainless Steel Bowl, Beater, Whisk, Spiral Dough Hook, Pastry Knife and Safety Guard
<b>Electric Current*</b>	110V/6A 220V~240V/5A		

\* Voltage and Specification is different subject to each country.

\*\* Speeds are different subject to each country.

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

# Installation Instructions

## 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.

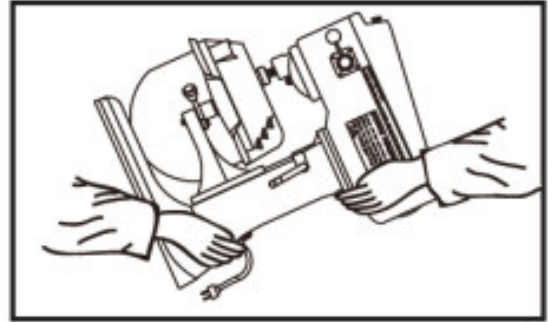


Figure 1

## 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.**

**CAUTION: The mixer MUST be grounded.**

# Operating Instructions

## 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.

# Operating Instructions

## 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 SPAR 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.

## 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.**

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

**Table 1**

## BOWL LIFT & BOWL GUARD

The BOWL CRADLE and BOWL GUARD are electrically interlocked. 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 mark **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 bowl guard is fitted, the machine can be operated. This safety function ensures total user safety at all times. Once the bowl guard has been opened or the bowl lowered, the machine will be shut off immediately.

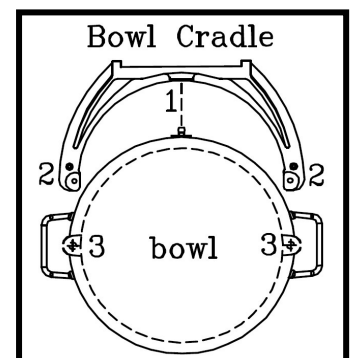
During the mixing process additional ingredients can be added by means of the chute located on the right hand side of the bowl guard.

## 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:

- (1) The locking pin at the rear of the bowl should locate in the hole of the cradle.
- (2) The two holes in the bowl handles must engage on the pins located on the cradle.
- (3) Latching the bowl locking.

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



**Figure 2**

# Operating Instructions

## FITTING THE MIXING TOOL

Slide the bayonet fitting of the tool onto the **PLANETARY SHAFT** and twist clockwise to secure it in position.

To remove the mixing tool, slides the tool up the **PLANETARY SHAFT** slightly and twist counter clockwise. Please see figure 3.



Figure 3

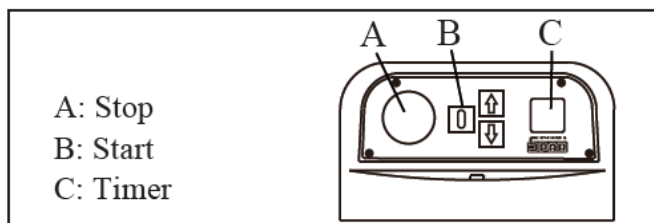
⚠ Note: After cleaning, please wipe the shaft with Vaseline or oil for better lubrication and preventing rust.

## CONTROLS

The control panel is shown at right. Please make sure the **TIMER** shows any number more than 1 any time. 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 to 15 minutes for timing operation



A: Stop  
B: Start  
C: Timer

## CAPACITY

**Please refer to Page 8.** The 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.

## 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

## Operating Instructions

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



Figure 4

## Cleaning Instructions

### 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.**

## Maintenance

### 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 SPAR 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 SPAR 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 SPAR appointed distributor.

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



## Limited Warranty

### **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.

SPAR 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 SPAR or the nearest authorized representative, postage paid within one year warranty.

Accessory, like Bowl, Dough Hook, Beater and Wire Whip might not be cover by warranty if the operator does not use them correctly. For example, using Whip to mix Dough is prohibited.

## Troubleshooting

### 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 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 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.

## Capacity Chart Table

Product	Agitator and Speed	SP-800A
Waffle or Hot Cake Batter	Beater	3 ltrs.
Whipped Cream	Whip	2 ltrs.
Mashed Potatoes	Beater	1.8 kg.
Egg Whites	Whip	0.35 ltr.
Meringue (Qty of Water)	Whip	0.24 ltr.
Raised Donut Dough (65% AR) * ◆	Hook 1 <sup>st</sup> & 2 <sup>nd</sup> Speed	1 kg.
Heavy Bread Dough (55% AR) * • ◆	Hook 1 <sup>st</sup> Speed only	1.25 kg.
Bread and Roll Dough (60% AR) * • ◆	Hook 1 <sup>st</sup> Speed only	1.5 kg
Pizza Dough, Thin (40% AR) * • △ ◆ □	Hook 1 <sup>st</sup> Speed only	1 kg.
Pizza Dough, Medium (50% AR) * • ◆ □	Hook 1 <sup>st</sup> Speed only	1.25 kg.
Pizza Dough, Thick (60% AR) * • ◆	Hook 1 <sup>st</sup> Speed only	1.35 kg.
Fondant Icing	Beater	1.3 kg.
Cake	Beater	2.7 kg.
Pie Dough	Beater	1.8 kg.
Pasta, Basic Egg Noodle	Hook	900 g

\* NOTE: The mixer capacity depends on the moisture content of the dough. When mixing dough (pizza, bread, or bagel) check your AR%! %AR (% Absorption Ratio) = Water weight divided by flour weight.

**For higher gluten flour reduce dough batch by 25%.**

\* Maximum Mixing Time - 7 Minutes

• If high gluten flour is used, reduce the batch size by 10%.

◆ If using chilled flour, water below 70°F, or ice, reduce batch size by 10%.

□ 2nd speed should never be used on 50% AR or lower.



# 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
- ★ Molded, heavy – duty, quick-release plastic safety guard with ingredient chute and micro switch