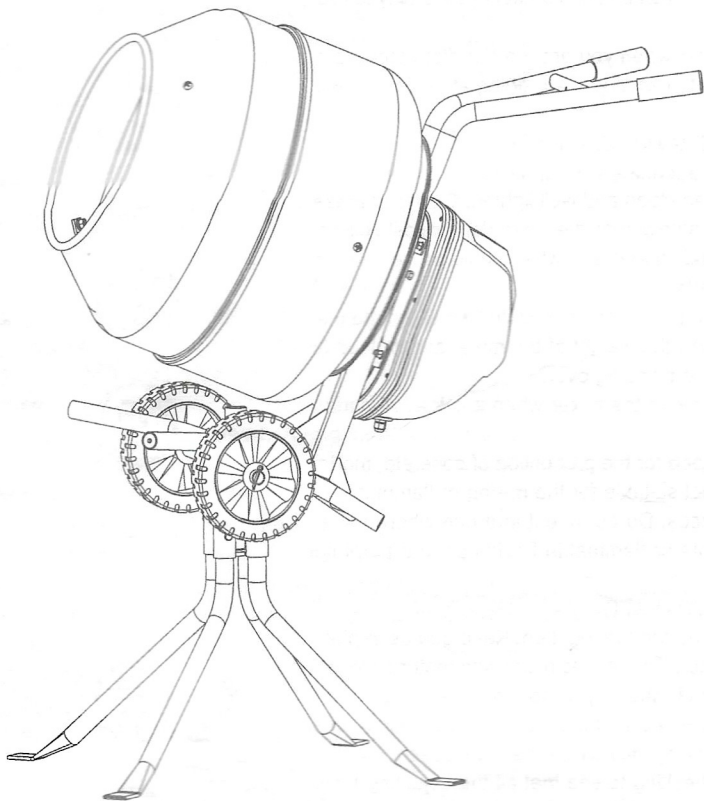


# **EXCEL**

# **650W**

## **OPERATING INSTRUCTIONS**

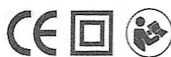


**240V: 122235**

# **160L**

# **PORTABLE CEMENT MIXER**

Danger! Read all safety regulations and instructions.  
Keep all safety regulations and instructions in a safe place for future use.



**EXCELTOOLS.CO.UK**

### ● UNDERSTAND YOUR MIXER

Read and understand the owner's manual and labels affixed to the mixer. Learn its application and limitations as well as the specific potential hazards peculiar to it.

Become familiar with the controls before operating this mixer.

### ● STAY ALERT

Do not operate the mixer while under the influence of drugs, alcohol, or any medication that could affect your ability to use it properly.

Do not use this mixer when you are tired or distracted from the job at hand. Watch what you are doing at all times. Use common sense.

### ● AVOID DANGEROUS CONDITIONS

Make sure there is adequate surrounding workspace. Keep your work area clean and well lighted. Cluttered areas invite injuries. Keep area around the mixer clear of obstructions, grease, oil, trash and other debris which could cause persons fall onto moving parts.

Only use or operate the mixer on solid, flat, level ground that is capable to support the weight of the mixer and its load to prevent the mixer from tipping over.

Do not attempt to move the mixer when it is loaded and/or in operation.

This mixer is intended for the production of concrete, mortar and plaster. It is not suitable for the mixing of flammable or explosive substances. Do not use it in areas where fumes from paint, solvents or flammable liquids pose a potential hazard.

### ● INSPECT YOUR MIXER

Check your mixer before turning it on. Keep guards in place and in working order. Do not plug mixer with motor cover off. Check all bolts, nuts, and screws for tightness before each use, especially those securing guards and drive mechanisms. Vibration during mixing may cause these to loosen.

Form a habit of checking to see that all the adjusting tools, shovels, hand trowels and other tools/equipments are removed from mixer area before turning it on.

Replace damaged, missing or failed parts before using it. Warning labels carry important information. Replace any missing or damaged warning labels.

### ● RECYCLING AND DISPOSAL

This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or check with your local authority or local stores for advice of environmental safe recycling.



### ● DRESS PROPERLY

Do not wear loose clothing, gloves, neckties or jewelry (rings, wrist watches). They can be caught in moving parts. Protective electrically non-conductive gloves and non-skid footwear are recommended when working. Wear protective hair covering to contain long hair, preventing it from getting caught in machinery. Wear a face or dust mask if the operation is dusty. Always wear safety goggles and/or face shields. Everyday eyeglasses have only impact resistant lenses. They are not safety glasses.

### ● DO NOT ABUSE CORD

Never carry mixer by cord or yank it to disconnect it from socket. Keep cord from heat, oil and sharp edges.

### ● EXTENSION CORDS

Extension cords must be no longer than 50 meters in length. The wire section must be 1.5mm<sup>2</sup> on 240V to allow sufficient current flow to the motor. Improper use of extension cords may cause inefficient operation of the mixer which can result in overheating and motor damage.

Only extension cords to H07RN-F specification intended for outdoor purpose may be used. Avoid use of free and inadequately insulated connections. Connections must be made with protected material suitable for outdoor use. Make sure that any extension cord connections are dry and safe. Ensure that the extension cord is carefully laid out avoiding liquids, sharp edges and places where vehicles might run over it. Avoid allowing the extension cord to be trapped underneath the mixer. Unroll it fully or it will overheat and could catch fire.

### ● AVOID ELECTRICAL SHOCK

Check that the electric circuit is adequately protected and that it corresponds with the power, voltage and frequency of the motor.

Do not plug or unplug the motor while standing in or around damp or wet ground. Do not use the mixer in wet or damp areas or expose it to rain.

Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures.

Make sure your fingers do not touch the plug's metal prongs when plugging or unplugging the mixer.

After installation, the degree of protection of the BSI approved plug and socket combination shall be IP44D at least.

Note:

IP4XD means: the access probe of 1.0 mm diameter, 100 mm length, shall have adequate clearance from hazardous parts.



## SAFETY WARNINGS & INSTRUCTIONS

SYMBOL AFFIXED TO THE MACHINE

IPX4 means: water splashed against the enclosure from any direction shall have no harmful effects.

### ● KEEP VISITORS AND CHILDREN AWAY

Keep unauthorized persons away from the mixer.

Do not allow children to handle or climb on or in the mixer.

### ● DO NOT OVERREACH

Keep proper footing and balance at all times when loading or unloading the mixer.

Never stand on mixer. Serious injury could occur if the mixer is tipped or if the moving parts are unintentionally contacted. Do not store anything above or near the mixer where anyone might stand on the mixer to reach them.

### ● AVOID INJURY FROM UNEXPECTED ACCIDENT

Keep hands out of the way of all moving parts. Do not place any part of your body or any tool, like shovel in the drum during operation. When operating, do not pass hands through the clearance between frame and support leg or the one between the drum and support leg.

### ● DO NOT FORCE TOOL

It will do a better and safer job at its design rate. Always work within the rated capacity.

Do not start the motor if the drum is fully loaded. Do not turn mixer off while full of concrete.

Do not use the mixer for a purpose for which it was not intended.

The mixer is not to be towed by any vehicle.

### ● NEVER LEAVE MIXER RUNNING UNATTENDED

Do not leave mixer until it has come to a complete stop.

### ● DISCONNECT POWER

Never open the motor cover before unplugging the mixer. Disconnect from power supply when not in use, before moving, making adjustments, changing parts, cleaning, or working on the mixer. Consult technical manual before servicing.

### ● MAINTAIN YOUR MIXER WITH CARE

Clean the mixer immediately after use. Keep the mixer clean for best and safest performance.

When maintaining this mixer, only the manufacturer's original replacement parts may be used.

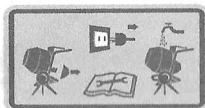
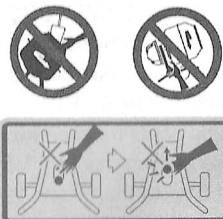
### ● PROTECT THE ENVIRONMENT

Take left over materials to an authorized collection point or follow the stipulations in the country where the mixer is used.

Do not discharge into drains, soil or water.

### ● STORE IDLE EQUIPMENT

When not in use, the mixer should be stored in a dry location to inhibit rust. Keep the mixer away from children and others not qualified to use it.




## ELECTRICAL CONNECTION

This mixer is double insulated to Class II protection and IP44D rated. The insulation will only remain effective if the original insulating parts are used for repairs and the spaces between the original insulation are maintained.



This mixer is double insulated to Class II protection and IP44D rated. Assembly and disassembly of the enclosure of electric control are critical to keep them remain effective. Only qualified electrician is allowed to repair the enclosure of electric control.

Double insulation  eliminates the need for the three-wire grounded power cord and grounded power supply system. Double insulated tools can use either a two or three wire extension cord.



Make sure that the motor is switched off before you plug it into the power supply. Do not connect either core to the earth pin.

The use of an Residual Current Device ("RCD"), (earth leakage trip), on 240V electrics is recommended. If using an extension cable, plug it directly into the RCD.

## SPECIFICATIONS

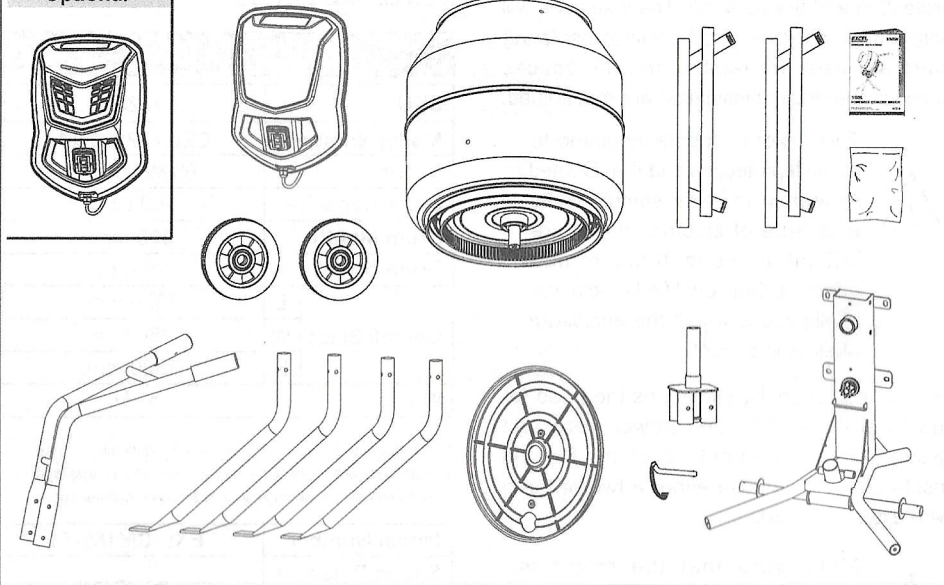
SKU	12235	
Model Number	EXL-CM160-T1	
Motor	650W S6 30%	
Drum Capacity	160 Litre	
Drum Mouth	390 mm	
Drum Speed	26 rpm	
Overall Sizes	L	1330 mm
	W	960 mm
	H	1320 mm
Weight	52 kg	

\* S6 30%, continuous operation periodic duty: time of one load cycle is 10 minutes, operation time at constant load is 3 minutes, operation time at no-load is 7 minutes.

Model Number	EXL-CM160-T1
Sound Pressure Level LPA	86 dB(A)
Uncertainty Kpa	3 dB
Sound Power Level LWA	93 dB(A)
Uncertainty Kpa	3 dB

## CONTENTS OF THE SHIPPING CONTAINER

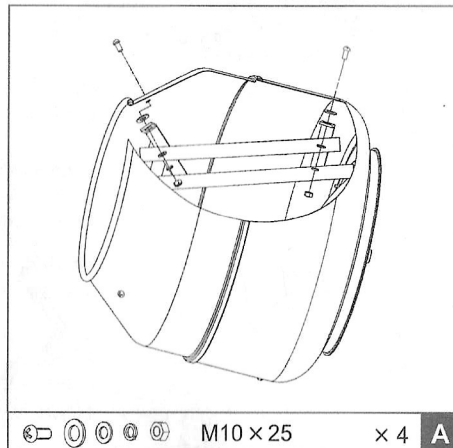
Optional



## ASSEMBLY INSTRUCTIONS



Two people assist in assembly recommended.

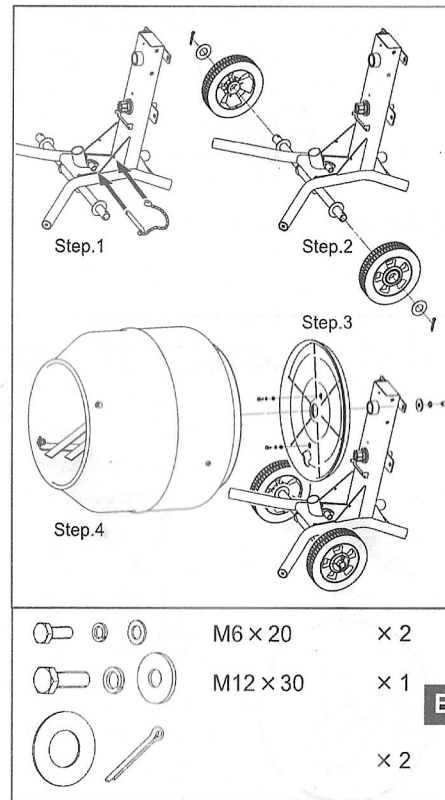


M10 x 25 x 4 **A**

	M10 x 25	x 4	<b>A</b>
	M6 x 20	x 2	
	M12 x 30	x 1	<b>B</b>
		x 2	
	M8 x 25	x 4	<b>C</b>
	M8 / Ø8	x 4	<b>D</b>
		x 2	<b>E</b>
		x 2	

6

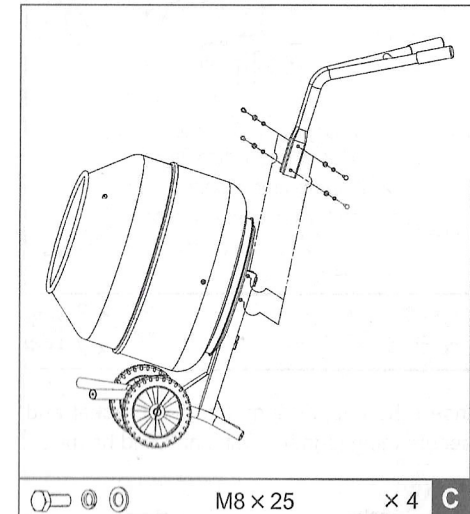
1. Insert the cross headed screws from the outside through the holes in the drum.
2. Place a leather washer inside between the drum and blade and secure the mixing blade from the inside using a flat washer, lock washer and nut.



	M6 x 20	x 2	
	M12 x 30	x 1	<b>B</b>
		x 2	

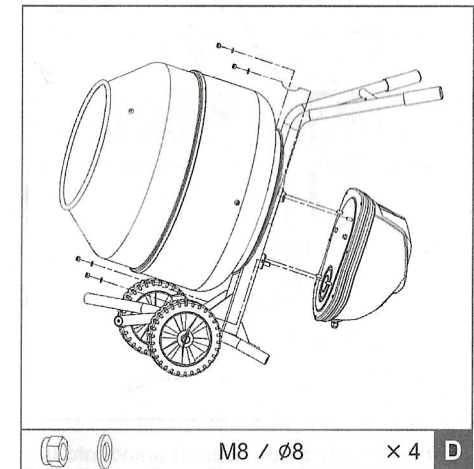
1. Rotate the chain end ring into one hole in the triangle support. Then insert the pin rod into the two tubes in order from the same side of the hole that connects chain to the opposite.
2. Slide the wheels over the stub axles. Secure each wheel with a flat washer and hairpin retainer.
3. Lining up the holes in the plastic bottom plate with the ones in the frame. Secure the plate on the frame with two M6x20 bolts each with a lock washer and flat washer.

4. Position the drum onto the plastic bottom plate as shown. Hold it in place and secure it with a M12x30 bolt with lock washer and flat washer.



M8 x 25 x 4 **C**

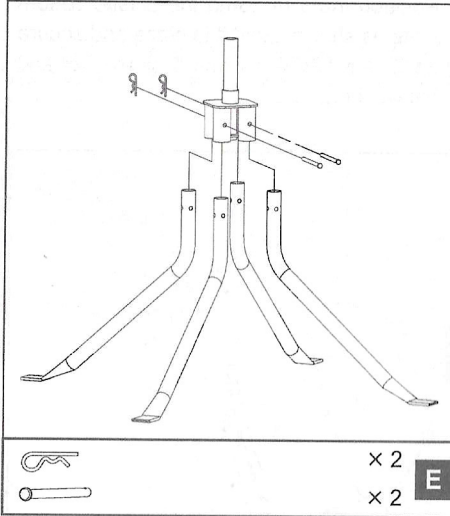
Lining up the holes in the handle bar with the ones in the support frame. Secure them together with bolts, lock washers and flat washers.



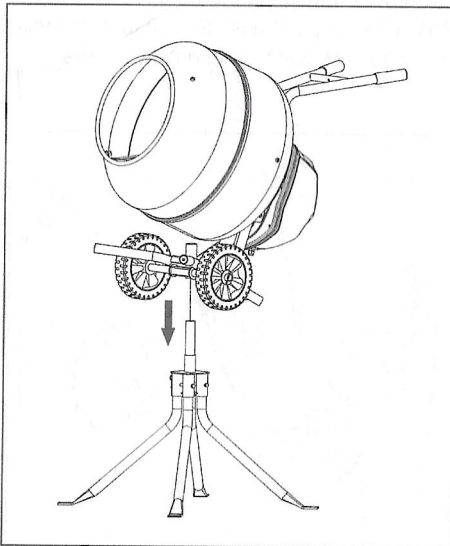
M8 / Ø8 x 4 **D**

Lining up the keyways, slide the transmission case over the pinion shaft. Secure a nut with flat washer on each of the four stub bolts.

7



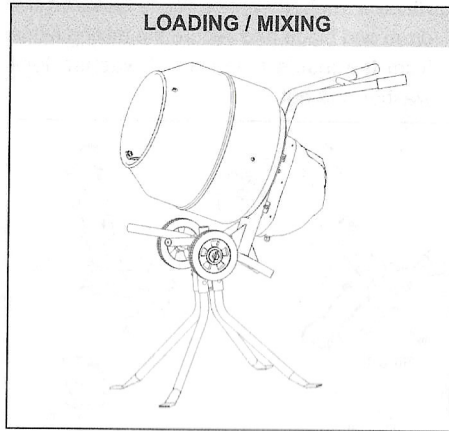
Insert the support legs into the bracket and secure them together with shaft and hairpin.



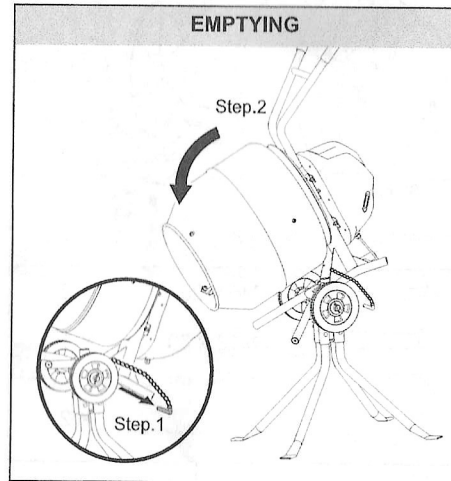
Put the already made support stand into the hole in the axle bracket as shown.

## OPERATION INSTRUCTIONS

### LOADING / MIXING



### EMPTYING



### LOADING



Completely unwind the extension cord. Connect it to the concrete mixer first before plugging in power supply.



Always start the mixer before loading the drum. Loading the drum with drum rotating.



Do not throw material into the mixer to avoid sticking firmly to the back of the drum. Trickle it steadily over the ram.

**NOTE:** A built-in thermal protector is arranged in the motor to prevent it from overheating. The thermal protector restores automatically when the motor cools down.

For best results, proceed as follows:

1. Add the required amount of gravel into the drum.
2. Add the required amount of cement into the drum.
3. Add the required amount of sand into the drum.
4. Pour the required amount of water into the drum.

### EMPTYING



Do not turn mixer off while full of load. Emptying the drum with drum rotating.

## MAINTENANCE INSTRUCTIONS



Before starting any maintenance or repairs, stop engine or switch off motor, and isolate from the main power supply.



On completion of maintenance, check that the mixer functions correctly and that all guard are correctly fitted.

### CLEANING



Never put hands inside the drum with drum rotating.

Thoroughly clean the mixer at the end of each day's operation. Keep your mixer clean. The slightest trace of material left in the drum will harden and attract more each time you use it until the machine is useless. Dried cement should be scraped out of the drum. Do not throw bricks into mixer drum to clean it out. Do not beat on the drum with a shovel, a hammer or other tools to break up accumulations of dried cement mix, as damage to the mixer may result.



Do not pour or spray water directly over the motor cover, especially the openings in it.



Wipe off any external material on the motor. Do not use petrol, turpentine, lacquer or paint thinner, dry cleaning fluids or similar products.

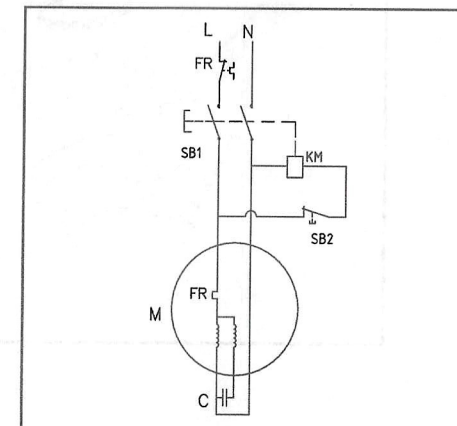


The wiring diagram and parts schematic in this manual are as reference tools only. Neither the manufacturer nor distributor makes any representation or warranty of any kind to the buyer that he or she is qualified to make any repairs to the product or that he or she is qualified to replace any parts of the product. Only qualified technicians should repair the mixer. Any maintenance and repairs carried out, to any of the electric components must be undertaken by a qualified electrician.

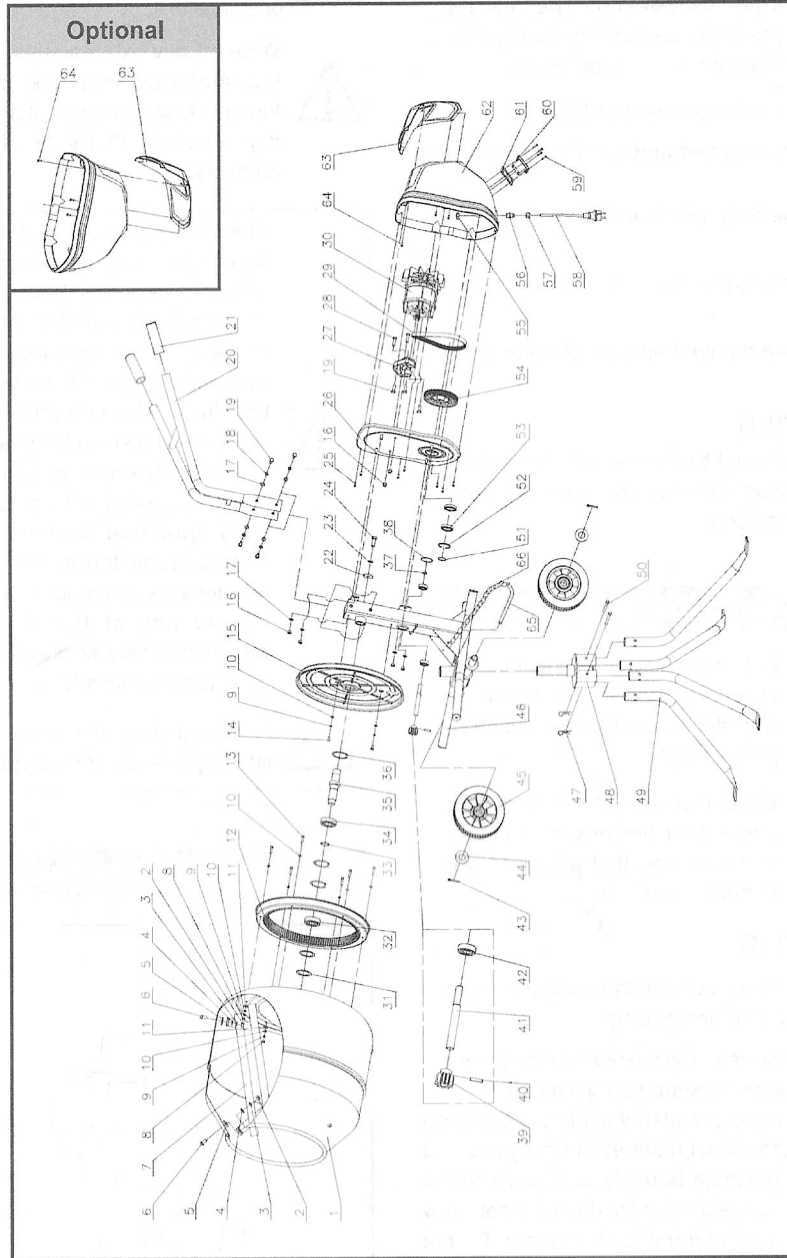


Parts in a circle should only be fitted by a qualified electrician.

## WIRING DIAGRAM



PARTS SCHEMATIC



PARTS LIST

No.	Description	Q'ty
1	Drum	1
2	Nut M 10	4
3	Spring Washer 10	4
4	Washer 10	4
5	Leather Washer Ø10	4
6	Screw M10x25	4
7	Mixing Blade	2
8	Nut M6	6
9	Spring Washer 6	8
10	Washer 6	14
11	Leather Washer Ø6	6
12	Big Cogwheel	1
13	Bolt M6x25	6
14	Bolt M6x20	2
15	Plastic Rotator	1
16	Locknut M8	6
17	Washer 8	8
18	Spring Washer 8	4
19	Bolt M8x25	7
20	Handle	1
21	Handle Grip Ø32	2
22	Washer	1
23	Spring Washer 12	1
24	Bolt M12x30	1
25	Self-tapping Screw ST4.2x16	7
26	Motor End Plate	1
27	Motor Seat	1
28	Bolt M8x30	2
29	Belt 6PJ-L540	1
30	Motor	1
31	Adjusting Washer	2
32	Bearing 6305-2RS	1
33	Circlip 30	1
34	Bearing 6206-2RS	1
35	Drum Rotating Shaft	1
36	Circlip 62	3
37	Circlip 15	1
38	O-Ring 41.5x2.65	1
39	Drive Pinion	1
40	Pin 6x25	1

No.	Description	Q'ty
41	Drive Pinion Shaft	1
42	Bearing 6202-2RS	2
43	Cotter Pin Ø5x40	2
44	Flat Washer	2
45	Wheel	2
46	Frame	1
47	Elastic latch Ø3	2
48	Leg Connection Bracket	1
49	Support Leg	4
50	Latch Ø10X126	2
51	Wire Snap Ring for Shaft	1
52	Circlip for Hole	1
53	Bearing 61906-2RS	2
54	Big Pulley	1
55	Strain Relief Nut	1
56	Strain Relief Bolt	1
57	Strain Relief Locknut	1
58	Plug	1
59	Self-tapping Screw ST3.5x16	4
60	Switch	1
61	Switch Washer	1
62	Motor cover	1
63	Decorative Cover (Optional)	1
64	Self Tapping Screw ST4.2x13 (Optional)	3
65	Steel ball pin	1
66	Pin Chain	11

***EXCEL***

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