

## METCALFE SP-50 (5 Litre Heavy Duty Mixer)

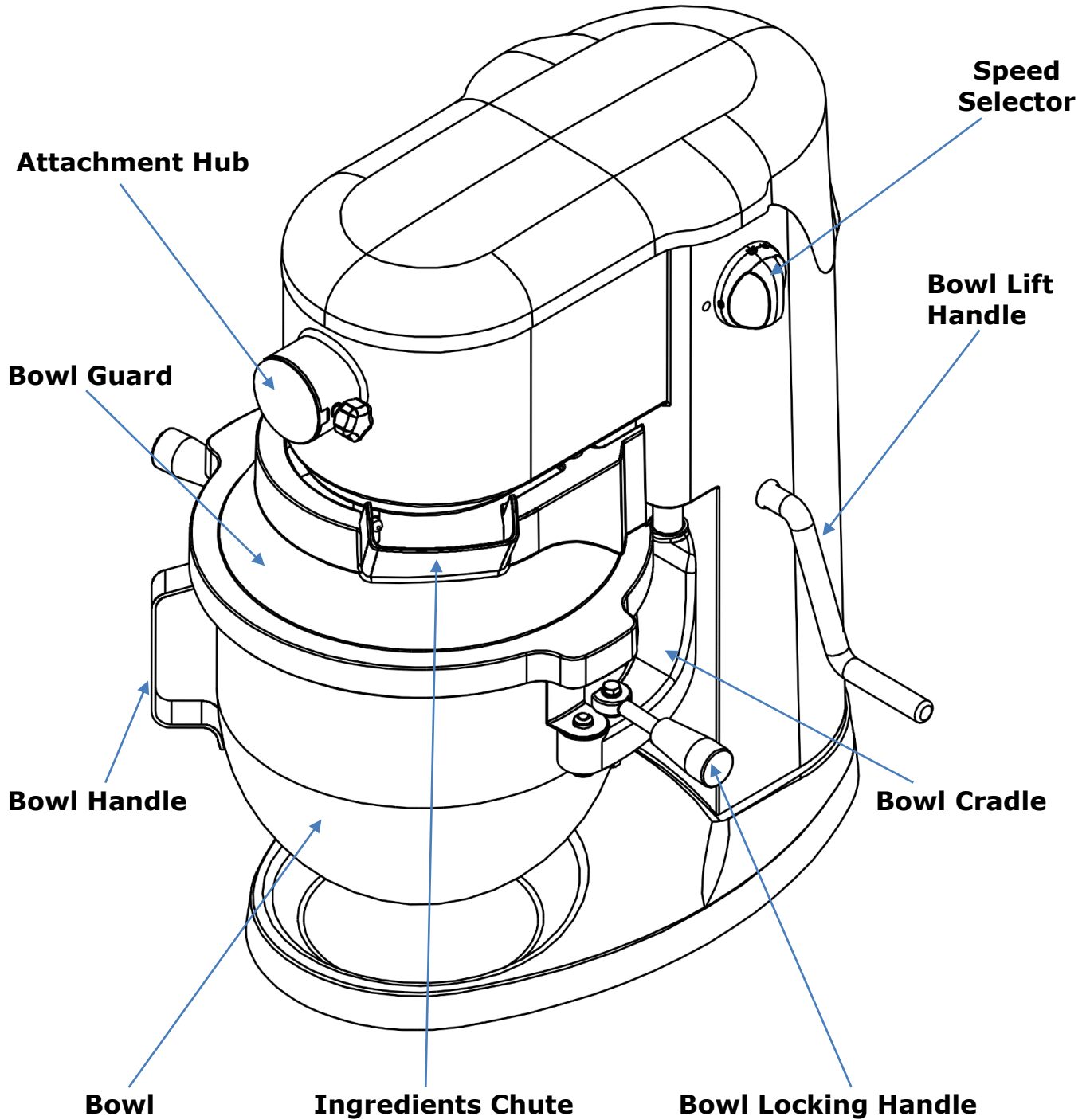
### Installation and Operating Instructions



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## YOUR MIXER



## METCALFE SP-50 (5 Litre Heavy Duty Mixer)

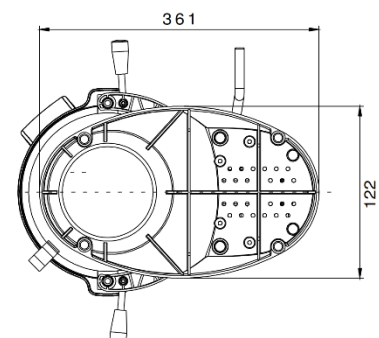
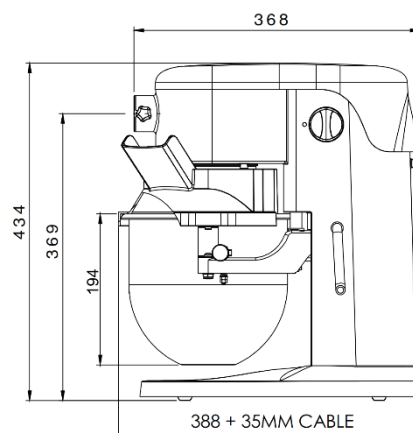
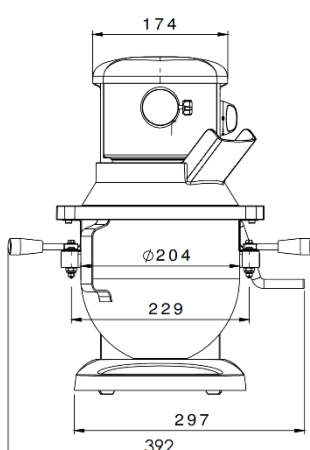
The Metcalfe SP-50 (5 Litre) has a total bowl capacity of 5 litres. The 3 mixing tools provided ensure that all mixing requirements are met.

### FEATURES

- Ten speeds (40, 70, 90, 106, 140, 170, 190, 210, 230, and 260 rpm).
- Electronic speed and load control
- Durable, NSF Approved, white powder coating
- Rigid cast aluminium body
- Polycarbonate splash cover with ingredient chute
- All stainless steel attachments
- Dual bowl clamps to lock bowl down
- Heavy duty motor, 800 watts
- Gear-driven, high torque transmission and motor
- Permanently lubricated transmission
- Thermal overload protection
- Attachment hub
- Easy action bowl lift
- Six foot cord with plug

### TECHNICAL SPECIFICATIONS

Weight (kg)	Capacity (Litres)	Electrical Supply	Power (Watt)	Dimensions (mm) H x W x D
16	5	230V 50Hz	750 W	455 x 370 x 470



## 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 stable operation, please punch holes on the table and fix the SP-50 into place securing it with four screws, please see figure 1.

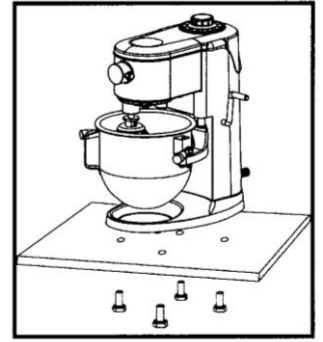


Figure 1

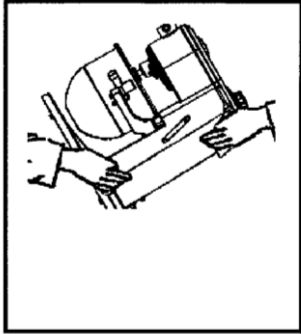


Figure 2

The unit weighs 15kg and transportation should require two people, please see 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 enable the machine to be serviced. (Max. 2 meters of cable).

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 earth 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.

## 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.

## IMPORTANT INFORMATION

### **THERMAL OVERLOAD PROTECTION**

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 batch size. After waiting 1 – 2 minutes, turn the ON/OFF speed selector to ON position. The thermal overload protection is an automatic reset device.



**Note: if the circuit breaker overloads frequently and shuts off the machine, please replace the circuit breaker.**

### **FITTING THE BOWL**

With the bowl cradle lowered, place the chosen attachment in the bowl and position the bowl on the cradle. There are three locational 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 weld clips in the bowl handles must engage on the locating pins located on the cradle.
3. Levers (latches) which lock the bowl into position.

### **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.

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

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




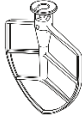
### **ATTACHMENT SELECTION**

The beater, whisk and 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. Below table shows the typical uses for each of the tools.

	Beater: Firm mixes such as light pastry, cakes, biscuits, icing, fillings & mashed vegetables.
	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.

**SPEED SELECTIONS**


To start the mixer, please turn the selector button in a clockwise direction starting from 0. The speed selected depends largely on the quantity and consistency of the product. It is recommended that the mixing should always be started at the lowest speed and progressively increase to the desired setting. Turn the selector button clockwise to increase the speed, and anti-clockwise to decrease. To stop the mixer, please turn the selector back to 0. The below table shows the recommended speed for the attachment supplied.

	1	2	3	4	5	6	7	8	9	10
	—————→									
	—————→									
	—————→									



**Note: Do not force the button ON-OFF as this may damage the potentiometer.**

**CONTROLS**

	<p>Speed Selector Button</p> <p>Position 0: OFF</p> <p>Position 1-3: Low speeds (Dough Hook)</p> <p>Position 4-7: Medium speeds (Beater)</p> <p>Position 7-10: High speeds (Whisk)</p>
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## OPERATION

### TO AVOID SERIOUS PERSONAL INJURY:

- **DO NOT** operate the mixer before reading the instruction manual first.
- **ALWAYS** disconnect or unplug electrical power before cleaning, servicing or adjusting any parts or attachments.
- **NEVER** bypass, alter, modify or attach any unauthorized parts to this equipment. Doing so may create hazards and will void warranty.
- **NEVER** operate mixer with a damaged power cord or plug.
- **ALWAYS** keep hands, hair and clothing away from moving parts.

**NOTE: Wash all attachments and bowl prior to use.**

### **ATTACHING THE BOWL TO THE MIXER**

NOTE: Install the bowl BEFORE attaching the agitators.

1. Lower the bowl by pushing the bowl lift lever backwards and down to its resting position.
2. Lift the bowl by the bowl handle and
  - A. slowly position the locking pin (located on the rear of the bowl) into the hole in the middle rear of the cradle.
  - B. lower the bowl onto the pins located on either side of the bowl cradle.
3. Once the bowl is positioned on the cradle, secure the bowl by pulling both bowl clamps forward until the bowl is locked tight.

### **ATTACHING THE ATTACHMENT TO THE MIXER (i.e., Beater, Dough Hook, Whip)**

NOTE: It is easier to install the attachment prior to adding the ingredients into the bowl.

1. The bowl must be installed, lowered into position and the splash cover should be removed.
2. Slide the attachment slowly upwards onto the planetary shaft fitting the shaft pin through the slot in the agitator.
3. Rotate the attachment clockwise to secure it onto the planetary shaft.

NOTE: After cleaning, make sure to wipe the shaft with Vaseline or vegetable oil for better lubrication and to prevent breakdown of shaft and its parts. DO NOT use any lubricant that can be harmful to humans to ingest as some lubricants may come in contact with some mixing processes.



## **MIXING INGREDIENTS**

Follow the capacity chart located on page 11

Overloading or not following this chart will damage the mixer and void the warranty

### **IMPORTANT: Make sure the speed control dial is in the off position.**

1. Add the appropriate mixing ingredients into the bowl.
2. If desired, place the bowl guard on top of the bowl and align the pins on the guard with the holes on the rim of the bowl (see Fig. 8-1 and 8-2).

Note: In order for the SP50 mixer to operate, the bowl guard must be in place and clicked into locked position.

3. Lift completely up on the bowl lift lever until the bowl locks into position.
4. Select the appropriate speed setting by rotating the speed selector knob clockwise starting from 0. To increase mixer speed, continue turning the selector button clockwise to desired speed.

### **Recommended speeds while mixing:**

Position Speed	Attachment	Product Type/Ingredient
1 (stir)	All	Start to incorporate ingredients
2 (low)	Dough Hook	<b>Heavy:</b> mixing pizza, bread, pasta, stuffing and donut dough's, cake, batter, mashed potatoes, etc.
3-7 (medium)	Beater	<b>Medium:</b> 2nd stage of mixing for donut dough, etc.
8-10 (high)	Whip	<b>Light:</b> whipping cream, egg whites, meringue, mousse, pancake mix, sponge cakes, etc.

**IMPORTANT: When mixing product always follow the recommended agitator and speed setting according to the capacity chart located on page 12 of this manual.**

### **CAUTION**

**Always STOP the mixer BEFORE changing or fitting accessories! Failure to do so may cause harm to the operator; it may also damage the gears or other parts and WILL void the warranty!**

5. During the mixing process, additional ingredients can be added to the mixture using the food chute located on the splash cover.
6. To turn off the mixer, turn the variable speed control counter clockwise until the dial is aligned with the selector notch to the zero "0" position and the mixer turns off

NOTE: If the mixer shuts off during operation, return the speed control dial back to the zero "0" position.

NOTE: The mixer is equipped with a manual motor reset on the back column. Reduce the batch size and wait approximately five minutes, press the reset button and then continue mixing.

7. When the ingredients have been thoroughly mixed, rotate the speed selector knob and begin turning the speed control dial counter clockwise to the zero "0" position.

8. Lower the bowl by pushing the bowl lift lever backwards and down to its resting position.

9. Remove the guard by lifting it off the bowl.

10. Remove the attachment from the planetary shaft by lifting it upwards then rotating it counter clockwise until it is unlocked. Lower the attachment and remove from the planetary shaft.

11. Push each bowl clamp backwards to unlock the bowl from the bowl cradle.

12. Lift up slightly on the bowl so it clears the pins on the bowl cradle.

## CLEANING INSTRUCTIONS

It is essential to clean the unit at least once a day, or at the end of each operation period.

**ALWAYS** unplug the mixer before cleaning.

- **FOLLOW** the supplier’s instruction on all detergents. Clean mixer, attachments and parts thoroughly after use. Lubricate moving parts appropriately with Vaseline or vegetable oil, after wash-down, for better lubrication and to prevent breakdown of shaft and its parts.
- **DO NOT** use any lubricant that can be harmful to humans to ingest as some lubricants may come in contact with some mixing processes.
- **DO NOT** hose down, immerse or pressure wash any part of the mixer.
- **NEVER** use a scrubber pad, steel wool or abrasive material to clean the mixer.
- **NEVER** use bleach (sodium hypochlorite) or bleach based cleaner.
- **ALWAYS** remove the attachment after each batch. If not, the attachment can become stuck on the shaft and be difficult to remove.



**The entire mixer, including removable parts, must be thoroughly cleaned and sanitized.**



**It is extremely important to sanitize the mixer and to follow the instructions on the quaternary sanitizer container to ensure proper sanitation is achieved.**



**ALWAYS DISCONNECT OR UNPLUG THE ELECTRICAL POWER FROM THE MIXER BEFORE CLEANING. RECOMMENDED CLEANING.**

Part	Required Action	Frequency
Attachments	Hand-wash using mild soap and water, rinse, dry and sanitize.  (Note: That the hook, beater and whisk are <b>NOT</b> dish washer safe.	Clean after each use.
Bowl	Using a scrubber pad, mild soap and water, apply pressure to ensure the bowl is clean, rinse, dry and sanitize. The bowl can also be placed in a dishwasher for cleaning.	Clean after each use.
Splash Cover	Hand-wash using mild soap and water, rinse, dry and sanitize.	Clean after each use.
Bowl Cradle	Hand-wash using mild soap and water, rinse, dry and sanitize. Daily Planetary Shaft Wipe with clean damp cloth, dry and sanitize then lubricate	Daily
Planetary Shaft	Wipe with clean damp cloth, dry and sanitize then lubricate.	Clean after each use.
Exterior	Hand-wash using mild soap and water, rinse, dry and sanitize. DO NOT use a water hose and NEVER immerse in water!	Daily

**DO NOT USE CLEANING MATERIALS CONTAINING ABRASIVES OR BLEACHES**

## CAPACITY

The below 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)	Whisk	Beater	Dough Hook
Meringues	10 egg whites	*		
Sponge Cake	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			*
Choux Pastry	600g flour			*
Sweet Pastry	750g flour			*
60% Bread Dough	750g flour			*
Pizza	400g flour			*
Stuffing	1Kg			*
Sausage Meat	1Kg			*
Dough	1Kg			*

**1. Recommended weight for finished mix rules unless otherwise stated.**  
**2. Water content e.g. 250g water / 500g flour = 50% moisture.**  
**3. For pizza dough with lower moisture content consult Metcalfe Catering Equipment.**  
**4. For higher gluten flour reduce dough batch by 25%.**

 **Note: Too 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.**

## 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 a trained technician on a regular basis.

### ON A REGULAR BASIS

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

### ON AN ANNUAL BASIS

Check that all bolts are tight and bowl guard is secure

## TROUBLESHOOTING

<b>Problem</b>	<b>Possible Cause</b>	<b>Action Required</b>
Mixer will not start / run	Power not connected properly.	Check all power connections. Plug into a live socket. ( <i>Do not use extension cord!</i> ) Test socket with another item.
	Building circuit breaker off.	Check breaker box.
	Internal motor overload tripped.	Press the motor reset button on back column.
	Mixer speed dial is not set to zero (0).	Move mixer speed dial back to zero (0) then speed can be moved up.
Mixer stops during mixing	Internal motor overload tripped. Motor overheated.	Press the motor reset button on back column, Wait five (5) minutes before restarting.
Mixer is noisy	Mixer is not installed on level surface.	Adjust surface or relocate mixer.
	Bowl not seated correctly or clamps not in place.	Ensure bowl is seated into bowl cradle correctly and bowl clamps are locked into place.
	Attachment not fitted properly.	Remove and re-attached attachment into position correctly.
	Overloading bowl.	Reduce batch size. (See capacity)
Mixer time is too long	Batch size too small.	Increase batch size.
	Incorrect recipe portions or temperatures.	
Bowl raise sticking or not operational	Lack of lubrication and/ or cleaning of bowl slides.	Hand wash using mild soap and water, dry and lubricate bowl slides with mineral oil or food quality grease. If still sticking, a technician must clean bowl rise mechanism.
One or more gears not working	Damaged or broken gear.	Technician to replace gear.
Attachments touching bottom or side of bowl	Defective or dented bowl.	Remove dents or replace bowl
	Defective attachment.	Replace attachments.
Broken Whisk Wires	Batch size too large for mixer. Items too firm, speed to high.	Reduce batch size. (See capacity) Adjust recipe. Reduce speed.
	Hand utensil dropped into bowl while mixing.	Stop mixer before working on mixture.
Broken Beater	Ingredients too cold or too large (e.g. frozen butter, cream cheese cut in chunks).	Wait for ingredients to reach room temperature before mixing. Reduce chunk size.
Broken Dough Hook	Batch size too large for mixer.	Reduce batch size. Adjust recipe.
	Ingredients too cold or too large.	Wait for ingredients to reach room temperature before mixing. Reduce chunk size.
Discoloration of mixed product	Bowl has not been thoroughly cleaned.	Clean the bowl again using a scrubber pad and applying pressure (refer to page 8).
Attachments won't go onto the planetary shaft easily	Lack of lubrication and/or cleaning of planetary shaft.	Wipe planetary shaft with clean damp cloth and lubricate the shaft with mineral oil or food quality grease.

- . 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.

## SPARE PARTS AND SERVICE

For more information on Metcalfe Spares / Accessories and Service Support, please always quote the Serial Number of the machine. This can be found on the serial number plate (as shown below)



Contact us on the details below;

Metcalfe Sales & Spares Dept

Tel: 01766 830 456 - Opt 1

Email: [enquires@metcalfecatering.com](mailto:enquires@metcalfecatering.com)

Metcalfe Service Dept

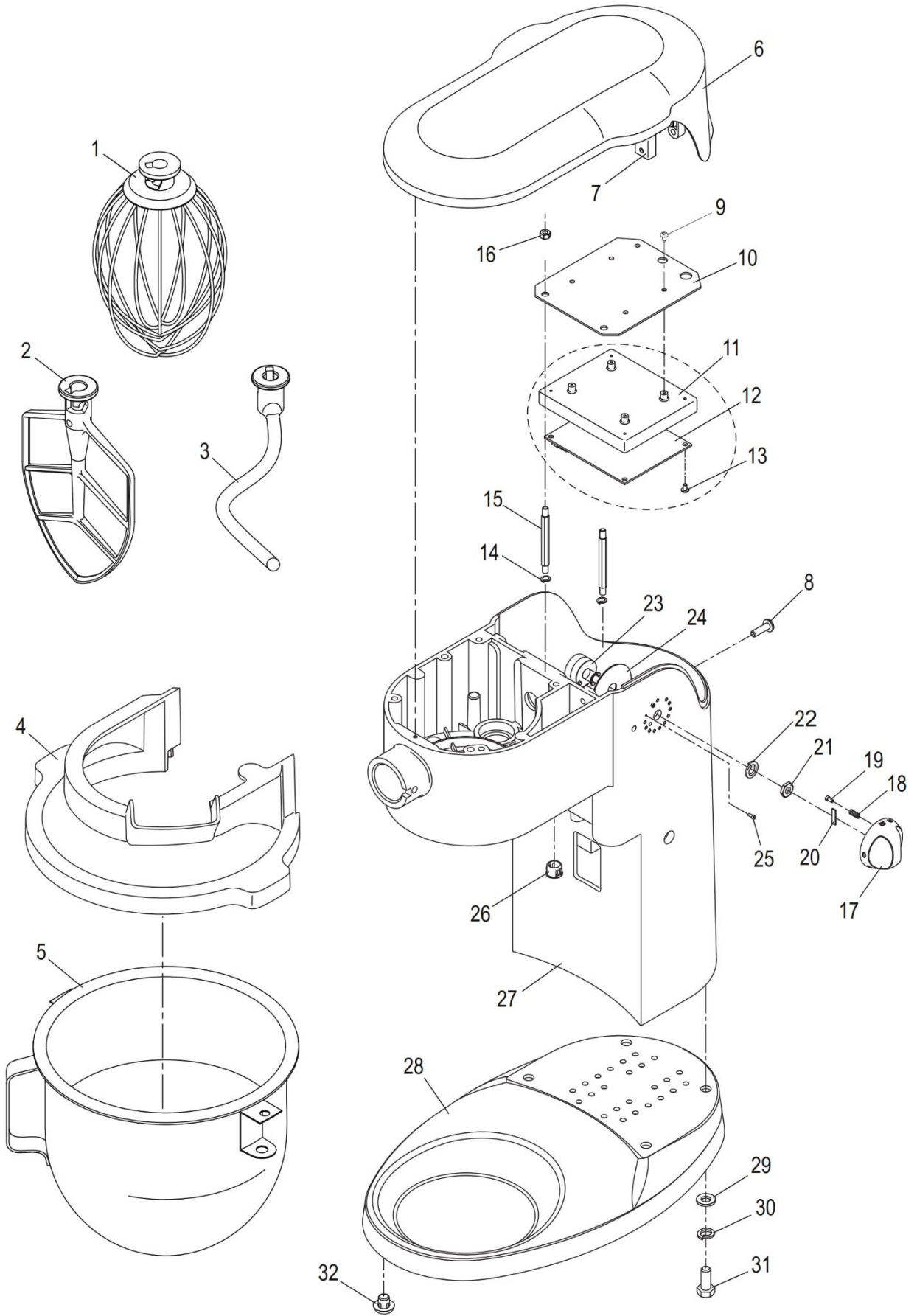
Tel: 01766 830 456 - Opt 4

Email: [karen@metcalfecatering.com](mailto:karen@metcalfecatering.com)

Additional copies of either the instruction manual or breakdown drawing for this unit can be obtained by visiting the Metcalfe Catering Equipment Ltd website or contacting sales.

Web-site: [www.metcalfecatering.com](http://www.metcalfecatering.com) / Sales e-mail: [sales@metcalfecatering.com](mailto:sales@metcalfecatering.com)

# MIXER BASE - BREAKDOWN DRAWING

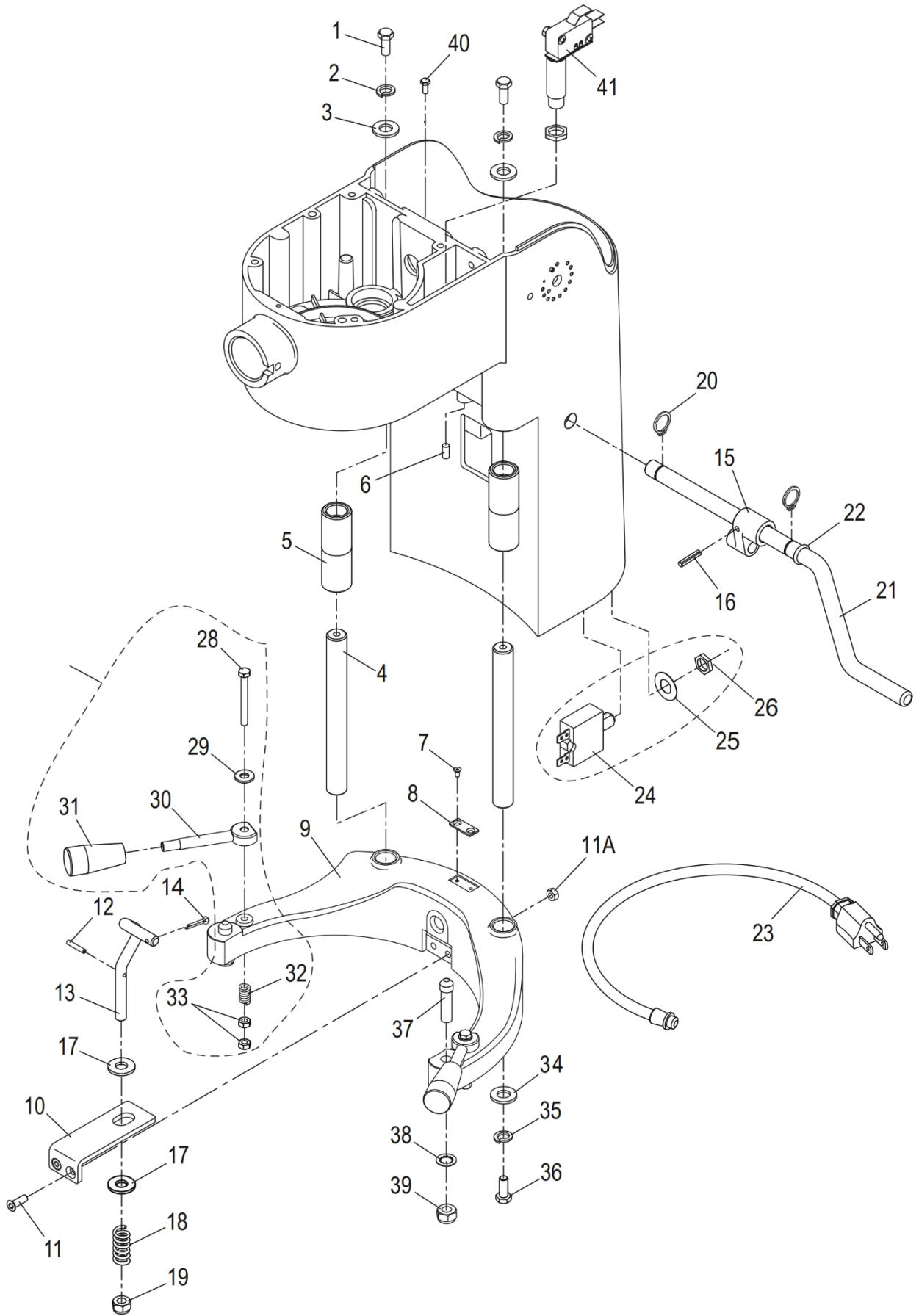




## SP50 - Base Parts List

Item	Part No.	Qty	Description
1	SP50W01	1	Whisk
2	SP50B02	1	Beater
3	SP50D01	1	Dough Hook
4	SP50G	1	Perspex Safety Guard
5	SP50B01	1	Bowl
6	SP50T01	1	Top Cover
7	5A39	1	Mixer Cover Reinforcement
8	5A14	1	Screw, Socket Hd Cap (Mixer Cover)
9	5A35	4	Screw, Button Hd
10	5A21	1	Plate, Housing Mounting
11	5A33	1	Housing of Electronic Board
12	5A20-1	1	Electronic Circuit Board
13	5A34	4	Screw, Button Hd
14	5A42	2	Spring Washer
15	5A41	2	Standoff
16	5A43	1	Nut
17	SP50/5A05	1	On / Off / Speed Selector
18	5A08-1	1	Spring
19	5A09	1	Plunger
20	5A44	1	Tab, Alignment
21	5A10	1	Nut
22	5A12	1	Washer
23	SP50/5A15	1	Potentiometer
24	5A16	1	Insulation Pad
25	5A45	1	Nut
26	5A26	1	Plastic Plug
27	5A25-1	1	Mixer Body, Side Dial
28	5A27	1	Mixer Base
29	5A28	4	Washer, Flat
30	5A29	4	Washer, Spring Lock
31	5A30	4	Screw, Hex Hd
31	5A30	4	Screw, Hex Hd
32	SP50/UH/1260	4	Rubber Pads

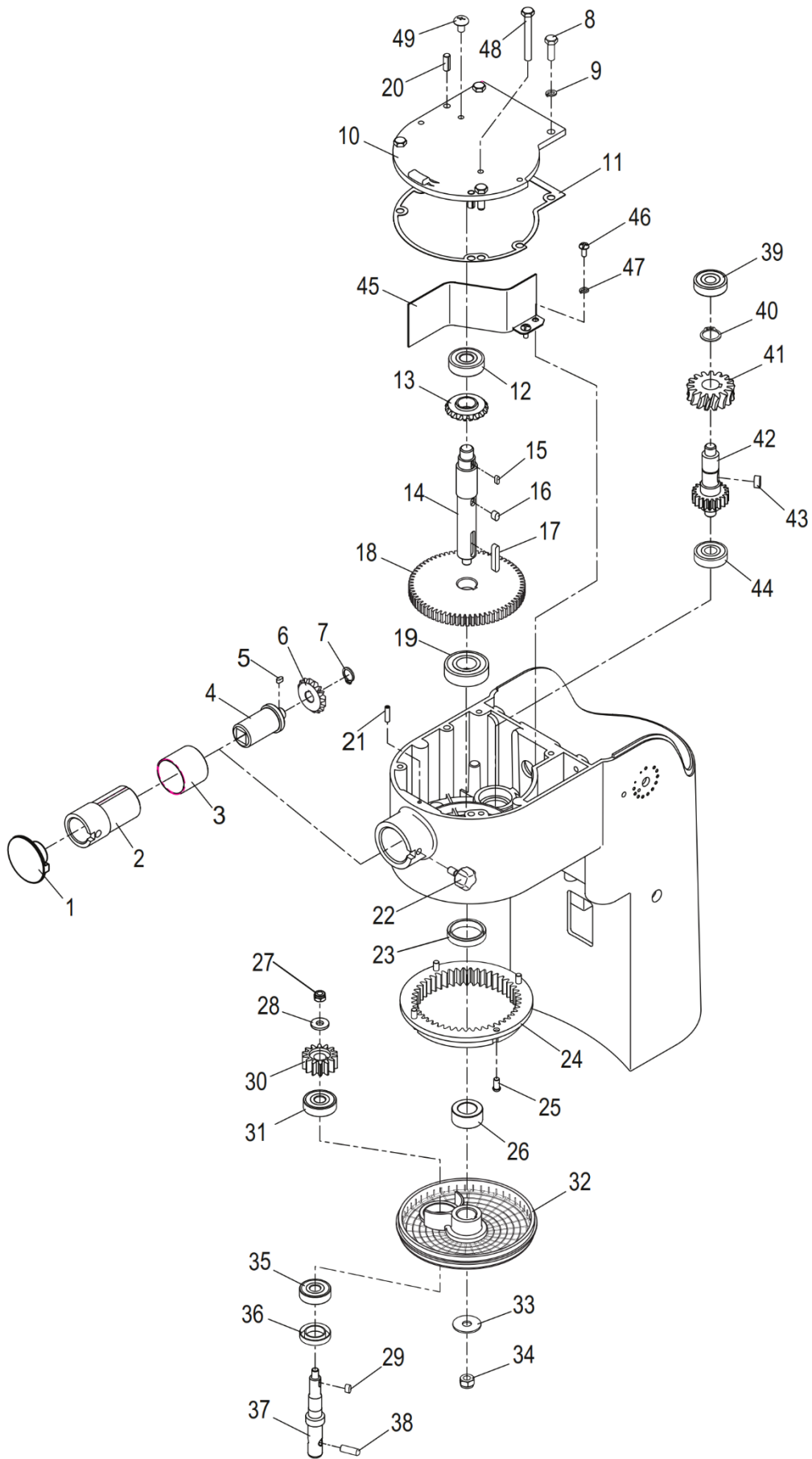
# BOWL LIFT - BREAKDOWN DRAWING



### SP50 - Bowl Lift Parts List

Item	Part No.	Qty	Description
1	5B01	2	Screw, Hex HD
2	5B02-1	2	Spring Washer
3	5B02	2	Flat Washer
4	5B03	2	Bowl Lift Shaft
5	5B04	21	Bushing
6	5B05	2	Set Screw Cut Pt (Bowl Limit)
7	5B06	1	Screw, Flat Head
8	5B07	1	Pad, Bowl Limit
9	5B08	1	Bowl Cradle
10	5B09	2	Bowl Lift Bracket
11	5B10	2	Screw, Flat Head
11a	-	2	Nut, Hex
12	5B11	1	Spring Pin
13	5B12	1	Bowl lift Connecting Rod
14	5B13	1	Cotter Pin
15	5B14	1	Bowl Lift Connector
16	5B15	1	Spring Pin
17	5B16	2	Washer, Flat
18	800091	2	Spring
19	5B18	1	Lock Nut, Nylon Insert
20	5B19	2	Retaining Ring (STW-12)
21	5B20	1	Bowl Lift Handle
22	5B22	1	O Ring (Handle Seal)
23	5B23	1	Power Cord & Plug
24	5B24	1	Overload Relay
25	5B24-1	1	Label, Relay
26	5B24-2	1	Nut
27	-	-	-
28	5B25	2	Screw, Hex Head
29	5B26	4	Washer, Flat
30	800089	2	Bowl Clamp
31	800090	2	Plastic Knob
32	5B31	2	Spring
33	5B33	4	Nut, Hex
34	5B29	2	Washer, Flat
35	5B29-1	2	Washer, Spring Lock
36	5B30	2	Screw, Hex HD
37	5B34	2	Bowl Lock Pin
38	5B35	2	Washer, Lock - Internal Tooth
39	5B36	2	Lock Nut, Nylon Insert
40	-	2	Screw. Ground - Hex HD (Grn)
41	5E02	1	Microswitch

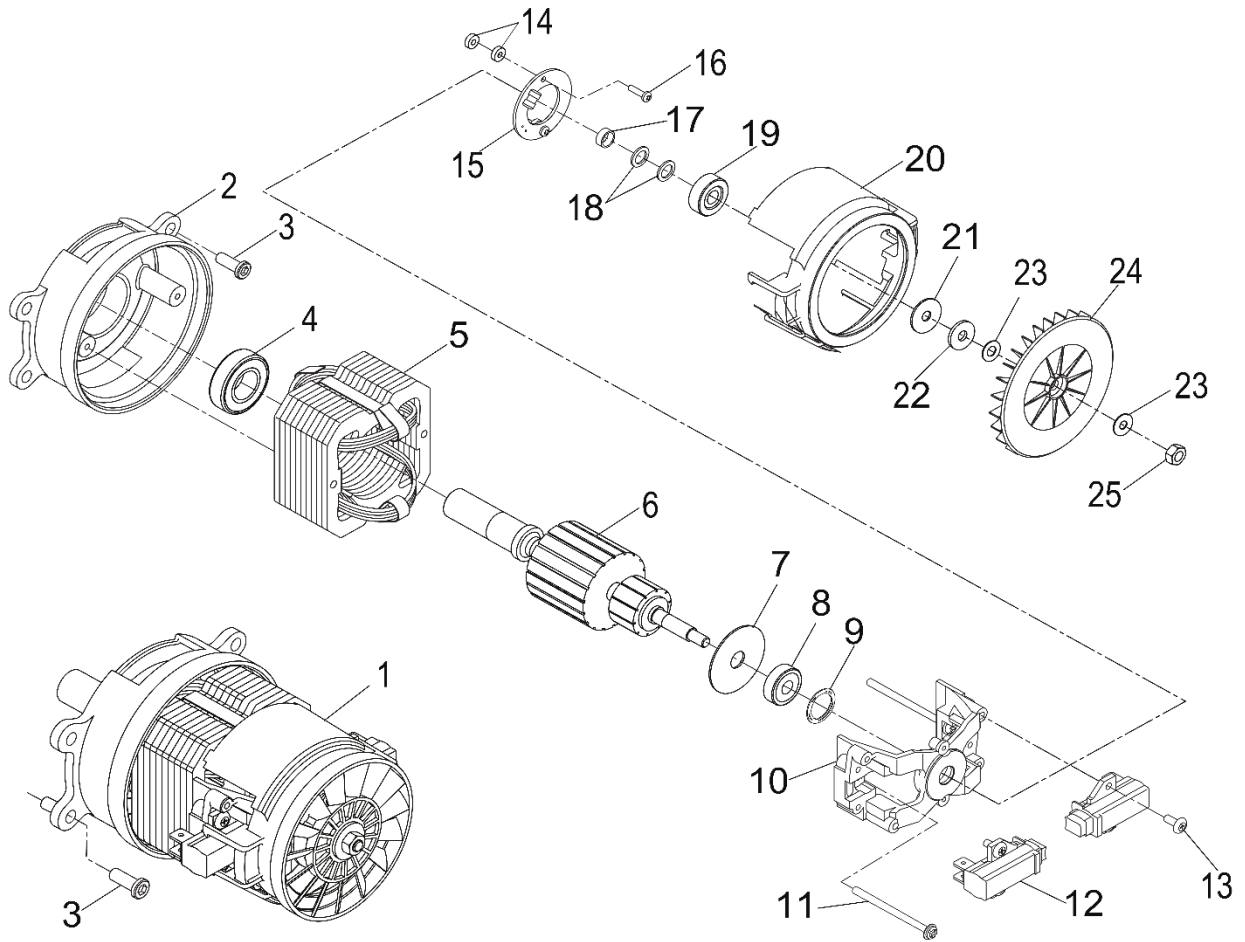
# TRANSMISSION - BREAKDOWN DRAWING



### SP50 - Transmission Parts List

Item	Part No.	Qty	Description
1	5C01	1	Plug, Attachment
2	5C02	1	Hub Attachment
3	5C47	1	Anti - Oil Bushing
4	5C03	1	Level Drive Gear
5	5C04	1	Key
6	5C05	1	Level Drive Gear (16T)
7	5C06	1	Retaining Ring (STW-10)
8	5C07	4	Screw, Hex Head
9	5C08	4	Washer, Spring Lock
10	5C09	1	Transmission Case Cover
11	5C10	1	Gasket
12	5C11	1	Ball Bearing (6201)
13	5C12	1	Level Drive Gear (20T)
14	5C13	1	Drive Shaft
15	5C14	1	Key
16	5C15	1	Key
17	5C16	1	Key
18	5C17-1	1	Gear (66T)
19	5C18	1	Ball Bearing (6203)
20	200074-1	2	Locking Pin (M6)
21	5C20	1	Set Screw, Cup Pt
22	5C21	1	Knob, Attachment
23	5C22	1	Oil - Seal (TC:25 x 35 x 7)
24	5C23	1	Planetary Internal Gear (47T)
25	5C24	4	Screw, Button Hd Socket Cap
26	800117	1	Bushing, Oil - Seal
27	5C27	1	Nut, Nylon Insert
28	5C28	1	Washer, Flat
29	5C29	1	Key
30	5C30	1	Pinion (14T)
31	5C31	1	Ball Bearing (6200)
32	5C32	1	Planetary Holder
33	5C33	1	Flat Washer
34	5C34	1	Nut, Nylon Insert
35	5C35	1	Ball Bearing (6201ZZ)
36	5C36	1	Oil - Seal (TC:28 x 17 x 6)
37	5C37	1	Planetary Shaft
38	800037	1	Pin
39	5C39	1	Ball Bearing (6200LLUCM)
40	5C40	1	Retaining Ring (STW-15)
41	5C41	1	Drive Gear (16T)
42	5C42-1	1	Transmission Shaft (22T)
43	5C43	1	Key
44	5C44	1	Ball Bearing (6200)
45	5C45	1	Divider Plate
46	5C46	2	Screw, Truss Head
47	-	2	Washer, Spring Lock
48	5C48	1	Screw, Hex Head
49	5C49	1	Screw, Button Hd Socket Cap

## MOTOR - BREAKDOWN DRAWING

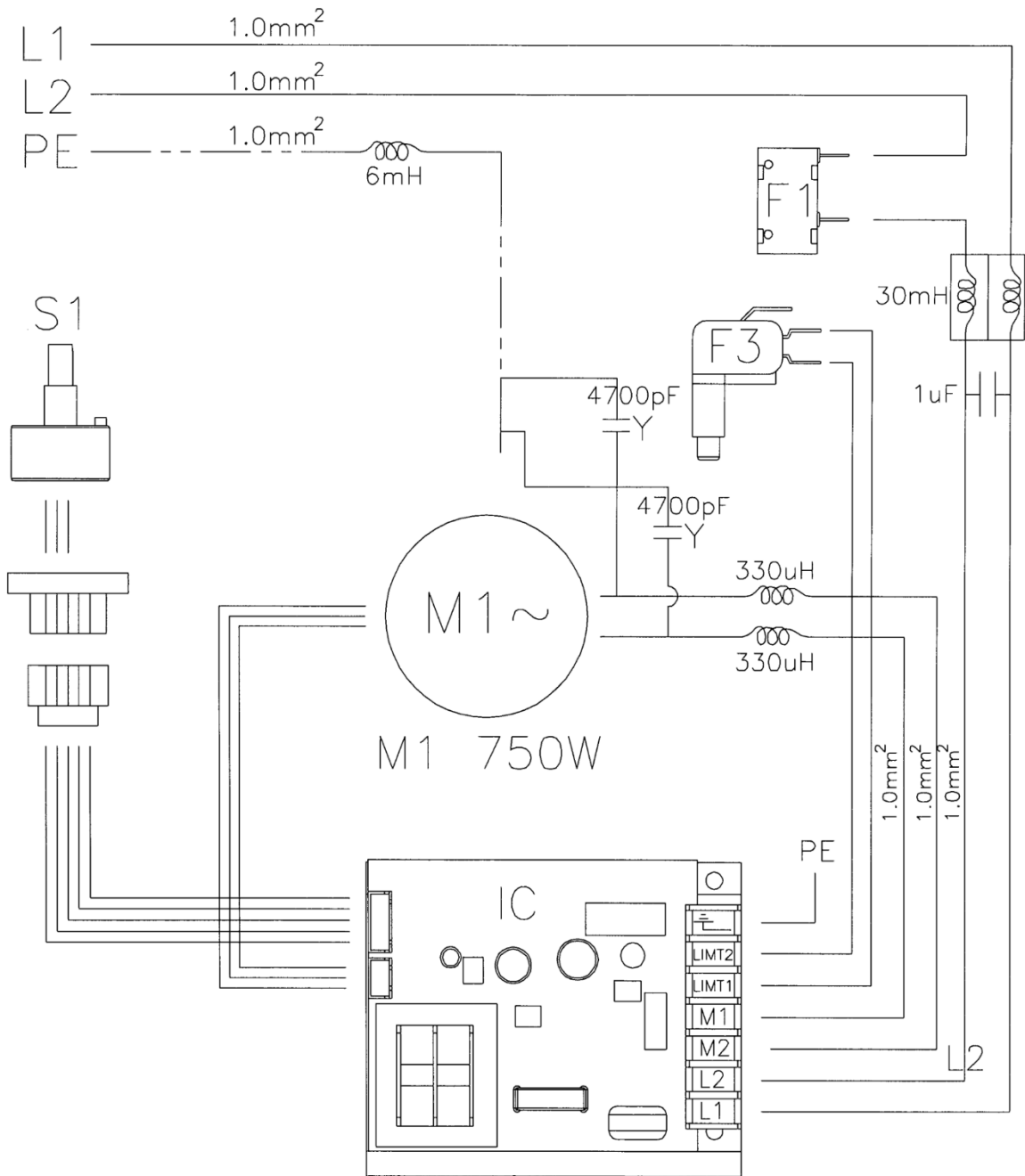


### SP50 - Motor Components Parts List

Item	Part No.	Qty	Description
1	SP50M01	1	Motor Assembly
2	-	1	Motor Front Cover
3	5D14	4	Screw, Socket HD Cap - Low HD
4	5D02	1	Ball Bearing (6003ZZ)
5	-	1	Motor Coil
6	-	1	Motor Axle
7	-	1	Spacer, Bakelite
8	-	1	Ball Bearing (608ZZ)
9	-	1	Spacer
10	-	1	Motor Back Cover
11	-	1	Screw, Pan Washer Hd
12	SP50C	2	Carbon Brush
13	-	4	Screw, Truss HD
14	5D20	4	Spacer, Bakelite
15	5D15-1	1	Tachometer

- Please note parts no 16 to 25 are not available as individual items.

## WIRING DIAGRAM



ITEM	DESCRIPTION	PART NUMBER	QTY
F1	CIRCUIT BREAKER	110V/3A 220V/2.2A	1
F3	MICROSWITCH(SAFTY COVER)	EF83161.1	1
S1	SPEED SELECTOR	315VDC 0.255W	1
M1	MOTOR	750W, 1PH, 100V/240V, 50/60HZ	1
IC	IC BOARD	MH-29037	1

## METCALFE WARRANTY

All Metcalfe products are guaranteed against defects in material and workmanship for a period of one year from date of Invoice, except where specially noted.

The Company's obligation under this warranty is limited to repairing or replacing, without charge, any part or parts found to be defective under normal use, in accordance to the specified operations manual and capacity ratings.

On all return to factory warranty items, it is the responsibility of the purchaser to return the entire unit to the factory, properly packed and labelled.

All repairs, alterations or replacement of materials or parts not authorised by Metcalfe will automatically void all warranties in their entirety.

There is a limited **6-month warranty** on the following:

- Mixer attachments (beater, whisk and dough hook)
- Parts purchased or supplied for the repair of Metcalfe equipment

This warranty does not cover the following:

- Failure due to neglect, abuse, careless handling or misuse of machine
- Failure caused due to improper maintenance
- Blender clutches
- Knives and gears on can openers
- Sharpening of slicer blades

Metcalfe and its suppliers reserve the right to make changes in design and specification to any product without prior notification.









### Electrical PAT Certificate

Test Detail	Results
Item:	
Class:	Class 1 / Class 2
Date:	/ /
Appliance ID:	
User ID:	M.C.E.
Visual:	
Earth Current:	amps
<b>Class 1</b> Earth Result/RPE:	Ω
RISO:	MΩ
1 EA:	MA
<b>Class 2</b> RISO:	MΩ
1 EA:	MA
Insulation (500V):	MΩ
Load:	KVA
Leakage:	MA
Polarity (leads only):	

Test Detail	Results
Item:	
Class:	Class 1 / Class 2
Date:	/ /
Appliance ID:	
User ID:	M.C.E.
Visual:	
Earth Current:	amps
<b>Class 1</b> Earth Result/RPE:	Ω
RISO:	MΩ
1 EA:	MA
<b>Class 2</b> RISO:	MΩ
1 EA:	MA
Insulation (500V):	MΩ
Load:	KVA
Leakage:	MA
Polarity (leads only):	

### Electrical PAT Certificate

Test Detail	Results
Item:	
Class:	Class 1 / Class 2
Date:	/ /
Appliance ID:	
User ID:	M.C.E.
Visual:	
Earth Current:	amps
<b>Class 1</b> Earth Result/RPE:	Ω
RISO:	MΩ
1 EA:	MA
<b>Class 2</b> RISO:	MΩ
1 EA:	MA
Insulation (500V):	MΩ
Load:	KVA
Leakage:	MA
Polarity (leads only):	

Test Detail	Results
Item:	
Class:	Class 1 / Class 2
Date:	/ /
Appliance ID:	
User ID:	M.C.E.
Visual:	
Earth Current:	amps
<b>Class 1</b> Earth Result/RPE:	Ω
RISO:	MΩ
1 EA:	MA
<b>Class 2</b> RISO:	MΩ
1 EA:	MA
Insulation (500V):	MΩ
Load:	KVA
Leakage:	MA
Polarity (leads only):	