

## SHOP COFFEE GRINDER n°4

### INSTRUCTION AND MAINTENANCE MANUAL



Coffee grinders - Fruit juicers - Mixers - Blenders - Drinks dispensers - Planetary mixers  
Dough mixer - Cheese graters - Ice crushers - Mincers - Vegetable slicers  
Moulins à café - Presse-fruits - Mixers - Blenders - Distributeurs de boissons - Batteurs  
mélangeurs - Pétrin - Râpes à fromage - Broyeurs à glaçons - Hache-viande - Coupe-légumes

MODELES DEPOSES FRANCE ET INTERNATIONAL  
INTERNATIONALLY PATENTED MODELS

## CONTENTS

YOUR COFFEE GRINDER N° 4 .....	3
ELECTRICAL CONNECTION .....	3
Using the COFFEE GRINDER N° 4 (fig. A) .....	4
ADJUSTING THE GRIND .....	4
SERVICING .....	4
REPLACING GRINDING WHEELS .....	4
ADJUSTING THE MINIMUM GAP BETWEEN THE GRINDING-WHEELS .....	4
Safety / Maintenance / Spare Parts .....	6
MOTOR OVERLOAD SAFETY FEATURE: .....	6
MAINTENANCE .....	6
Discharging the capacitor: .....	6
SPARE PARTS .....	6
WARNING .....	6
Troubleshooting .....	7
The machine will not start: .....	7
The machine stops because the motor has overheated: .....	7
The machine stops because of an overload: .....	7
Technical Specifications for your Appliance .....	8
Wiring diagram 100-120V 50/60Hz .....	9
Wiring diagram 220-240V 50Hz .....	10
Wiring diagram 220-240V 60Hz .....	11

## YOUR COFFEE GRINDER N° 4

- The N° 4 coffee grinder is designed especially for hotels, restaurants, community catering, for the drawer version, and for coffee roasters and roasted coffee outlets for the "bag grip" version.
- The robust frame of the appliance is made of cast aluminum and painted metal. The transparent hopper is made of transparent polycarbonate transparent and contains 1 kg beans. The appliance is delivered with a "bag grip" system as standard (maximum bag height: 280 mm), but on request there is also a model with a drawer to collect the ground coffee (capacity 800 g).
- A button for adjusting the fineness of the grind caters for all types of coffee grind (fine grind, espresso, filter coffee, medium or coarse grind).
- The special hardened steel grinding wheels (Ø 63.5 mm) guarantee a fine and even grind.

### **ELECTRICAL CONNECTION**

The appliance's power supply is available in two voltages:

- 220-240V 50 Hz single phase
- 220-240V 60 Hz single phase
- 100-120V 50/60 Hz single phase

Line protection: the appliance should be connected to a standard 2-pole + earth electric socket. The installation should be fitted with an RCD and a fuse rated at 16A.

### **TAKE CARE:**

- Before plugging the appliance in, check that its operating voltage matches your power supply and the value featured on the warranty sheet supplied with the appliance or on the rating plate underneath the appliance.
- If the power cable is damaged, it should be replaced with a special unit available from SANTOS or a SANTOS-approved dealer.

**Note:** You will find it easier to understand the next few paragraphs if you refer to the diagrams at the end of this manual.

## Using the COFFEE GRINDER N° 4 (fig. A)

### ADJUSTING THE GRIND

- Turn the grinding-wheel gap adjuster button **(6)** clockwise for a coarser grind and anticlockwise for a finer grind. The factory setting is for the finest grind, with the grinding wheels nearly touching each other.

### SERVICING

- Clean the coffee outlet, the coffee-bean holder and the grinding mechanism from time to time. Always turn the appliance off, i.e. switch **(13)** on position 0, and unplug it.
- **Cleaning in a jet of water or a high pressure spray is prohibited.**
- The base **(11)** must not be immersed in water.

### REPLACING THE GRINDING WHEELS

**IMPORTANT: always change both grinding wheels (17) at the same time.**

The 2 grinding wheels are identical and can be fitted equally either on the moving plate **(18)** (moving grinding wheel) or on the cast metal adjustment block **(19)** (fixed grinding wheel).

1. Stop the machine by putting the switch **(13)** to "0" and disconnect the power supply cord.
2. Close the shutter **(3)** on the bean hopper **(2)**. Take off the bean hopper **(2)**.
3. Turn the grinding wheel gap adjuster button **(6)** clockwise until it comes to a halt at the "COARSE" setting."
4. Unscrew the nuts **(16)** and remove the whole grinding unit **(15)**, to gain access to the grinding wheels.
5. Change the grinding wheels (3 fastening screws) after carefully cleaning the supporting surfaces.  
***TAKE CARE:** The slightest small coffee particle under the grinding wheel may prevent the machine from operating correctly. It is recommended that the grinder body is cleaned with a compressed air jet or a dry brush.*
6. Reassemble the grinding unit **(15)** and adjust the grinding gap to its minimum setting.

### TAKE CARE

- Before tightening the fastening nuts **(16)** on the grinding unit **(15)**, check that the dial **(4)** of the grinding wheel adjuster button **(6)** is set to "COARSE". This precaution is essential to prevent any risk of the grinding wheels being brought too close to each other, which could cause damage to the grinding unit.

## **ADJUSTING THE MINIMUM GAP BETWEEN THE GRINDING WHEELS**

This should be done after replacing the grinding wheels.

1. Plug the appliance in and run it empty.
2. Unscrew hexagon socket screw **(7)** on the dial **(4)** using a 2-mm Allen wrench. Check that the dial **(4)** is free to rotate without turning button **(6)**.
3. Turn button **(6)** anticlockwise until the grinding wheels come into contact (a slight sound of friction will be heard) then back one notch in the reverse direction.

### **ATTENTION**

**This is a delicate operation, and prolonged contact between the grinding wheels should be avoided, since this could damage them.**

4. Turn the appliance off by placing switch **(13)** on "0".
5. Without moving the button **(6)**, place the dial **(4)** on the "FINE" position then tighten the hexagon socket screw **(7)** fully home.
6. Run the machine empty to check that the grinding wheels rotate without touching each other on the finest setting. If this is not the case, repeat the above procedure.

## **Safety / Maintenance / Spare Parts**

### **MOTOR OVERLOAD SAFETY FEATURE:**

If the motor is blocked (foreign body, something too hard), the excess current protection device **(14)**, located under the appliance will be triggered automatically and cut off the electrical power to the motor.

- Set the On / Off switch **(13)** to "0" position, disconnect the appliance.
- Correct the fault, then press the excess current protection button **(14)**
- Press the On/Off switch **(13)** (position I).

If the problem persists, switch off the power supply to the machine (unplug the cord from the mains socket) and call in the maintenance service or contact a SANTOS approved dealer.

### **MAINTENANCE**

Before carrying out any work on the appliance, it must in all cases be unplugged from the mains power supply and the motor start capacitor discharged.

#### **Discharging the capacitor:**

Use a screwdriver with insulated handle to touch the 2 connectors on the capacitor (13). An electric arc should be produced, showing that the capacitor has discharged.

### **SPARE PARTS**

**IMPORTANT:** It is prohibited to use spare parts other than those certified made by SANTOS

This machine requires no particular maintenance because the bearings are lubricated for life.

If servicing is necessary to replace any parts such as the electrical components, seals or any others, refer to the list of components (see the exploded view at the end of the manual).

For **any orders for spare parts** (see the references on the exploded view at the end of the manual), quote:

1. **the type,**
2. **the appliance serial number**
3. **and the electrical specifications noted underneath the appliance.**

### **WARNING**

1. **Never use this machine to grind anything other than roasted coffee beans.**
2. **Remove from the coffee beans any foreign bodies which may damage the grindstones (metal staples, stones, etc.).**

## Troubleshooting

Identify the exact reason the appliance stopped.

**In every case:** If the problem persists, switch off the power supply to the machine (unplug the cord from the mains socket) and call in the maintenance service or contact a SANTOS approved dealer.

### The machine will not start:

- Check: the mains power supply and the condition of the power supply cord,
- Note: the switch should be lit when on the "1" position.
- Check that there are no foreign bodies stuck between the grinding wheels.

### The machine stops because the motor has overheated:

(the metal casing around the motor unit is hot)

#### ***Models 110-120V 50/60Hz only***

In the event of overheating, the motor stops.

The overheating protection system resets automatically; wait for the motor to cool (15 to 30 minutes), before restarting the machine.

### The machine stops because of an overload:

If the motor is blocked (foreign body, something too hard), the excess current protection system **(14)**, located under the appliance will be triggered automatically and cut off the electrical power to the motor.

- Set the On / Off switch **(13)** to "0" position, disconnect the appliance.
- Correct the fault then press the excess current protection button **(14)**
- Press the On/Off switch **(13)** (position I).

If the problem persists, check the following points:

- Check that the grinding wheels do not touch each other.
- Check the state of wear of the grinding wheels (grinding too fine with worn grinding wheels can result in a motor overload like this)
- If there are no foreign bodies preventing the appliance from working, then check and replace the motor starter relay then the capacitor.

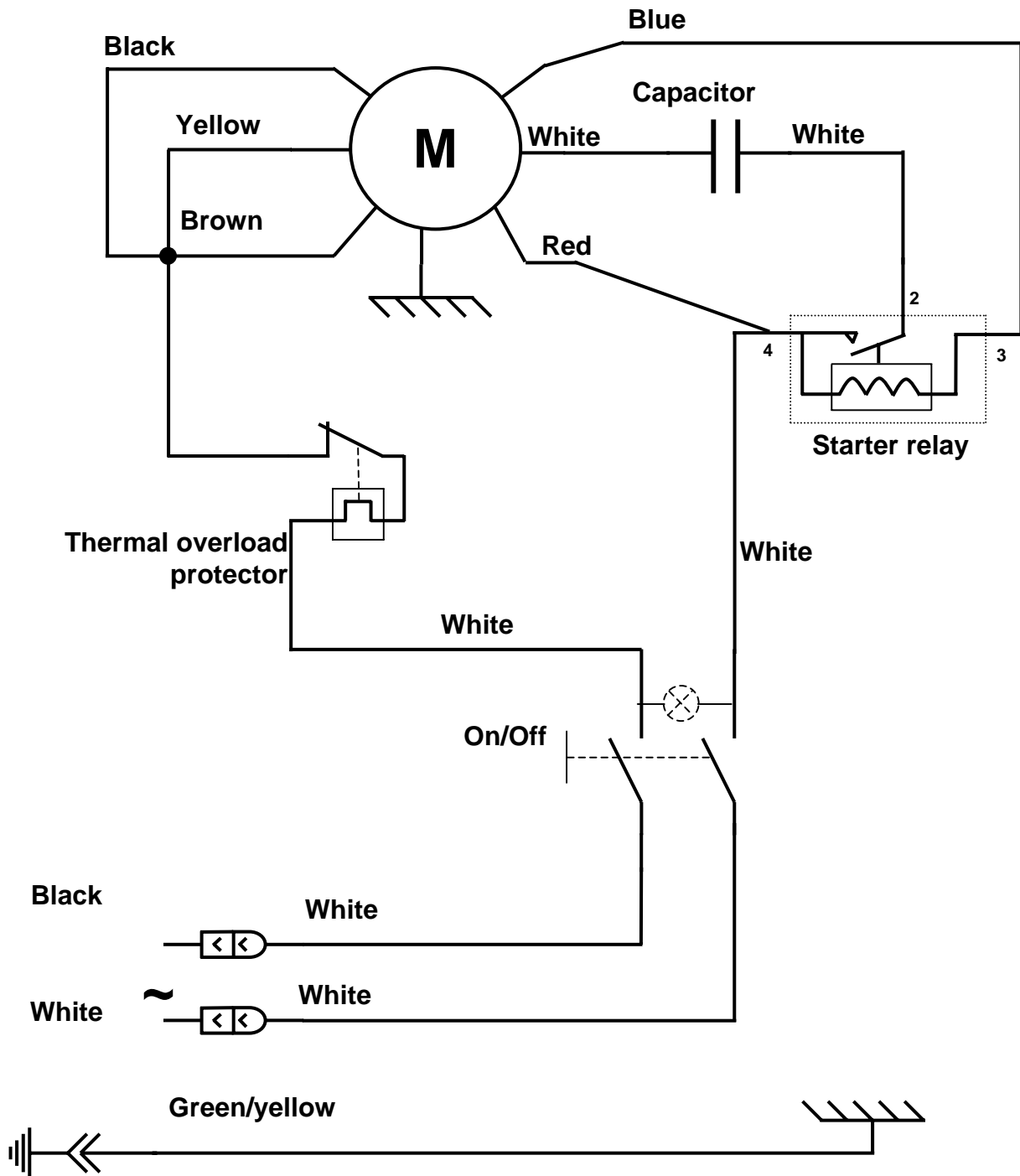
## Technical Specifications for your Appliance

ELECTRICAL SPECIFICATIONS (1)				
Model n° 4		Single phase		
Supply voltage	(V)	220-240	100-120	220-240
Frequency	(Hz)	50	60	60
<b>Motor:</b>				
Power input	(W)	600	650	650
Speed	(rpm)	1500	1800	1800
Average capacity	(kg/h)	14		
Hopper capacity	(kg)	1		
Maximum bag height	(mm)	280		
Dimensions: Height	(mm)	700		
Width	(mm)	220		
Depth	(mm)	320		
Weight: Net weight	(kg)	19		
Packaged weight	(kg)	20,4		
Noise: (2)	(dBA)	74		

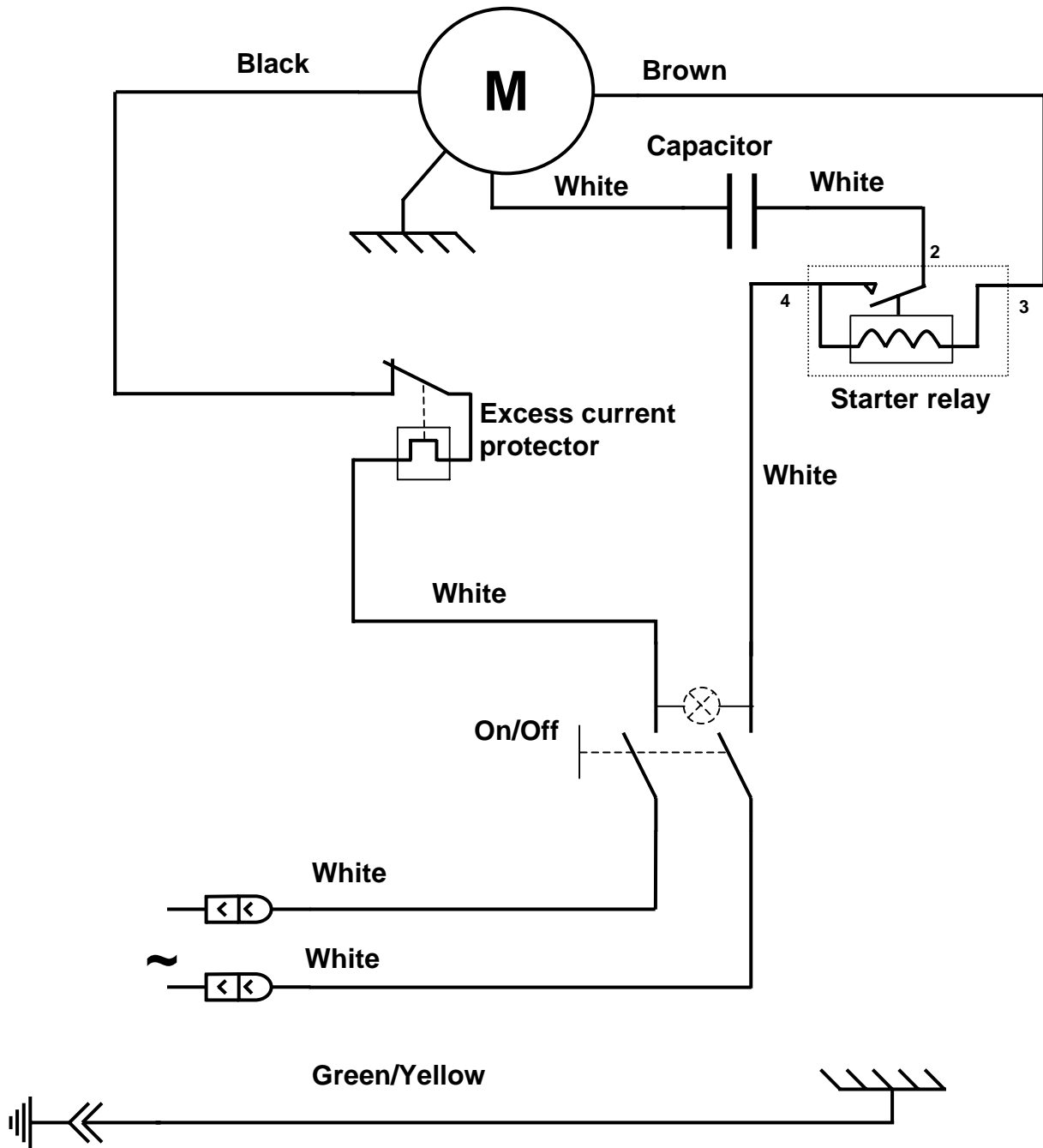
(1) These ratings are provided as a rough guide. The exact electrical specifications for your appliance can be found on the rating plate.

(2) Noise level measured with sound pressure appliance in operation 1 m from its centerline in accordance with standard EN 31201.

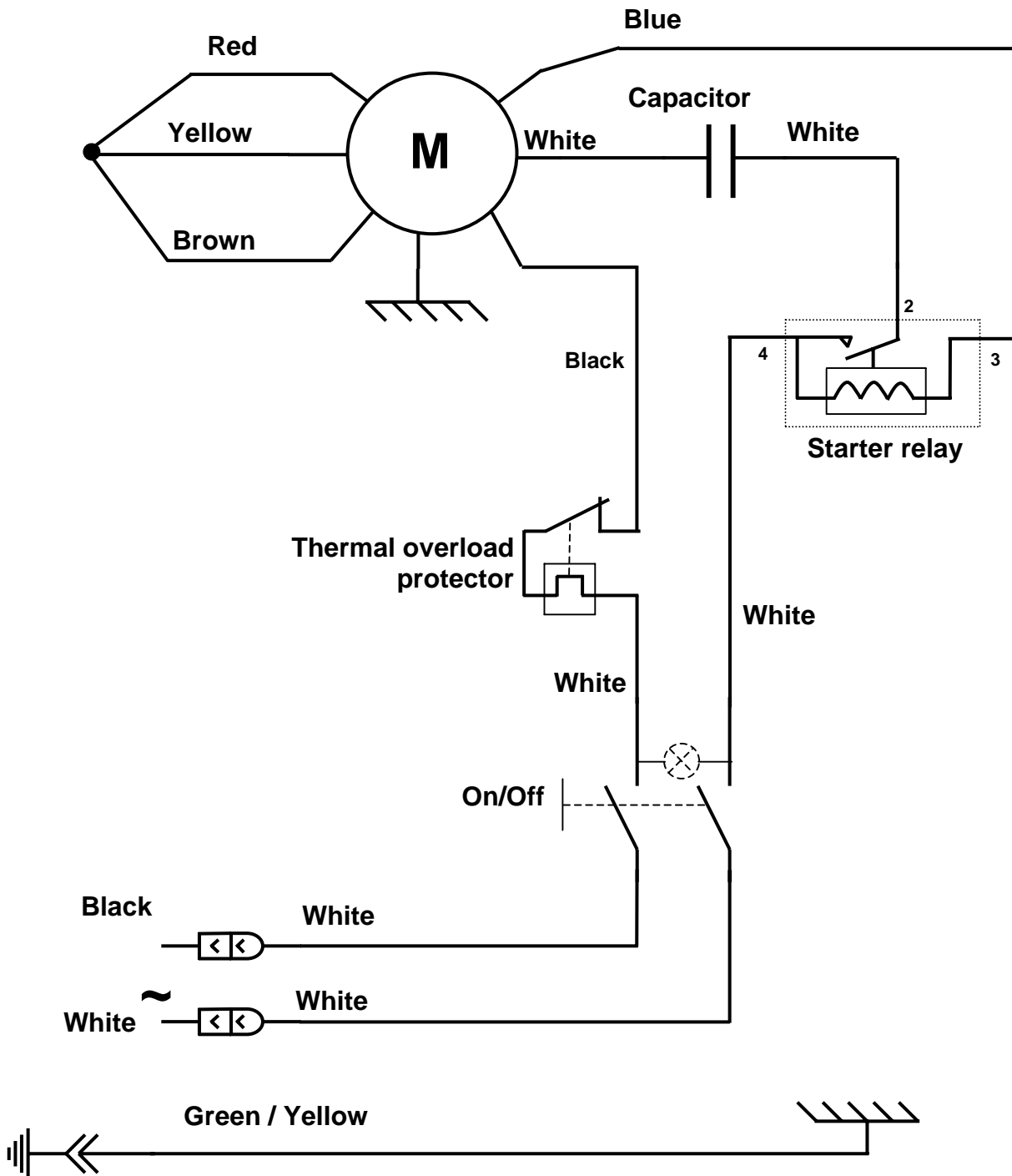
**Wiring diagram 100-120V 50/60Hz**



Wiring diagram 220-240V 50Hz



**Wiring diagram 220-240V 60Hz**



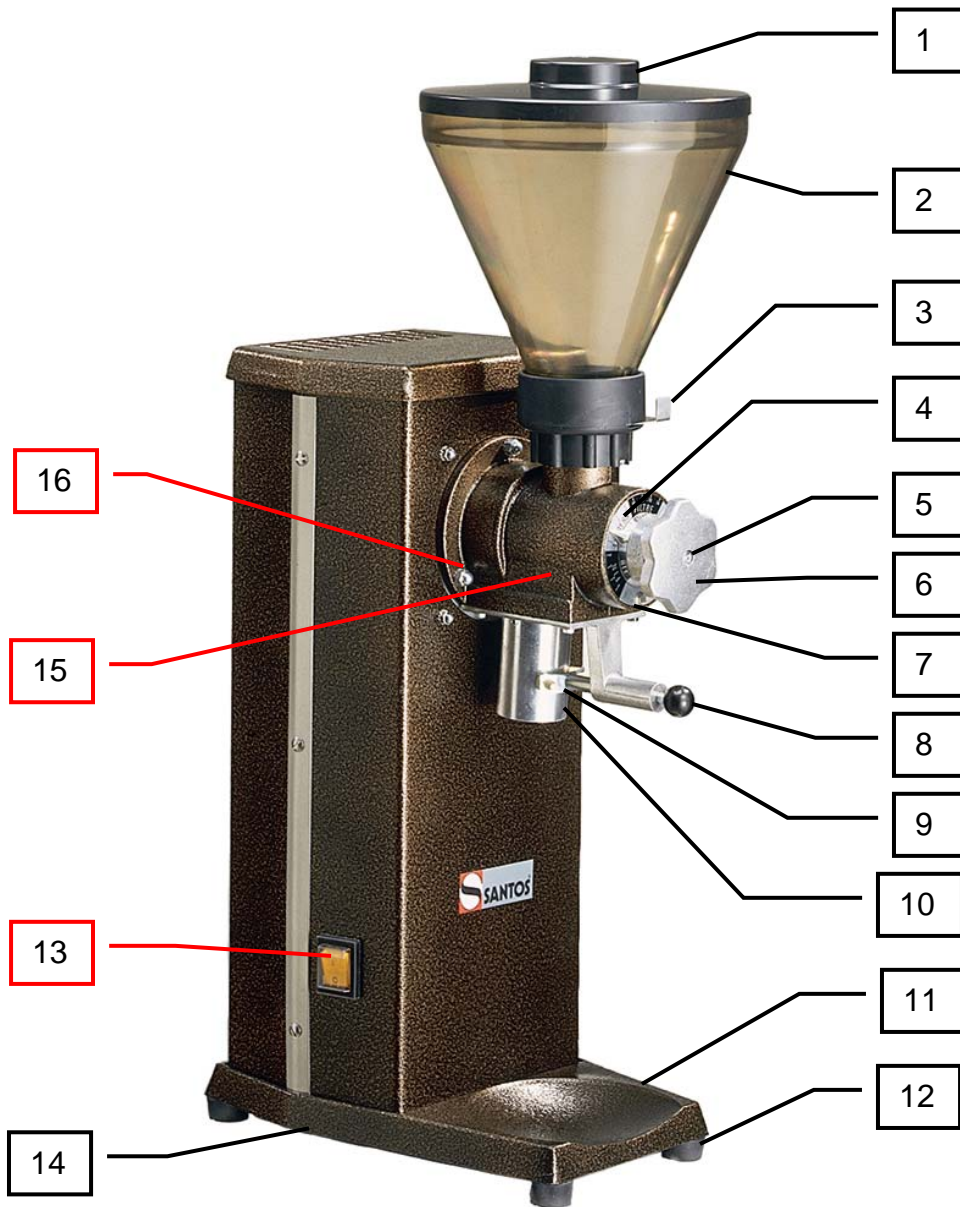
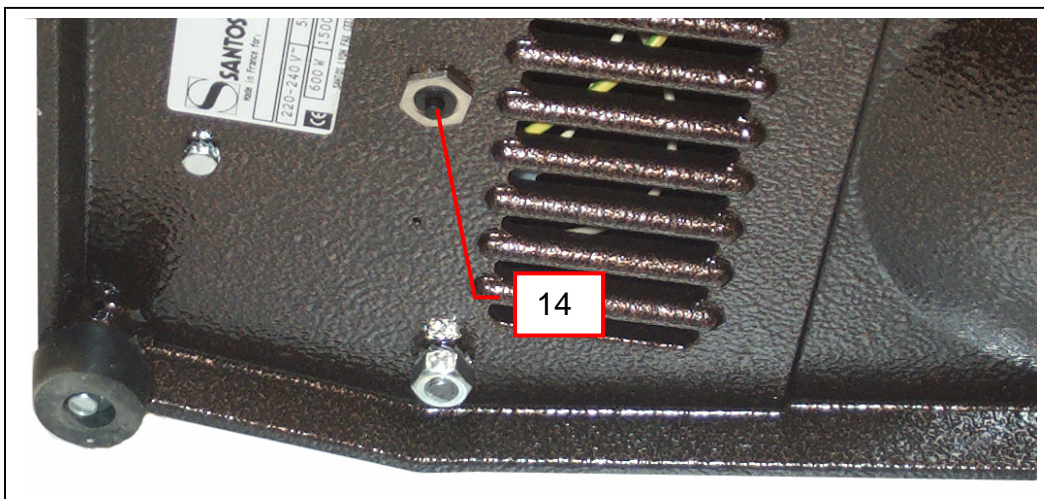
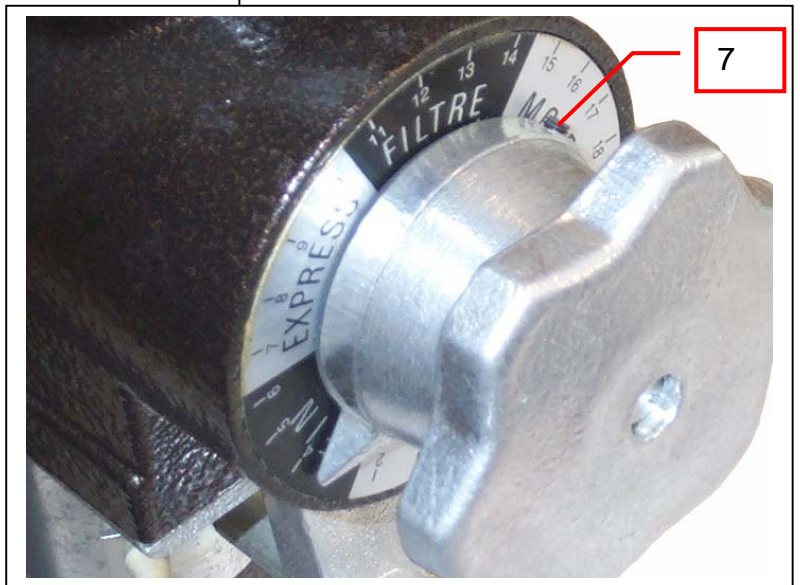
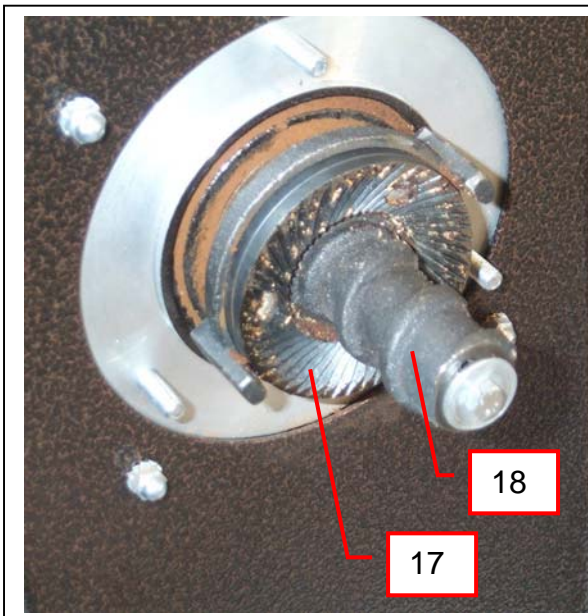
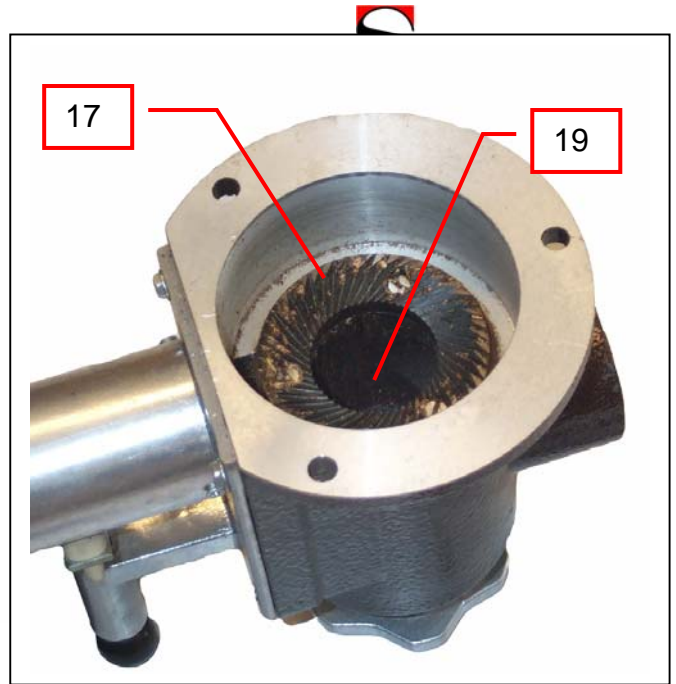
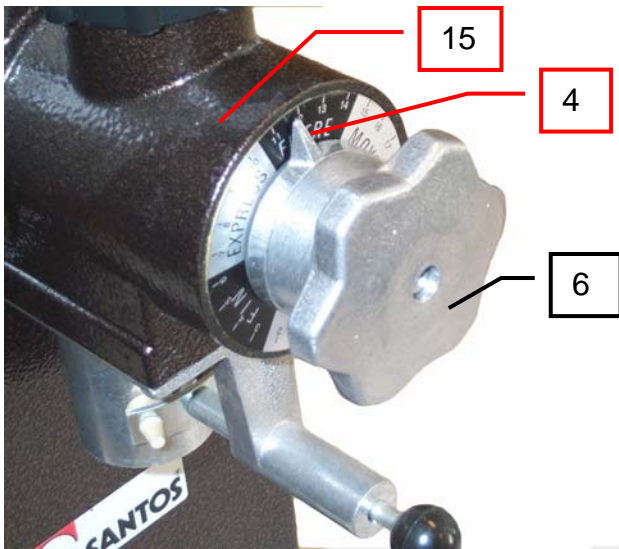


FIGURE A



ITEM	Description
1	Bean hopper cover
2	Bean hopper
3	Bean hopper shutter
4	Adjusting dial
5	Adjuster button attachment
6	Grinding wheel gap adjuster button
7	Dial fastening screw
8	Bag grip cord
9	Bag grip strap
10	Grind outlet tube
11	Base
12	Non-slip feet
13	On-off switch
14	Thermal overload switch, with reset
15	Grinding unit
16	Grinding unit clamp nut
17	Grinding wheels
18	Mobile grind wheel carrier plate
19	Fixed grind wheel carrier plate