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Specialty Equipment – Stone Melangers

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Instruction Manual

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USAGE:

1. After making the connections as above, turn on the power to the Spectra Speed Controller by turning on the on/off MCB switch. The display shows “rd 0”.
2. Press the green start button to start the machine. The display will show “SP xxx” where xxx is the motor rpm.
3. Turn the knob to adjust the speed of the motor as indicated by the speed display in RPM. The speed can be adjusted to any speed from zero to maximum.
4. To stop the melanger, turn down the knob to zero speed, or simply turn-off the green button.
5. Disconnect power by turning OFF the MCB switch.

WARNING: THIS APPLIANCE MUST BE EARTHED

NOTE: CONNECT MACHINE BEFORE TURNING ON SPEED CONTROLLER. TURNING ON SPEED CONTROLLER WITHOUT CONNECTING TO THE MACHINE WILL SHOW ERROR CODE ON DISPLAY.

INTRODUCTION

Dear Customer,

Thank you for selecting a Spectra product

You have just bought yourself a special machine in the form of a Spectra appliance.

Your equipment has been manufactured with best quality material and with emphasis on stringent quality control.

Since 2005, we sell our products worldwide and do our utmost to assure quality, performance, after sales service and customer satisfaction.

If, however, for any reason, you feel something is lacking, we are always there at your service. Please do not hesitate to contact us anytime with your query or issue at:

SPECTRA

763 (old 480) Avinashi Rd, Coimbatore 641004, TN, India

Tel: +91-422-4518380

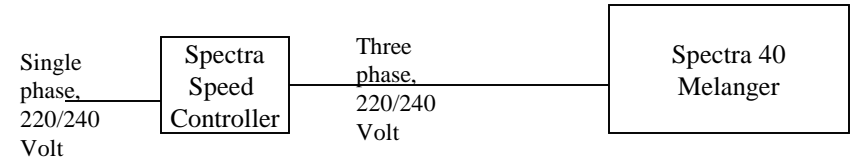
Email: info@SpectraPlaza.com (contact Kumar)

www.SpectraPlaza.com

Thanking you again for buying a Spectra product.

SAFETY

1. As with any electrical product, do not allow the unit to be close to splashing water or wet work areas.
2. When necessary, always use a qualified electrician to make any electrical connections if need be.
3. While under operation, the unit contains moving parts which can potentially injure your fingers or hands. Do not place your hand inside the drum while the unit is in operation. Always use the spatula provided along with the unit instead.
4. Keep the unit away from Children at all times, and especially while under operation.
5. Keep the wrapping and packaging material away from children to avoid risk of suffocation and choking.
6. Dispose of the wrapping and packaging material in accordance with your local laws and keeping the safety of the environment in mind.
7. We never recommend leaving any machine running completely unattended at any time.
8. The rollers stones are heavy and can roll off counter tops and cause injury. Please take care to avoid such accidents.



SPECTRA SPEED CONTROLLER (SSC)

The Spectra SSC is an Industrial grade heavy-duty Speed Controller accessory to conveniently set the rotating speed. Only melangers specifically designed to work with SSC can be used. All melangers will not work with the SSC.

Due to varying plug and socket types in different countries, the units are shipped from the factory without any plugs. You would have to arrange for a trained electrician to make the necessary electrical connections and add plugs.

CONNECTIONS:

1. Connect inlet wire to the speed controller unit to a 220/240V , 50/60 Hz, single phase voltage supply. Use following color codes for the SSC input:

RED wire	– phase
BLACK wire	– neutral
GREEN / YELLOW wire	– earth

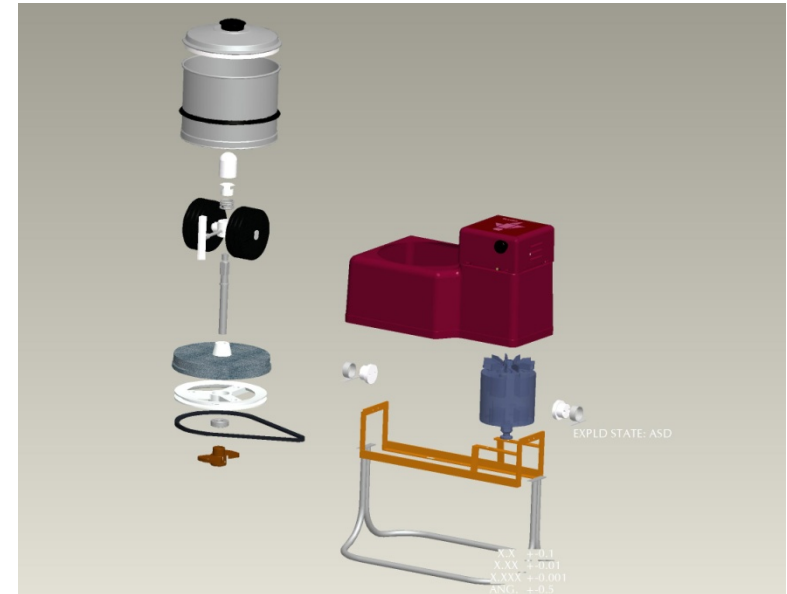
2. Plug in your melanger plug to the output socket on the controller unit, marked as 3 phase output. The wiring code is as follows and comes prewired and with a unique plug:

RED wire	– phase
BLACK wire	– phase
BLUE wire	– phase
YELLOW or GREEN wire	– earth

IMPORTANT : For a 3 phase motor, after making connections, make sure that the drum is rotating in a clockwise direction. Interchanging any two of the phase wires will change the direction of rotation of the motor and therefore, of the drum.

3. Earth connection is always colored either black or green. The earth wire of the melanger should be connected to the top pin of the plug/socket. If in doubt, always have a trained electrician make these connections.

BASIC PARTS LIST



This is a generic diagram that is applicable to most models and intended only to show the basic principle of parts assembly. This is not particular to any particular model and is a general representation.

WHEN YOU UNPACK THE FIRST TIME

- Run the machine with a little food material for about 10 minutes and throw away the contents. Rinse, and the machine is ready to use.
- Any damages or issues should be brought to the notice of the seller immediately and the delivering freight company notified. Please keep all packing materials intact for inspection.
- If you notice any minor chips or imperfections at the edges of the two roller stones, that is normal and part of the manufacturing process. It will not affect the performance of the machine.

TIPS ON USING THE STONE MELANGER

- As far as possible, start the Melanger with only a little or no material, and progressively add more. This will avoid overloading the unit.
- Do not make the contents too watery to avoid spilling and splashing
- Do not add more material than the unit can handle. Use several smaller batches instead.

WARRANTY & SERVICE

Spectra provides the manufacturers limited warranty for all equipment for a period of one year from the date of purchase when used under normal domestic usage conditions. The warranty allows for provision of free spares and parts in case of manufacturing defects. This warranty applies only within mainland India and mainland United States.

Equipment purchased or delivered to customers in Hawaii, Alaska, Puerto Rico, Mexico and Canada or any other country are not covered by the manufacturers warranty. Products purchased outside the United States are not covered in the USA. A store receipt or any other proof of purchase must be available to avail the warranty.

Products out of warranty or purchased outside of the United States can be serviced at a minimal charge.

Please do not hesitate to call or email us for any additional warranty details.

Spectra does not recommend customers to open and/or service the equipment themselves. Customers are strongly urged that only authorized service agents or certified electricians be the only ones to service the electrical appliances. Opening the products without the express written instructions from the company voids any warranty on the products.

SPECIFICATIONS

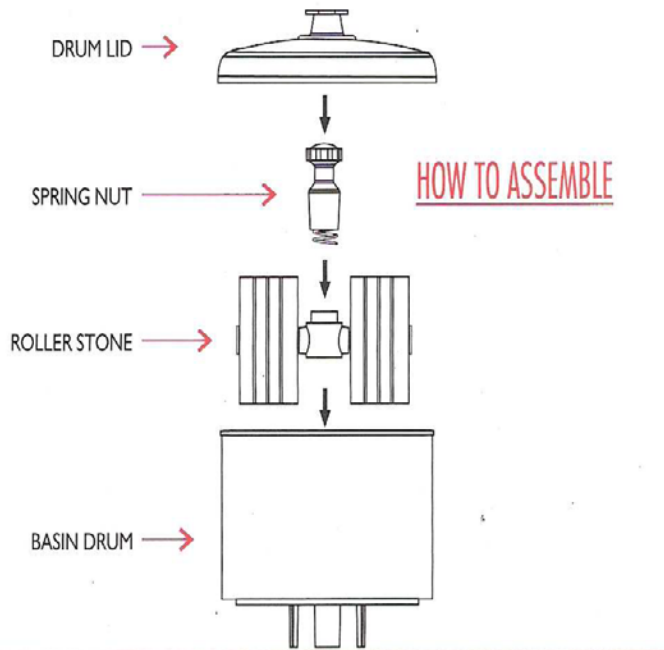
NOTE: The following manufacturing specifications are subject to change at any time. For most update details, please check our website or write to us.

Model	Approx. Machine Weight Lbs	Approx. Machine Size Inches	Electrical Specifications
Spectra 11	40	20x12x11	110 or 220 V 200 Watts
Spectra 11 SC	60	20x12x11	220 V 50-60 Hz 300 Watts
Spectra 20-C	100	28x19x29	220 V 50-60 Hz ½ HP, 750 Watts
Spectra 40-C	250	31x22x30	220 V 50-60 Hz 2 HP, 1500 Watts
Spectra 65-C	275	31x23x34	220 V 50-60 Hz 2 HP, 1500 Watts
Spectra 100C	400	32x27x51	220 V 50-60 Hz 2 HP, 1500 Watts
Speed Controller Unit	20	8 x 8 x 8	220-240 Volt 50-60 Hz Input Single Phase

CLEANING & MAINTENANCE

- Maintaining your Stone MELANGER is easy and quick, when promptly cleaned after each use.
- Simply pour about warm water in the drum upto a 1/5th level, close the lid and let the unit run for a few seconds. Remove the water and repeat steps until clean, or wash the drum under running water in a sink.
- The drum and all other parts are NOT dish washer safe and NOT Oven safe, and should not be used with hot water.
- For the rollers, spring and the lid, remove and place under a tap and clean with a soft scrubber.
- Clean the outer body with a soft sponge with water and mild detergent. Do not use any industrial cleaners or strong detergents.
- When not in use, allow the drum to dry thoroughly before closing the lid and storing.

OPERATING THE SPECTRA STONE MELANGER



BUILT-IN PROTECTION

CIRCUIT BREAKER

(OVERLOAD RELAY FOR ELECTRICAL MOTOR PROTECTION)

On some models only, we have provided a Circuit Breaker (CB).

Sometimes, due to overloading of the machine or due to voltage fluctuations, the motor may get overloaded and eventually burn out.

In order to protect the motor, we sometimes provide a special overload relay known as a Circuit Breaker (CB). This CB works just like a common fuse.

In case of an overload, the CB will trip automatically, cutting off the power supply to the motor and thus protecting it.

In this case, switch off the machine, allow to cool for about 10 minutes, and also identify and reduce the load on the machine if required. Then, press the button of the CB and then switch on the machine and restart the machine.

THERMAL OVERLOAD PROTECTOR

(OVERLOAD RELAY FOR THERMAL MOTOR PROTECTION)

On some models only, we have provided a Thermal Overload Protector.

Sometimes, due to overloading of the machine or due to voltage fluctuations, the motor may get overheated and eventually burn out.

In order to protect the motor, we sometimes provide a special overload relay known as a Thermal Overload Protector (TOP).

SPECIALLY FOR CHOCOLATE ENTHUSIASTS

Q: I added just a tiny amount of honey to my recipe (maybe a teaspoon), but now my chocolate is this thick fudge like mess.

A: You can not add ANY water based ingredient or your chocolate will seize.

Q: I mixed up one of your recipes for milk chocolate. It was dry and crumbly. I added it to the Melanger but it just stuck to everything and clumped up until the motor stopped.

A: Go read again how to add ingredients. The Melanger can do many things and is quite up to the task of refining chocolate, but you can not just throw everything in and walk away. In general, if your mixture is crumbly or too thick, you either need to add more cocoa butter (melted), less sugar or maybe just a little heat to melt the cocoa butter that is present (cocoa liquor is 50% cocoa butter).

In general, if you refining mixture isn't "flowing" like melted chocolate then something is wrong and needs to be addressed.

OPERATING THE STONE SPECTRA MELANGER

- Insert the drum unit and slightly twist and check if the drum unit settles properly into the base. (This is only for Spectra 11 model. Skip this for all other models since the drum cannot be removed from the machine)
- Place the roller stone assembly, followed by the spring and tighten the top nut.
- The Top nut may be fully tightened or loosened a bit depending on the tension needed. For coarser products, the tension may be reduced by loosening the nut, and for finer products and grinding, the tension may be progressively increased by tightening the nut.
- Connect the power cord to an AC outlet of suitable voltage. (In case of using with Speed Controller please read the corresponding sections)
- Switch on the machine and slowly add the material to be ground, a cup at a time.
- After the material has been ground, switch off the machine, remove the roller stones and set aside, and then remove the drum (or tilt on tilting models) to collect the ground material.

ELECTRICAL CONNECTIONS

As these machines are exported around the world, and due to varying plug and socket types in different countries, the Spectra melangers are shipped from the factory without any plugs (or with a plug used in India or USA). You would have to arrange for a trained electrician to make the necessary electrical connections and plugs to be added.

WARNING: THIS APPLIANCE MUST BE EARTHED

FOR MODELS WITHOUT Spectra SSC Speed Controller:

The wiring code generally is as follows:

For **SINGLE PHASE 110 OR 220 VOLT MOTOR** models:

RED wire	– phase
BLACK wire	– neutral
GREEN wire	– earth

FOR MODELS WITH SPEED CONTROLLER : See Section on Speed Controller

SPECIALLY FOR CHOCOLATE ENTHUSIASTS

8. Once your chocolate has attained the level of refining that you desire (taste it - it is your best tool), turn off the MELANGER and pour your chocolate into chocolate molds for storage or proceed directly to tempering and finish molding.

9. Clean the Wet Grinder with hot water, soap and a scrub brush. The shafts that the wheels run on unscrew and should be cleaned (and inside the wheels) after each batch. Make sure you rinse away ALL the soap. Again, the MELANGER parts are NOT dishwasher safe. And of course, do not forget, all parts must be completely dry before you use it again.

Troubleshooting and Frequently asked questions (FAQ)

Q: The cocoa nibs and sugar are just packing down and the rollers are just running on top.

A: You can not just dump roasted nibs and sugar together in the Melanger and expect it to make chocolate. See above for how to add ingredients.

Q: Can the Melanger make liquor out of nibs.

A: Yes it can, but we often find it is more work than it is worth. If you want to try, pre-heat your nibs and refiner bowl and grinding wheels to about 140 F/60 C in an oven. Assemble the Melanger and start it running (it will be LOUD). Slowly add a 4 ozs of nibs. Slow add another pound over the next hour as the nibs start to liquefy. If the nibs start packing down, you are probably adding them too fast. You will probably need to turn off the unit, remove some, and start it again.

SPECIALLY FOR CHOCOLATE ENTHUSIASTS

The use of any of these (or any other ingredient that contains water - we just can not name them all) will most likely cause the chocolate to seize and may damage the equipment. Melangers damaged by the use of any liquid based ingredient is NOT covered by warranty. Use at your own risk.

6 Your chocolate should be "flowing" smoothly over and under the rollers like a liquid. If not, something is not right. Check the Troubleshooting section at the end of this document. It may be as simple as warming your chocolate a little or adding your ingredients a little slower so they have time to incorporate.

The Stone Melanger is meant to be run continuously. This does not mean something can't go wrong, especially when you first get it. In general, we recommend keeping a close eye on it for the first few hours you use it make sure it is running properly. **We never recommend leaving it running completely unattended.**

7. There have been instances that moisture liberated from the chocolate condenses inside the lid within the first 3 to 5 hours of running. This moisture (water) can run into your chocolate and cause it to seize. Either keep a close eye for moisture for 3-5 hours (and wipe it away from the insides of the lid) or initially run the Melanger (3-5 hours) without the lid to allow the moisture to escape.

SPECIALLY FOR CHOCOLATE ENTHUSIASTS

Your SPECTRA 10 or 11 Stone Melanger can refine anywhere from 1 lb to 8 lbs. of chocolate in 8 -36 hours depending on your particular conditions and desires.

Cleaning

When you Melanger arrives it needs to be cleaned of manufacturing dust. You have a couple options.

1) Wipe out the bowl and granite stones with a clean cloth.

Add 1 lb of sugar to the bowl, assemble the unit (as described below) and run for about an hour.

2) If you feel more comfortable washing it, feel free. Hot soap and water are fine. Note: The Melanger parts are NOT dishwasher safe. Wash by hand. The warranty is void if dishwasher washed.

Let COMPLETELY dry before using for chocolate. You can speed the drying by placing your bowl and rollers in a warm (no more than 140 F/60 C) oven for an hour or so.

Refining Chocolate with your Melanger

Make sure your Wet Grinder is ABSOLUTELY DRY when you start.

SPECIALLY FOR CHOCOLATE ENTHUSIASTS

Just a touch of water can ruin the entire batch, seizing and leaving you with a thick fudge like mass that cannot be refined in the Melanger.

1. Place your melted cocoa liqueur into the stainless steel, granite bottomed bowl.
2. Attach the rollers (if the rollers spin free, the rollers are upside down), place the spring on the shaft and tighten down with the cap. Tension is not a particular issue. Screw it all the way down but don't over tighten it as it may break. Likewise, leaving it loose may slow your refining.
3. Turn on the Melanger and slowly add the sugar (and milk solids) and melted cocoa butter your recipe calls for.

Recipe Notes

- Cocoa liqueur contains about 50% cocoa butter and the amount of cocoa butter helps the chocolate "flow" while refining. Too little cocoa butter and the chocolate may clump around the rollers and may even damage the Melanger.
- At a minimum, you want approximately 20% cocoa butter in your final recipe.

SPECIALLY FOR CHOCOLATE ENTHUSIASTS

- For instance, this could be 40% cocoa liqueur/60% sugar or
- 20% cocoa liqueur/10% cocoa butter/35% sugar/35% powdered milk.

The sugar you add should be regular white cane sugar. Do not use "powdered" sugar, this contains cornstarch. If you wish to reduce your refining time a couple hours, a small "whirly blade" coffee grinder or blender works nicely to "powder" your own sugar. 2 minutes pre-grinding the sugar will save you 2 or more hours in the Melanger. If you don't wish to bother, that is fine to - the Melanger will handle crystals of sugar just fine.

4. You may need to add a little heat to the chocolate during the first 1/2 hour or so if you notice that it cools too much and starts to thicken. A standard blow drier (for hair drying) works very well for adding heat.

Alternately, you can pre-heat all of your ingredients in a warm oven to about 140 F/60 C. This will allow the Melanger to work more easily.

5. Other sugars may or may not work due to their moisture content. Brown sugar for instance needs to be dried before it can be used. Malt powder is notorious for holding enough moisture to cause your batch of chocolate to seize.

We specifically DO NOT RECOMMEND the following sweeteners and ingredients for refining with the Melanger:

Honey, Agave syrup, Any syrup, Liquid milk or cream, Condensed milk, Water, Unroasted nuts or unroasted cocoa nibs, Fresh or not fully dried fruits. Powdered Sugar is ok to add.