



Coffee Crafters



Artisan 3-e

3-lb. Commercial Fluid Bed Electric Coffee Roaster
Manual

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Introduction

Welcome to our coffee roasting family!

Your new Artisan 3-e fluid bed electric coffee roaster is the most energy efficient and productive roaster in its class. Your customers will love the clean, bright taste of your fresh hot air roasted coffee without the hydrogen sulfide residue left behind in direct flame gas roasters.

So what's new with the new Artisan 3-e?

- Better airflow
- Increased visibility of the roasting process
- Increased machine cooling for back-to-back roasting
- Increased hourly production

Your new roaster was engineered from the ground up to be easy to install, easy to operate, easy to maintain and affordable.

At Coffee Crafters we don't just sell coffee roasters and green beans. We provide support and educational resources to help you succeed as a roaster and grow your business.

Check out our videos on our YouTube channel to learn more about coffee, roasting and marketing.

The coffee crafters team is eager to help you on your roasting journey.

Happy Roasting

Ken Lathrop

President

Coffee Crafters

Artisan 3e System Including Exhaust Duct Kit & Bean Cooler

Roaster Production	18 lbs perhour
Roast Time	8-12 minutes (manually adjustable)
Chaff Collection	Vent kit with outdoor chaff collector fitting/bag included
Bean Cooling	External 3lb capacity
Roast Air Temperature	Variable manual control Fahrenheit or Celsius
Bean Temperature Thermometer	Included
Roaster Power	30 amp, 240V single phase
Roaster Heat	5200 watts
BatchSize	1/2lb to 3lbs
Venting	Standard 4" metal ducting with 4" discharge

Dimensions & Weight

Roaster/Exhaust Hood	12" wide x 19" deep x 57" tall
Bean Cooler	12" wide x 18.25" deep x 53" tall
Shipping Weight	101 lbs
Shipping Dimensions	2 boxes:
	20"widex25"deepx37"tall(75lbs)
	22" wide x 22" deep x 12" tall (26 lbs.)

Electricity Usage

Full 3 lb. load	0.3 kWh per pound
1 lb. load	0.6 kWh per pound

Certifications

CE
UL
NSF-4

*Roaster comes complete with exhaust hood, bean thermometer, bean cooler and complete vent kit. Optional equipment: Indoor chaff collector and exhaust blower sold separately.

Warranty and Guarantee

Artisan 3-e Warranty

Your Artisan 3-e Roaster has been manufactured and tested to the highest quality standards by Coffee Crafters. This Limited Warranty covers defects in material or workmanship on new Artisan 3-e Roasters. The Warranty extends to the original purchaser only and is non-transferable. Only customers purchasing roasters from Coffee Crafters may obtain coverage under our limited warranty.

Coffee Crafters warrants this product against defects in material or workmanship as follows:

- Under normal installation per Coffee Crafters instructions, use, service, and maintenance for a period of one year from the original purchase date, Coffee Crafters will replace, at no charge, any product or part of the product that proves defective because of improper workmanship and/or material.

The specific warranties expressed are the ONLY warranties provided by the manufacturer. These warranties give you specific legal rights, and you may also have other rights which vary from state to state.

What is Not Covered by the Warranty

1. Conditions and damages resulting from any of the following:
 - a. Improper installation, delivery, or maintenance.
 - b. Any repair, modification, alteration, or adjustment not authorized by the manufacturer.
 - c. Misuse, abuse, accidents, unreasonable use, or acts of God.
 - d. Incorrect electric current, voltage.
 - e. Improper setting of any control.
 - f. Use of risers (pedestals) that are not authorized by the manufacturer.
 - g. The Warranty is void if a product is returned with removed, damaged, or tampered labels or equipment, or any alterations.
2. The Warranty is void if the original serial numbers have been removed, altered, or cannot be readily determined.
3. Chaff Filters
4. Products purchased for use other than roasting coffee.
5. Any food loss due to product failures.
6. Expenses for travel and transportation for product service.
7. Consequential or incidental damages sustained by any person as a result of any breach of these warranties.
 - a. Some states do not allow the exclusion or limitation of consequential or incidental damages, so the above exclusion may not apply.

If You Need Service

1. See the Maintenance/Troubleshooting section of this manual.
2. Visit our YouTube channel to find Maintenance and Troubleshooting videos for tips on fixing/replacing roaster parts
3. If you are still having issues with the roaster, give us a call or send us an email so we can figure out the problem with you.
 - Phone: 509-228-6916
 - Email: info@coffeecrafters.com

30- Day Complete Satisfaction & Money-Back Guarantee

We want you to be fully satisfied with every item that you purchase from Coffee Crafters. If you are not satisfied with an item that you have purchased, you may return the item within 30 days of delivery for a full refund of the purchase price, minus the shipping, handling, or other additional charges. The item must be returned in new condition, in original boxes, and with all paperwork, parts and accessories to ensure full credit.

Return Instructions

Please note: For purposes of tracking and Insurance all returns must be shipped to Coffee Crafters.

1. Contact Coffee Crafters Customer Service Department at 1-509-228-6916 to begin the return process.
2. Pack the item securely in the original package, if possible. Enclose the return portion of the original packing slip with the item.
3. All products must be returned in excellent condition, in original boxes, and with all paperwork, parts and accessories to ensure full credit.
4. All return shipping charges must be prepaid. We cannot accept C.O.D. (cash on delivery).
5. Keep the Return Tracking Number from the package you are returning to ensure that the package is returned to the warehouse.
6. You can expect a refund in the same form of payment originally used for purchase usually within 10-15 business days of our receiving your returned product. Returned funds may reflect charges for incomplete components or damaged materials. Delays may be experienced in the case of incomplete returns. Please note that your shipping costs will not be refunded.

Receipt of Damaged or Defective Items

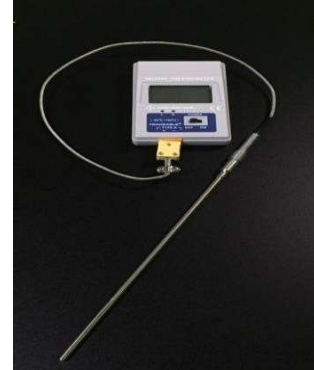
If you receive a damaged or defective item, contact Coffee Crafters Customer Service Department at 509-228-6916. Please supply the Representative with your order number, item number and tracking number from your original confirmation e-mail. The Representative will also need your e-mail address and phone number. We will make every reasonable effort to assist you with your return. If you do not contact Customer Service, you are responsible for all return shipping charges.

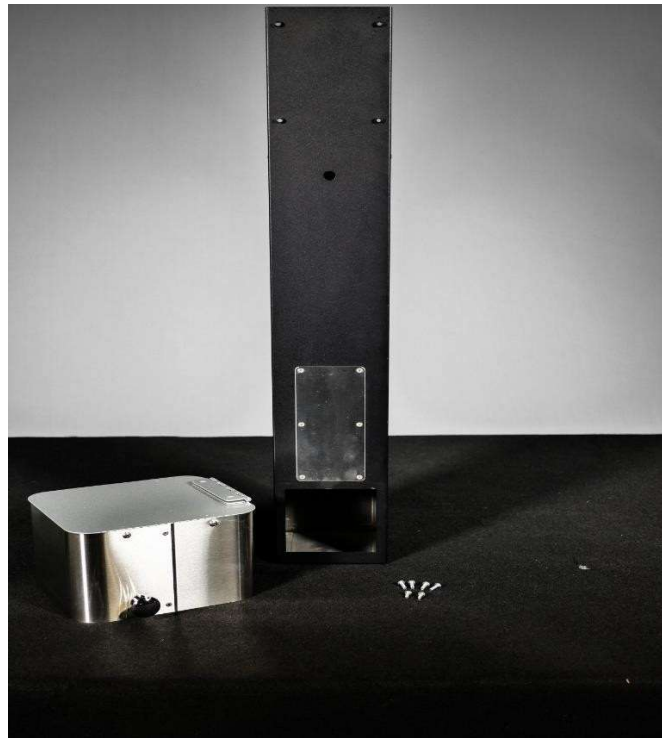
A defective item may be repaired or replaced within 90 days of purchase under Coffee Crafters Warranty.

Assembly and Installation

Assembly Introduction

Your Artisan 3-e roaster comes mostly assembled. The following instructions will help you complete the assembly process correctly. Your roaster comes in 2 boxes. Your boxes should contain the following:





Before you start the assembly process you must select a suitable location for the Roaster and Blower System. The Blower System can be installed in any location within 10 feet of the Roaster including on the other side of a wall. You may prefer this installation method if noise is an issue. The Customer must supply the 4-inch metal flex or rigid ducting from the discharge side of the exhaust blower to the outside. If you decide to put the Blower System in a different location, additional vent pipe and fittings will be required. Make sure to check with local codes for venting requirements as noted in the ventilation installation section of this manual (Maintenance and Troubleshooting pg. 37). When correctly installed, the exhaust gas temperature will not exceed 140° Fahrenheit.

The Roaster must be positioned on a flat smooth surface, do not install on carpeting. Make sure the Roaster has at least a 6-inch gap between the back vent pipes and the wall.

Mast and Hood Attachment

First, attach the mast to the roaster body with 4, 8-32 x ½" zinc screws provided with the mast. After attaching the mast to the body of the roaster, you are now ready to attach the hood.



The hood comes with a hinge on it. You will attach the hinge to the top of the mast using 3, 8-32 " stainless steel screws provided with the hood.



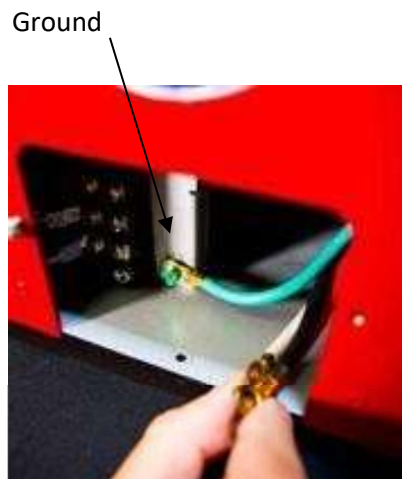
Installing the Electrical Cable

The Roaster must be connected to a 30-amp, 240-volt dedicated breaker. Consult your local electrical codes for proper wire installation. The power distribution block access cover is located on the back of the roaster as shown.

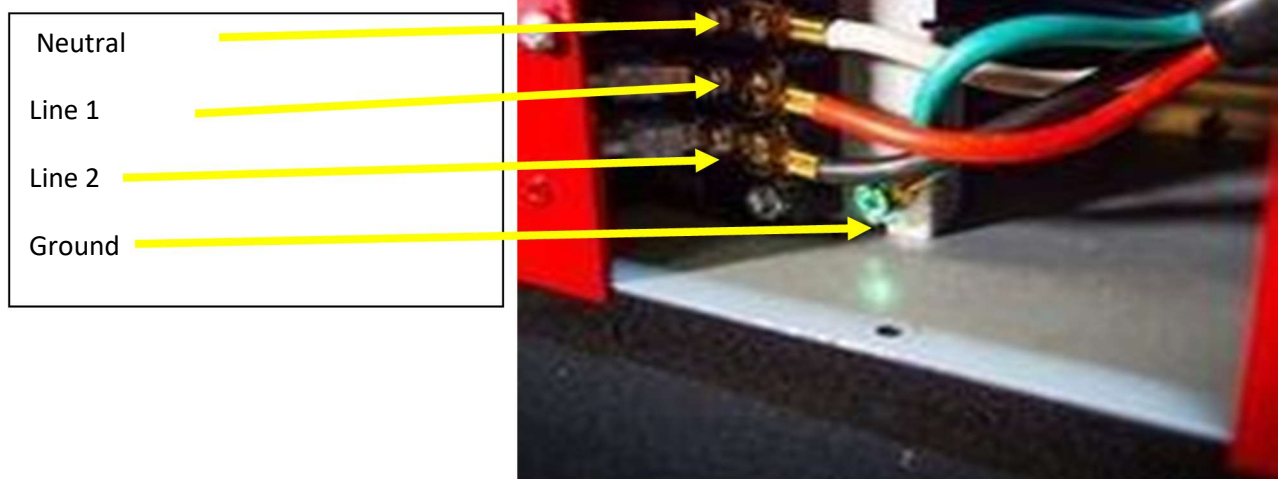
Note: A complete Wiring Diagram is available under Maintenance and Troubleshooting section of this manual. Page 44



Power Distribution Block



Please Note: DO NOT operate the roaster without the electrical cover in place. The roaster will not cool properly during the roast cycle with the cover off.



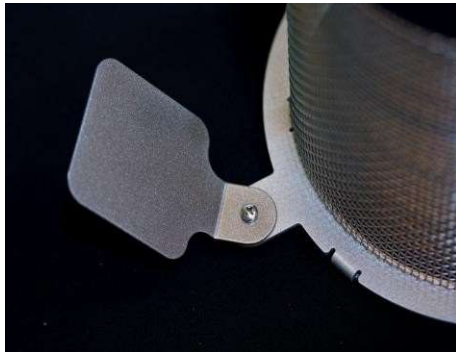
Hopper chaff screen installation

First, you will have to attach the thermometer bracket to the chaff ring with the screw and keps nut provided.

Next, you will attach the chaff screen ring to the top of the Hopper. This is easily done with the hopper sitting on the roast chimney on the top of the roaster. As you face the hopper, on the inside, the thermometer bracket will be on the left side.

Holding the chaff ring in your hand with the thermometer bracket to the left, slide the ring from the front of the hopper to back. Once the ring is in place, use the screw, washer and nut provided to secure the chaff ring onto the hopper.

Note: the chaff screen stays in place during roasting and dumping of the beans.



Next, attach hose to bottom of mast. Insert 4" clamp over end of the exhaust hose, slide hose over the end of the tube on the mast. Slide the clamp into position. Tighten the clamp down once positioned



View of assembled hopper, chaff screen and exhaust hood. Your thermometer may look different.



Bean Cooler Set Up

Take one of the 4-inch hose clamps and slide it over the end of the tubing. Slide the end of the tubing over the metal flange on the bean cooler. Slide the hose clamp over the hose and flange and tighten to hold the tubing into place.



To attach the other end of the tubing to the wye on the blower, do the same thing. Slide clamp over end of hose, slide hose over the end of the wye and then move the clamp into place. Tighten clamp so the tubing stays secure on the wye.

Cooling and Chaff System

Exhaust blower example : (BLOWER NOT PROVIDED WITH PURCHASE)

For this portion of the installation, the roaster is to be placed in its proper operating position.

1. Determine the direction your wye duct will be facing, we are showing it split, right and left for our set-up purposes. It can also face top to bottom.
2. Install the 4x4x4 metal wye duct to the blower motor. Slide the wye duct onto the motor. Use the self-tapping metal screw (provided) to secure the wye duct to the motor.

Note: Your exhaust blower may have a 4", 5" or 6" intake. If you use a blower with a 5" or 6" intake you will need the appropriate wye duct fitting to accommodate your roaster. Your roaster comes with a 4" wye duct fitting.



Discharge



Intake



Flex Tubing

Here is a complete view of the tubing connected to the roaster, bean cooler and blower.

To connect the Flex Tubing you will need four (4) 4-inch hose clamps to complete the hook up.

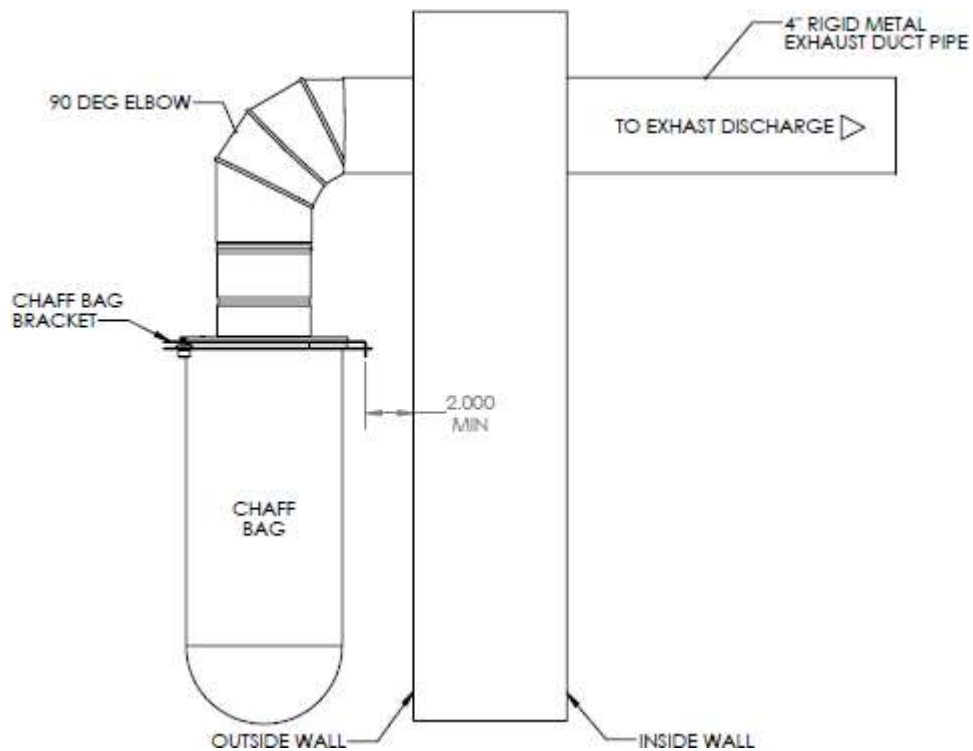
1. Connect the Mast flex hose to one of the 4" wye duct openings.
2. Connect the Bean Cooling unit to one of the 4x4x4 wye ducts on the Blower Motor.



Depending on the floor plan you use, the tubing and wye ducting configuration may look different. Regardless of where you install the Blower, the origin and termination of each exhaust duct hook up will remain the same as shown in the Flex Tubing Diagram.

Chaff Bag Bracket Drawing

Below is the recommended installation of the chaff bag bracket. **Roaster exhaust must be vented to the outside.**



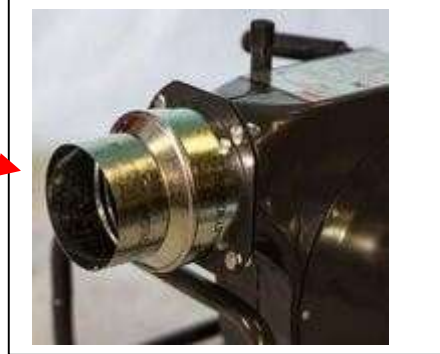
Your bracket comes with the chaff bag installed. To remove dirty chaff bag, loosen the two thumbscrews and remove the chaff bag.



Optional Exhaust System

Coffee Crafters recommends you use rigid ducting when connecting the blower exhaust discharge duct to the building through fitting. 4" or 5" rigid tubing is both acceptable. Make sure and tape all duct joint seams from the exhaust discharge side of the blower to avoid smoke escaping into your roasting area. This part of the system is pressurized and will leak smoke through open seams. For maximum run lengths, consult the next section of this manual for specific ventilation instructions.

NOTE: If you plan to exhaust using a 4" metal dryer ducting, a 5" to 4" reducer is provided.



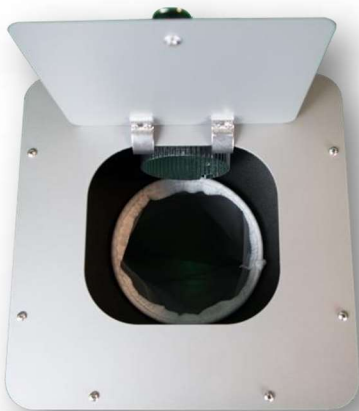
To minimize noise, your blower system may be placed in another room or under a cabinet. For maximum efficiency, the blower should be placed no more than 10 feet from the roaster.

Optional Chaff Collection System (NOT INCLUDED WITH BASE UNIT)

If you purchase the optional chaff collection system, you will be provided two 200-micron and two 400-micron chaff bags. The 400-micron bags work well for dark roasting, allowing more air flow and less chaff powder build up due to the extra oil produced during roasting.

Installing Chaff Bags

Open the chaff chamber lid and insert one of your filter bags. It must sit evenly in the opening to work properly. When installing a new bag reach into the bottom of the bag and push it in place with one hand while positioning the top ring with your other hand. Close the lid before roasting.



View of back of optional chaff collection system installation

Pictured below is the optional chaff bag collection system being used with the Artisan 3-e roaster.

Depending on the floor plan you use, the tubing and wye ducting configuration may look different. Regardless of where you install the blower, the origin and termination of each exhaust duct hook up will remain the same as shown in the flex tubing diagram below.



Ventilation Installation

The Artisan 3-e roaster must be exhausted in accordance with the manufacturer's instructions as documented in the prior section of this manual. The roaster exhaust system must be independent of all other systems.

Exhaust Penetrations

Any wall or ceiling penetration of ducts that transfer roaster exhaust must meet the International Building Code fire-resistance rating and cannot be located within any fire-blocking* and/or draft-stopping* areas, unless such duct work is constructed of galvanized steel or aluminum of a thickness specified in Section 603.3 of the International Building Code and the fire-resistance rating is maintained.

*Fire-blocking: Prevents movement of flame, smoke, gases through concealed spaces. Primarily addresses vertical movement.

*Draft-stopping: Prevents movement of smoke and gasses through concealed spaces. Primarily addresses horizontal movement.

Cleanout

All ducting from the blower discharge to the outlet terminal must have a means for cleanout. Exhaust duct cleaning is required for all coffee roasting installations. Inspect exhaust tubing frequently. Clean or replace if excessive build up is present.

Maximum Run Length for 4" Exhaust Duct

Maximum 4" diameter exhaust run must not exceed 40' (feet) from the exhaust blower to the outlet terminal. For every 45° bend included in the exhaust duct path, 2 ½' (feet) must be deducted from the maximum of 40' duct work. For 90° bends included in the exhaust duct path, 5' must be deducted from the maximum of 40' duct work.

Example: There are two (2) 45° bends included in the exhaust duct path. The total maximum run length for a 4" exhaust duct is now 35' (feet).

Maximum Run Length for 5" Exhaust Duct

Maximum 5" diameter exhaust run shall not exceed 50' (feet) from the exhaust blower to the outlet terminal. For every 45° bend included in the exhaust duct path, 2 ½' (feet) must be deducted from the maximum of 50' duct work. For 90° bends included in the exhaust duct path, 5' must be deducted from the maximum of 50' duct work.

Example: There are two (2) 45° bends included in the exhaust duct path. The total maximum run length for a 5" exhaust duct is now 45' (feet).

Blower Intake to Roaster Ducting

Flexible ducting is acceptable from the roaster/chaff canister to the exhaust blower intake. Flex ducting must be all metal. **DO NOT USE** plastic dryer ducting or aluminum flex duct with plastic liner.

Blower Discharge Ducting

USE ONLY RIGID ducting from the blower discharge to the outlet terminal.

Exhaust Gas Temperature

The exhaust gas temperature must not exceed 170° Fahrenheit (77° Celsius).

Thermometer

Your thermometer will be placed on the Thermometer bracket above the left handle.

The Digi Thermometer is very easy to operate (pictured). The large display makes the bean temperature reading easy to see. There are only a few basic operating functions.

1. To turn the unit on select the ON position.
2. To turn the unit off select the OFF position.

For more information consult the thermometer manual included.



The thermometer comes to you with the battery and thermocouple probe installed and tested. Velcro has been applied to the back of the thermometer. To install it on the thermometer bracket, remove the plastic from the Velcro and install on the bracket as shown in the picture above. The bottom of the thermometer should be even with the bottom of the thermometer bracket. Take the wire from the probe and insert it into the bottom of the thermometer read out. When you turn the thermometer on, it should give you a reading.

Temperature Switch

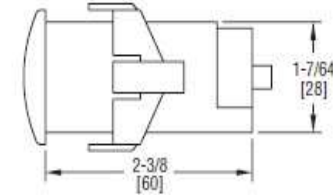
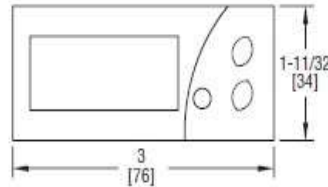
The information contained here originated from the manufacturer, LOVE.

Bulletin E-90-TCS



Series TCS Thermocouple Switch

Specifications - Installation and Operating Instructions



Monitor and control temperature in heating and cooling applications with the Series TCS Thermocouple Switch. The Series TCS offers a wide temperature range, two selectable alarm sets, and an internal buzzer indicating alarm condition or error. The user can define set point, heating/cooling regulation, cycle time, alarm configuration, load status, and ambient probe adjustment. The thermocouple switch features password protection and error/alarm messaging. Temperature and output status is indicated on the bright red LED display. Use the configuration key (sold separately) to quickly program multiple units. The Series TCS includes a fitting clip for panel mounting, gasket, rear terminal cover and instruction manual.

INSTALLATION

Note: Unit must be mounted away from vibration, impacts, water and corrosive gases.

- Cut hole in panel 2.80 x 1.14 inches (71 x 29 mm).
- Apply silicone (or rubber gasket) around the perimeter of the hole to prevent leakage.
- Insert unit into hole of panel.
- Slide removable fitting clips onto unit from the back until secure to panel.
- Remove back cover to wire unit.
- Wiring diagram is displayed on the top of the unit.
- (Note: PROBE CABLE LENGTH MUST NOT EXCEED 238 ft (100 m). DO NOT INSTALL PROBE CABLE NEAR POWER CABLES).
- Replace cover once wiring is complete.

SPECIFICATIONS

Probe Range: 32 to 999°F (0 to 700°C) for Type J thermocouple; 32 to 999°F (0 to 999°C) for Type K or S thermocouples.

Input: Type J, K or S thermocouple.

Output: SPDT relay rated 16A @ 240 VAC resistive.

Horsepower Rating (HP): 1 HP.

Control Type: ON/OFF.

Power Requirements: 115 VAC, 230 VAC, 12 VAC/VDC or 24 VAC/VDC (depending on model).

Accuracy: ±1% FS.

Display: 3-digit, red, 1/2" (12.7 mm) digits, plus sign.

Resolution: 1°.

Memory Backup: Nonvolatile memory.

Temperature Limits:

Ambient: 32 to 158°F (0 to 70°C);

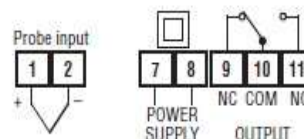
Storage Temperature: -4 to 176°F (-20 to 80°C).

Weight: 2.3 oz (65 g).

Front Panel Rating: IP64.

Agency Approvals: CE, cUR, UR.

WIRING DIAGRAM



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Helpful Tips

1. Wash and completely dry your Hopper and Bean Cooler Tray prior to use. Go to the Maintenance and Troubleshooting section for instructions on proper cleaning of the Artisan 3-e Roaster.
2. A small lamp attached to your Hopper Exhaust Tube and shining into your Hopper will assist in visualizing the roast. DO NOT place the head of the lamp all the way through the chaff guard hole, this will cause the light to melt.

You are now ready to roast coffee!
Proceed to the next section of this
manual for initial testing and roasting
instructions.

Indoor Roasting

Before roasting your first batch of coffee it's important to orient yourself with proper safety procedures. Treat your roaster the same as you would a cook top range. During the roast your roast hopper gets as hot as any pot on your stove. The air that roasts your coffee reaches temperatures over 600° degrees F.

Roast Coffee in 6 easy steps:

1. Check the Chaff bag
2. Turn on Exhaust Blower
3. Load Beans in Hopper
4. Turn on System Power
5. Set Bean Loft
6. Turn on heating element

Check Chaff Bag

Ensure bag is secured in place and less than 50% full before roasting.

Turn on Exhaust Blower

Flip the ON/OFF switch on your blower to ON to start the flow of air for venting.

Disclaimer regarding Warranty

Do not operate your roaster without using the recommended type of exhaust blower. This negligence will void your warranty.

Load Beans in Hopper

Lift the exhaust hood out of the way to pour beans in the hopper. Make sure your air loft adjustment is off prior to pouring beans in the hopper. Pour the beans in the hopper with the provided triangle bean scoop.



Turn on System Power

The system power switch is the single red switch to the left. As a safety feature, the heat element cannot be turned on with the system power switch in the off position.

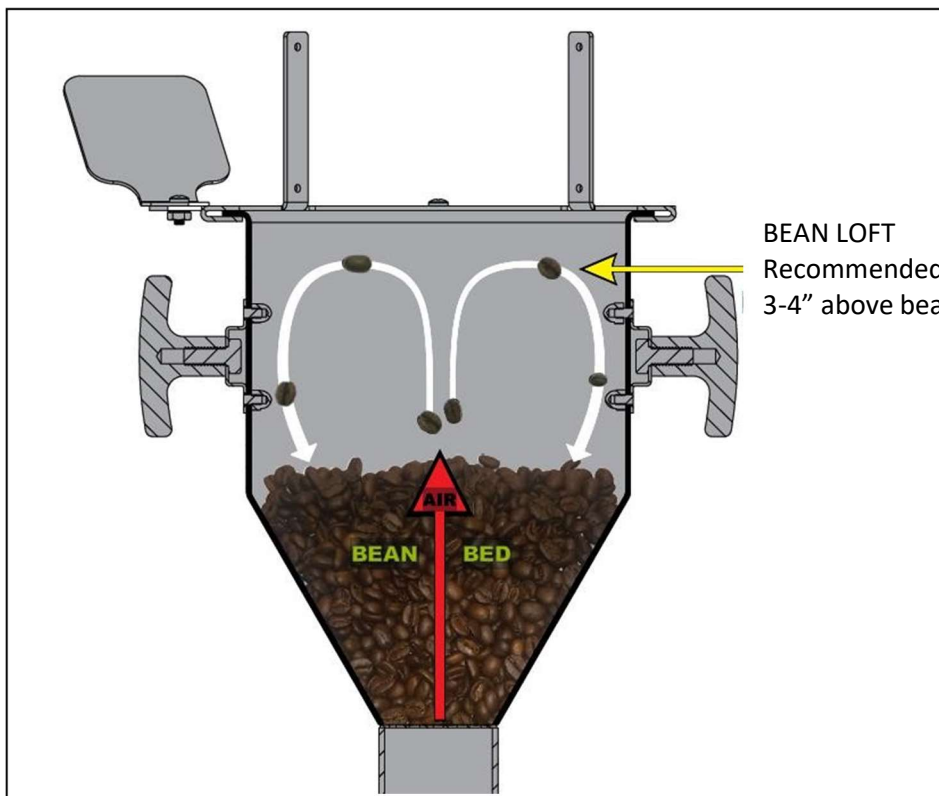


Setting The Bean Loft

The bean loft blower knob is marked low to high. Remember; never turn the system power on until the bean loft knob is turned all the way to the low position. This prevents beans from being blown out of the hopper. Slowly turn up the air by turning the knob clockwise. Practice this several times before turning on the heat to familiarize yourself with the feel of lofting beans.

CAUTION:

Never let the beans stop lofting with the heat element on. You will burn your beans and possibly damage your Roaster.



Turn on Heating Element

1. Turn on the heating element switch.
2. Then use the heat adjustment knob to the right of the Temperature Controller to set the heat for your batch size.
3. Readjust your bean loft if needed. Sometimes the loft decreases after the heat switch is turned on.

Roasting Recommendations:

BATCH SIZE IN POUNDS	HEAT SETTINGS
1 lb	6
3 lbs	10

NOTE: These are only recommendations and may vary based on altitude, humidity, line voltage and ambient air temperature.



As your roast progresses your bean loft will rise because the beans double in size and get lighter. You can progressively turn down the bean loft to maintain 3-4 inches above the bean bed.

You can increase or decrease the heat setting to achieve the roast air temperature you need.

Roasting times may vary due to room temperature or if the machine is warm or cold. Always monitor the batch while roasting, NEVER leave your roaster unattended and watch the bean temperature to achieve the desired roast. You will quickly learn which settings work best for your desired roast profile.

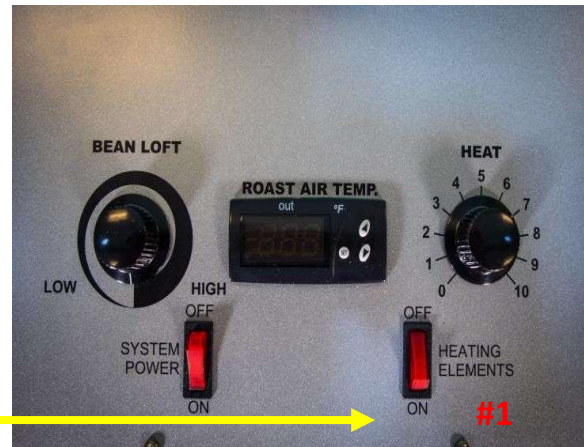
This machine will roast down to 1/3 lb. (6 oz.) of beans. To get an accurate bean temperature reading, the beans must reach the thermometer probe tip.

Roasting on the Artisan 3-e is very easy. Never leave your roaster unattended. If you lose your bean loft, you will ruin your batch and possibly damage your Roaster. Coffee beans can catch on fire if they stop circulating.

Roasting Complete: Lets Cool the Beans

Coffee beans must be cooled quickly after you reach your desired bean temperature. You can see in the hopper as the roast progresses, but a good rule of thumb is to stop your roast a few degrees **before** you reach your desired ending bean temperature. With a light shining in the hopper, the beans look lighter than they do when removed from the hopper.

1. Turn off the Heat element switch.
2. Leave the loft air running to cool the roaster.
Allow the roaster to cool down to 250 degrees before turning off.
3. Pull the Blast Gate knob open on the bean cooler.
4. Lift the exhaust hood out of the way.



5. Removing the Hopper from the Roaster

With the exhaust hood lifted in the upright position, grasp the hopper handles firmly (while wearing the silicone gloves provided) and lift straight up to clear the roast air chimney. Treat the hopper like any hot pan on your stove.

If you touch the hopper with your bare skin you will get burned.

6. Pouring and Cooling the Beans

While grasping the handles of the hopper, begin pouring the beans into the cooling tray.



Turn the hopper completely upside down into the cooler tray and shake to make sure no beans remain in the hopper.

Return the hopper to the roast air chimney. Except for cleaning, your hopper should always be resting on the roast air chimney.



Never place the hot hopper anywhere but on its position on the Roaster.

With the beans in the cooling basket, stir the beans occasionally to evenly distribute the beans over the basket surface out to the edge. As you stir your beans, this is a good time to check for any rocks or foreign objects. Cooling takes about 1 minute for smaller loads and about 2 minutes for larger loads.

After your beans are sufficiently cooled down, pour the cooled beans out of the basket and replace the lid.



You can roast back-to-back on the Artisan 3-e

As soon as you dump the beans in the cooler you can load your next batch of green beans and start your next roast cycle. When your beans are cool, close the bean cooler blast gate knob.

Remember to close the blast gate prior to your next roasting.

Coffee Bean Education

Proper Storage of Green Coffee Beans

The two most important variables for storing your beans are humidity and temperature.

Your green beans will keep for over two years when stored properly.

Some good tips to keep in mind:

- Store beans between 50-85 degrees F (If the temperature is comfortable for you, it's comfortable for your beans)
- If you purchased full bags, keep beans in jute bag they came in for good breathability
- Keep your beans off the ground (keep on a pallet if they were shipped on a pallet). This helps promote all around air circulation and prevents condensation
- Keep away from pets
- Place beans away from sink and water sources

Things to avoid:

- High humidity
- Changes in temperature
- Direct sunlight

If you are purchasing smaller quantities and don't plan on storing your beans for long periods of time; storing your beans in food grade buckets will work well. These Gamma screw lids give an airtight seal and are easy to open/close (available on Amazon).



Another great, but more expensive storage option is to keep beans in vacuum sealed bags. Vacuum packed beans do not need to be monitored as much since they are not exposed to oxygen and atmospheric moisture.

Green Coffee Bean Abbreviations and Meanings

SSFC – Strictly Soft Fine Cup – Grown at relatively low altitudes (under 1200 meters). These beans mature quickly and produce a lighter, less dense bean. This term also means the beans are free of hard rioy taints. Fine cup means it is a specialty grade coffee.

RFA – Rain Forest Alliance – Meets the standards that are intended to protect the environment and the rights of workers.

FTO – Fair Trade Organic – Certified as a fair-trade bean with Organic classification.

FT – Fair Trade – Certified as a fair-trade bean.

EP – European Preparation – These beans are hand sorted to remove any defective beans and foreign material.

SHB – Strictly Hard Beans – Grown at an altitude above 1350 meters.

SWP – Swiss Water Process – Decaffeinating process that includes a “flavor charged” water. 100% chemical free.

MWP – Mountain Water Process – Decaffeinating process that results in flavorful beans that are 99.9% caffeine free.

MC – Methylene Chloride – Used to decaffeinate coffee and some believe it to maintain coffee flavor better than other processes.

EA – Ethyl Acetate – An ester found naturally in fruits and vegetables that is used to decaffeinate coffee.

SHG – Strictly High Grown – This classification is higher than **HB** (Hard bean).

AA – Reference to a 17/18 screen size.

AB – Refers to size. AB consists of both A and B coffee beans; screen sizes 15 and 16. AB are smaller than AA and not as valued.

Fancy – Refers to better quality than average specialty quality for Arabica beans.

17/18 – Refers to screen size. The larger bean size generally correlates to a higher quality bean.

Rioy Taints – Defect in the bean resulted from an over ripened cherry.

Quaker – Defect in bean. Unripe cherry.

Maintenance and Troubleshooting

Maintenance

Your Roaster requires periodic maintenance and cleaning. Maintenance and cleaning will be dependent on the amount of coffee you roast.

Chaff Bags

Every time you roast, inspect the condition of the chaff bag. The suction works best when the bag is less than half full and clean. Empty your bag often. When the bag becomes covered in excess chaff dust, replace with a clean bag. Dirty Chaff bags can be washed with a mild detergent and air dried completely to use again.

If you purchase the optional indoor Chaff Collector unit it can be vacuumed after the chaff bag is removed for cleaning.



Roast Hopper and Screen Cleaning

Remove the Thermometer from the Thermometer bracket. Remove the screen chimney from the hopper for cleaning. Both the roast hopper and screen are dishwasher safe. **If washing by hand be careful not to cut yourself on the thermometer probe bracket.** If washing the screen by hand use a soft brush to avoid cutting yourself on the screen edge. Rinse and dry. You do not want any water to drip down into the heat chamber after you wash the hopper. Replace the screen, thermometer, and probe, being careful to adjust the probe to the proper distance from the hopper wall. A half inch is enough for roasted beans to pass under it. See probe placement diagram for actual dimensions. (Pg. 25)

Bean Cooling Basket

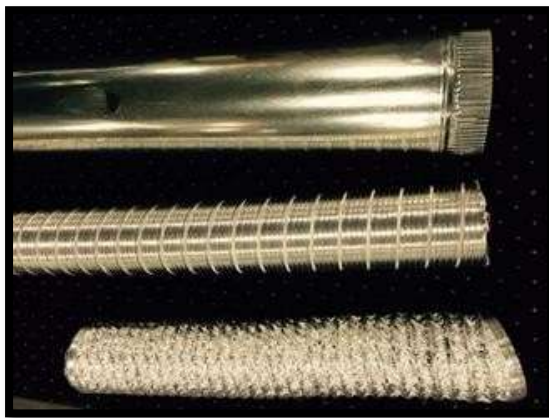
With use, especially with darker roasts, you will notice a buildup of oils inside your cooling basket. Remove the tray and wash with warm soapy water, rinsing and drying well. When the basket is removed from the cooling unit, take this time to clean out any debris that may have fallen into the cooling void under the tray. A vacuum will remove the dust and beans then you can wipe out this area with a damp cloth.

Exhaust Hood and Exhaust Mast

On the underside of the Hood, chaff can collect on the hardware that is used to attach the hood to the exhaust tube. Wiping the inside of the hood with a damp towel will remove any chaff build up.

At this time you can remove your **Hopper Exhaust mast** for cleaning. This cleaning can be done several ways. The easiest being taken outside and the inside of the tube sprayed with a hose. If you cannot do it outside, a bathtub works well. Make sure your exhaust tube is completely dry before reinstalling it.

Exhaust Tubing



← Rigid Tubing

← Semi-Rigid Flex Tubing

← Soft Flexible Tubing

You will need to access the inside of the solid exhaust tubing to be able to run a brush down the inside of the tubing. If you have elbows in your exhaust tube line, you may have to take apart your line to fully clean the exhaust tubes.

After the solid tubing is cleaned, inspect the inside of your blower prior to reinstalling the tubing. **If dirty, disconnect the blower from the power source before cleaning.** Take a brush and go over each fin on the inside of the exhaust blower. Once everything is reattached, turning on the blower will remove the debris. Make sure to unplug the exhaust blower before performing any cleaning and/or maintenance on the exhaust tubing. Depending on how many pounds (lbs.) of beans you roast daily will determine how often you change the soft flexible tubing. The buildup of chaff dust can present a fire hazard. When the inside of the soft flexible tubing is completely covered with dust is a good time to replace it.

CAUTION: DIRTY EXHAUST SYSTEMS CAUSE FIRES

Exterior Surfaces

It is sufficient to clean the lid by wiping down its surface with a damp cloth. **Never** use an overly wet towel to clean the lid. Any excess liquid could damage electrical components.

The body of the Roaster can be washed down with a damp cloth or mild detergent. **Do not** use industrial spray cleaners/degreasers on your roaster.

Troubleshooting

This portion of the manual is intended to provide guidance for roaster owners and qualified repair persons working on the Artisan 3-e

Coffee Crafters roasters were designed from the ground up to be very easy to operate and maintain. All wiring is color coded and labeled. Additionally, videos are available on changing most of the machine components.

Coffee Crafters maintains a full inventory of replacement parts. Please refer to the Parts List section of this manual when ordering. Your machine serial number can be found on the rear panel of the roaster near the bottom. Please include your machine serial number when making inquiries about your machine. Coffee Crafters maintains a history of your machine accessible with your machine serial number.

Exhaust Blower Losing Suction

Problem	Cause(s)	Solution
Exhaust blower starts to lose suction	<ol style="list-style-type: none">1. The chaff bag is dirty.2. An obstruction in the vent pipe.	<ol style="list-style-type: none">1. Replace the dirty chaff bag with a clean one.2. Check the vent pipe from the blower discharge through the through wall fitting. Remove obstruction or replace damaged duct pipe. <p>Note: The most common cause for a loss in exhaust suction is a dirty chaff filter bag. The bag will plug much faster with darker roasts which produces oily residue captured by the bag.</p> <p>The filter bags are machine washable. Check filter bags often and replace when dirty.</p> <p>Clean filter bags reduce exhaust temperature and keep your machine running smoothly.</p>


Bean Loft Motor Won't Run

Problem	Cause(s)	Solution
Bean Loft motor won't start.	<ol style="list-style-type: none"> 1. System power switch is in the "off" position. 2. Faulty system power switch. 3. Debris in system power switch 4. SSR-25VA has failed. 5. Faulty potentiometer. 6. Tripped system power fuse. 	<ol style="list-style-type: none"> 1. Ensure system power switch is in the "on" position. 2. Check system power switch voltage when in the 'on' position. If no voltage, replace switch. 3. Move toggle switch back and forth. Blow out with compressed air. 4. Check SSR-1 voltage output. If no voltage output, replace SSR-1. 5. Check motor speed control potentiometer for linear resistance. If ohms of resistance do not reduce to "0" when potentiometer is turned all the way up, replace potentiometer. 6. Check for tripped system power fuse located on upper left side of machine. Push in the button to reset. If this does not reset the fuse call the manufacturer and or an electrician for assistance.

Heat Element Won't Turn On

Problem	Cause(s)	Solution
Bean loft motor powers up but element won't turn on.	<ol style="list-style-type: none"> 1. Heat element switch failed. 2. Debris in heat switch 3. Temperature controller setting. 4. Faulty temperature controller. 5. SSR-2 has failed 6. Heat element has failed 	<ol style="list-style-type: none"> 1. Replace heat element switch. 2. Move toggle switch back and forth. Blow out with compressed air. 3. Check the roast air temperature control setting. Roast air temperature must be set higher than your desired ending bean temperature. 4. Replace temperature controller. 5. Replace SSR-2 6. Replace heat element <p>Note: The system power switch supplies power to the input of the heat switch when in the "on" position. If the heat element does not come on when the heat switch is turned "on", check the voltage on the output of the heat switch (center terminal). If no voltage, replace switch.</p>

Bean Loft Motor Runs at Full Speed Only

Problem	Cause(s)	Solution
Speed control knob will not reduce bean loft motor RPM.	<ol style="list-style-type: none"> 1. SSR-25VA has failed. 2. Motor speed control potentiometer has failed. 	<ol style="list-style-type: none"> 1. Replace loft speed SSR 2. Replace motor speed control potentiometer. 

Element Running but Roasts Take too Long

Problem	Cause(s)	Solution
Heat element running but roasts taking too long.	<ol style="list-style-type: none"> 1. Ambient air temperature too low. 2. Low line voltage. 	<ol style="list-style-type: none"> 1. Roast smaller loads until you identify maximum load size where machine can reach optimum roast air temperature. 2. Install a buck boost transformer. <p>Note: Roasting in cold environments below 50° Fahrenheit will increase roast times. We suggest roasting in an enclosed, heated environment in cold weather.</p> <p>The roaster does not perform well below with line voltage below 215 (under load). If you confirm that the heat element is running but have trouble achieving your desired roast air temperature with full loads, have a qualified electrician check your line voltage under load.</p>

Figure 1.1

Image of the lid up, exposing wiring.

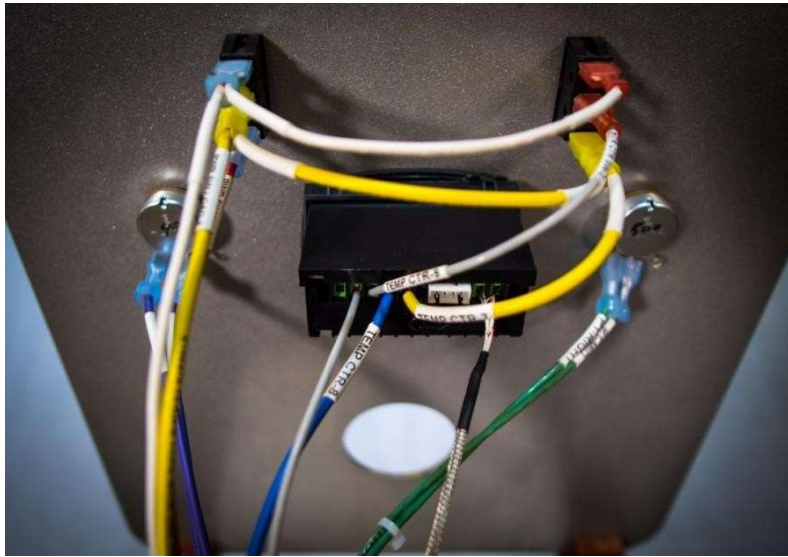


Figure 1.2

Wiring connection of controllers underneath the lid.

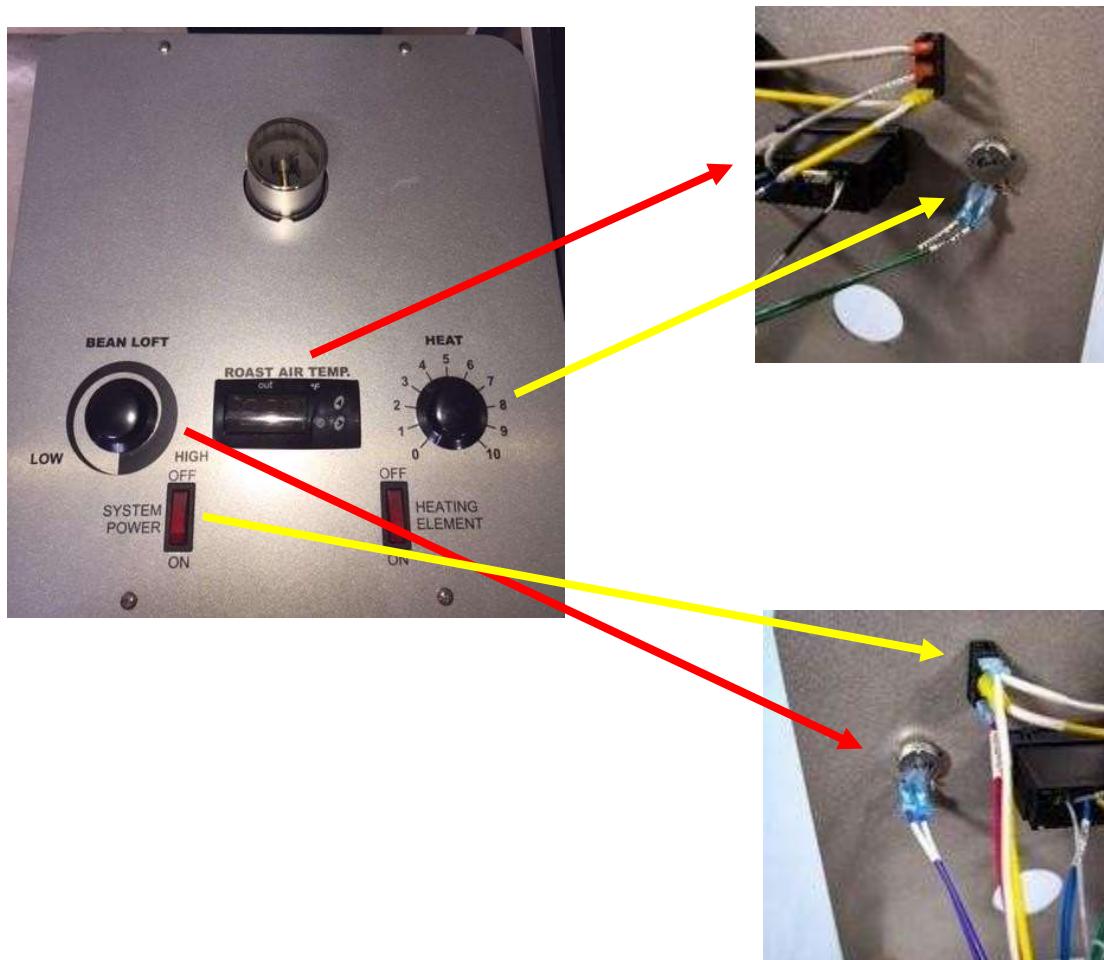


Figure 1.3

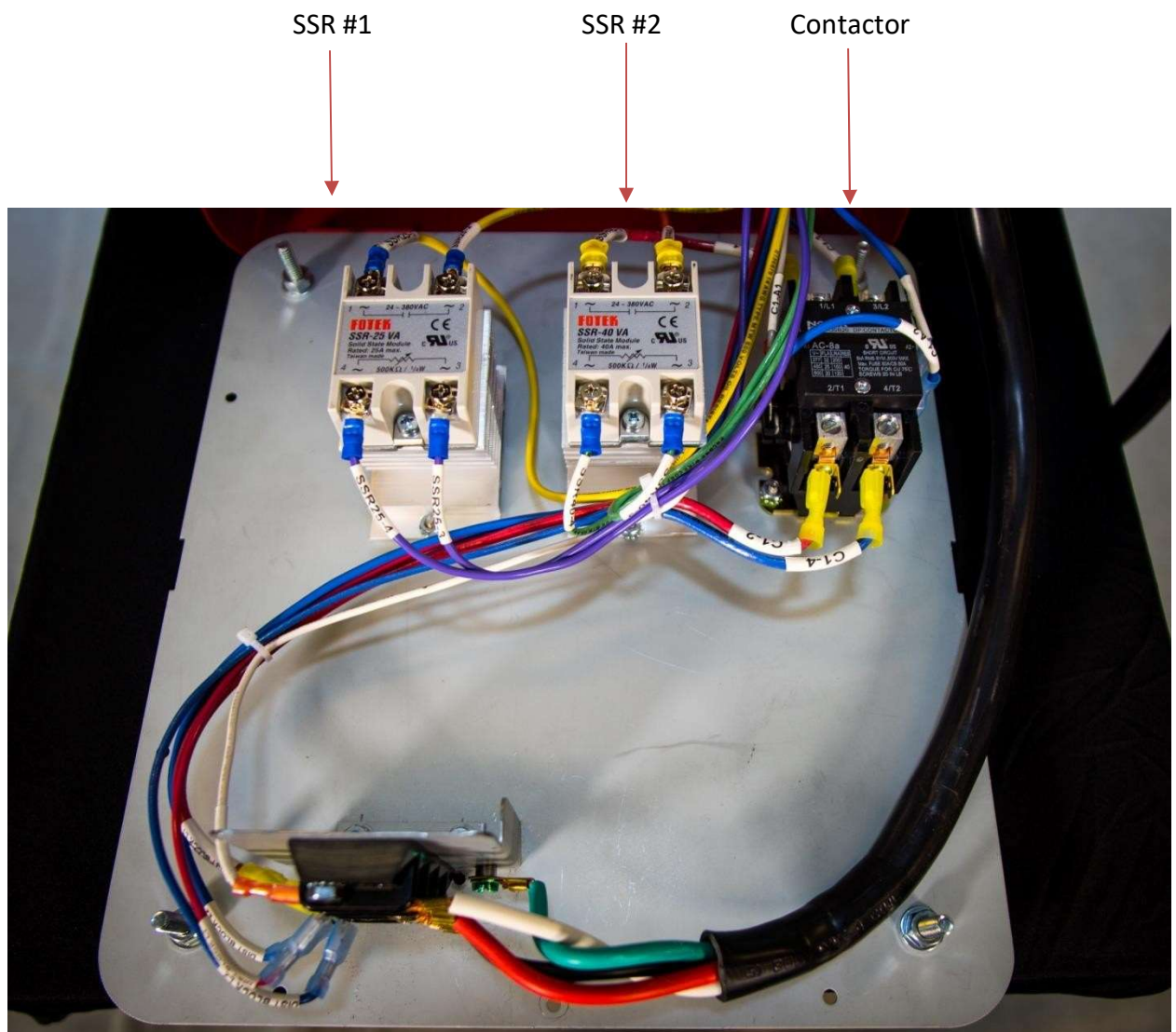
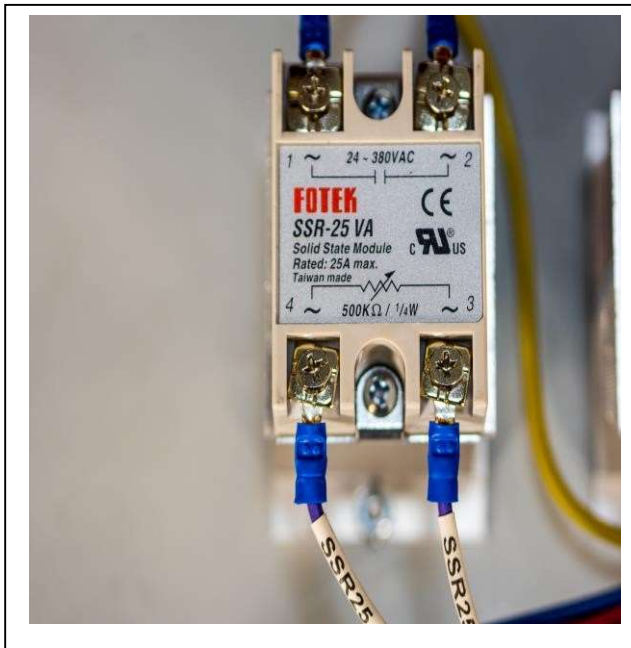


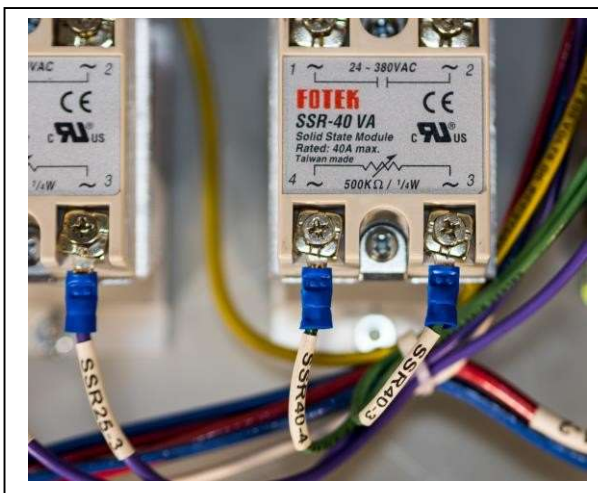
Figure 1.4 – SSR Connections

Potentiometer connections are on terminals 3 and 4, power connections are on terminals 1 and 2.



SSR - 1

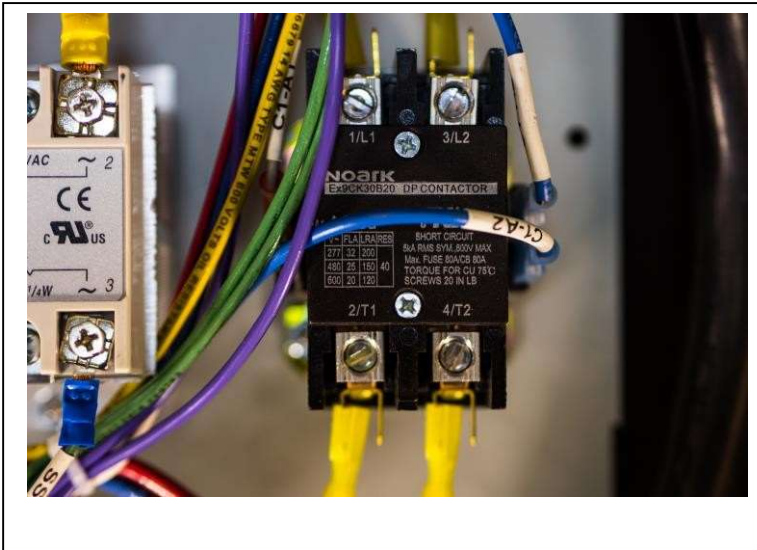
Motor Speed Control Module



SSR - 2

Heat Control Module

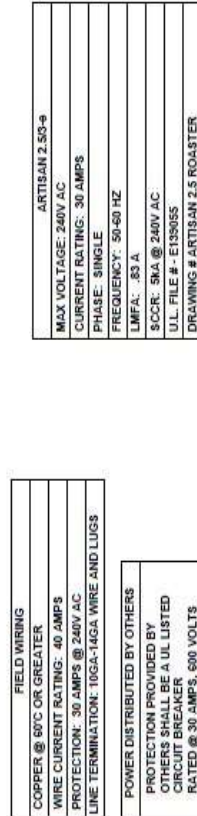
Figure 1.5 – Contactors



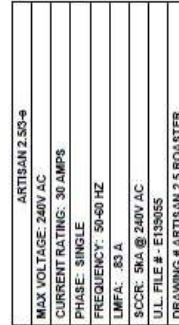
Wiring Diagram

Reference the following pages for diagrams.

REV A NORTH AMERICAN 240V AC, 60 HZ



REV B EUROPE/UK/NZ/AUSTRALIA 230V AC, 50 HZ



Part List

This list provides the customer with a brief description of the various parts used for specific sections of the Artisan 6m Roaster. If a part needs to be ordered, please reference the corresponding part number and revision when contacting Coffee Crafters Customer Service.

Part Description	Part Number
Artisan 3-e Roaster	Mini-0000-RED/BLK
Roaster Lid	Mini-0020
Mini Bean Cooler	Mini-2000
Bean Cooler Tray	A2 12inch
Mini Exhaust Kit	A3 mast assembly
Mast	
Hood	
Mast guard	
Hopper	Mini-6000
Handle Mount	Mini-6020
Hopper Temperature Probe Bracket	Mini-6030
Handle Mini	Mini-5TB02
Wire Chimney	Mini-6040
Chaff Bag Bracket	Mini bag bracket
Chaff Bags	
200 Micron Chaff Bags	CCM-size 1-7x16 200
400 Micron	CC-#1-7x16 400
4" hose clamp	CC-4-HC
WYE 4x4x4	CC-A2525075
Duct reducer 4x5	CC-DR-4x5
Duct 4x6" long	CC-Duct4x6
Mini Breaker 15 amp	CCE-KD1-15
Hyelec Thermometer	MS6501

Part Description	Part Number
Bean Thermometer Probe	CC-Thermprobe
Fotek SSR25-VA 1/4 watt	CC-Fotek SSR 25-VA 1/4 watt
Fotek SSR40-VA 1/4 watt	CC-Fotek SSR 40-VA (1/4 watt)
Potentiometer 500k Double	CC-R-VA2X500KL
Potentiometer 500k Single	CCE-alfa500k
Noark contactor 40-amp 240 volts	CC-Ex9CK30B20
Power Distribution Block	CC-Mini-303-74707
Single red switch Cherry	CC-TRG22F2BBRLN
Speed Control Knob	CC-SPKnob
Temperature Controller F	CCE-4020
Temperature Controller C	CCE-4021
Heat Element Cartridge	CC-HCART Mini
Feet Bean Cooler	CC- 291694007463
Feet Roaster	IL11-41H-RG
Roaster Blower Motor Ametek	116310-01 blower A2