





# Operating Instruction

Automatic Digital Coffee/Tea Brewer

# **Al Series**













#### **♦** Introduction:

We are really pleased that you have chosen our high-quality product of Digital Automatic Coffee / TEA BREWER, and we are very sure that you have made the correct decision. Before you use it, please read the following instructions carefully.

#### **♦** Warnings:

- This appliance is designed for commercial usage.
- The appliance must be placed on a level surface and connected to the ground terminal.
- This appliance is a professional type appliance; it must be operated by trained professional personnel.
- The appliance is only to be installed in locations where its use and maintenance is restricted to trained personnel.
- Remain in the vicinity of the appliance while the appliance is in operation.
- Never immerse the appliance in water. If the appliance has been soaked, it must be dried and checked by a specialist before using it again.
- Do not unplug the appliance if your hands are wet.
- Do not unplug the appliance by pulling the cord.
- Do not attempt to repair or replace the power cord if it becomes damaged. Contact a qualified service agent.
- While the appliance is in use, some parts will become very hot. Ensure that the cord does not come in contact with any hot parts.
- Keep the appliance away from the children.
- Children under the age of 18 years should be supervised to ensure they do not play with the appliance.
- The appliance can be used by persons 18 years and above with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understands the hazards involved.
- The appliance is proper for indoor and room temperature between 41°F to 95°F (5°C to 35°C) to operate.
- This appliance must not be cleaned by pressure washer.
- Be careful not to touch any hot surfaces.
- Do not allow empty decanters to sit on the hot plate.
- All electricians must provide electrical service as specified in conformance with all local and national codes.



WARNING: The appliance must away from locate of water sprayed area.



In case of overflow, <u>TURN</u> the power switch <u>OFF</u> immediately to <u>STOP</u> the process.



Caution! Hot Surface!

Automatic Digital Coffee/Tea Brewer

Model No.: Al Seires

Input Volt: AC60Hz ,120V; 220V

Output: Max. 1800W(120V),3000W(220V) as the data

plate shown.

#### ► Control Panel ◀

- [1] Display screen
- [2] Setting & Service menu
- [3] Recipe: A/B/C (Grey color for setting option)
- [4] Enable brew on/off switch
- [5] On/Off switch for lower warmer (AIG)/ Half batch (AIS)
- [6] On/Off switch for front upper warmer (AIG)/ Full batch (AIS)
- [7] On/Off switch for rear upper warmer
- [8] Brew switch (Pressing and releasing)
- [9] Hot water faucet (Optional)

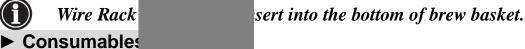
#### ► Rear Cover ◀

- [10] Main Power Switch (AIS)
- [11] Power cord
- [12] Solenoid/water inlet fitting
- [13] Ground connector terminal

#### ▶ Accessories ◀

Brew Basket for Tea (with 3.0mm hole) / Brew Basket for Coffee (with 4.2-5.0mm holes)





Filter Paper







Read the instruction carefully before using the appliance.

## Meanings of the symbols

Carefully read and follow all symbols in this manual and on the equipment.



Warnings for dangerous situations concerning the safety of life and property.



Important information which is useful hints about usage.



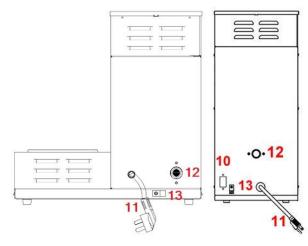
Caution! Hot Surface!



Brew basket contents are hot! Remove brew basket SLOWLY!







#### ♦ Installation: (Initial Set-up)

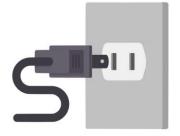
Please check the brew basket is assembled correctly.

The Wire Rack must wedge firmly at the bottom of the brew basket.

- 1. Place the brewer on a dry, firm and horizontal surface with plenty of room above to allow easy and safe connection to the water source.
- 2. The coffee maker must be connected to a cold water system. Plumbing one side of inlet tube into the water source and the other side of tube connects to the solenoid. Then, switch on the water source step by step.

A qualify water filter or softer water must be used or the warranty will be voided.

- 3. Slide the filled brew basket into the brew rails under the control panel.
- 4. Place an empty server at the correct position under the brew basket.
- 5. Plug the machine to the power source and turn on the main power switch on the rear cover for AIS model. (AIG, AIT & AIA models do not have main power switch on the rear cover.) The display screen will show "Insufficient water storage in the tank".



- 6. Press the power button to power on the machine and wait for the tank to fill. Digital display will read "Please wait, tank filling".
- Wait approximately 15 ~ 20 minutes for the water in the tank to heat and reach the setting temperature, the screen display will show "Ready to Brew, water temp.: °F" when the tank is reach operating temperature. Some water will drip from the sprinkler holder during this period because of thermal expansion and contraction principle. This situation should not occur again when the water reaches the final temperature. (When facing this issue, please place a small container under the faucet. Then open the faucet handle and release some water until the tank filling function is working again.)
- 8. The coffee maker is now ready for use.
- 9. During above operation, it is normal to hear some brewing, pumping sounds and see some water vapor coming out of the machine.



Owing to different water pressure in different area, it is necessary to [Calibrate water volume] before brewing coffee or tea.

#### **♦ Setup & Programming**



Shift Language





Shift temp. unit °C or °F



Shift Vol. unit Liter/ Ounce



- 1. Turn on the power
- With the first 3 seconds of powering the unit on, press and hold on A & C buttons at the same time. Select the language.

Select Temperature unit (C/F)

Select Volume unit (Liter/Ounce)

#### **BUTTON FUNCTIONS**



Recipe A, B, C and Hiding Recipe. Grey Arrow = Back, Yes/+, No/-



On/Off for the warmer plate and correspond to the relevant graphics.

Brew half or full batch and correspond to the relevant graphics.



- 1. Settina
- 2. Service Menu
- 3. Hiding Recipe
- Setting button includes setting temperature, water volume, pulse time, water out manner and safety interval...etc.
- 2. Press and hold on 3 seconds to access menu mode. This is used to access into the program mode and step forward through the menu.
- 3. A hidden recipe for testing purpose



- 1. Brewing cycle
- 2. Lights up
- 3. Blinking
- 1. Press once to brewing → Pause (Indicator lights up)
- 2. Press again → Pause (Indicator blinking)
- 3. Press again → Resume brewing cycle; press and hold on 3 second to turn off cycle



1. Standby switch

brew

- 2. On/Off
- 3. Interrupt
- 1. Power/Standby switch.
- 2. Press to turn on and off.
- 3. Interrupt the brew cycle

Press power switch on the back of machine for AIS first and press enable brew button. Press Enable brew button for AIG, AIT & AIA.



Power Switch/ Enable

The screen displays before and after status as below:



**Before Status** 

Insufficient water storage in the tank

Turn on enable brew on/off switch and tank filling

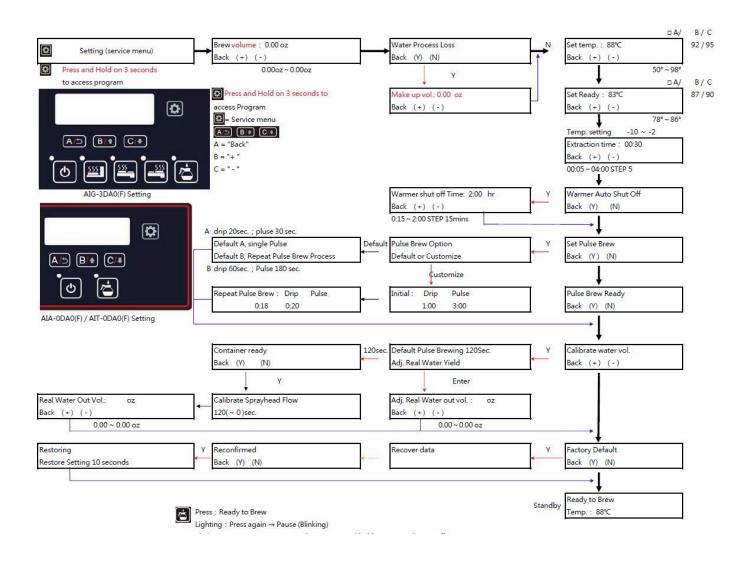
Diagon weit took filling



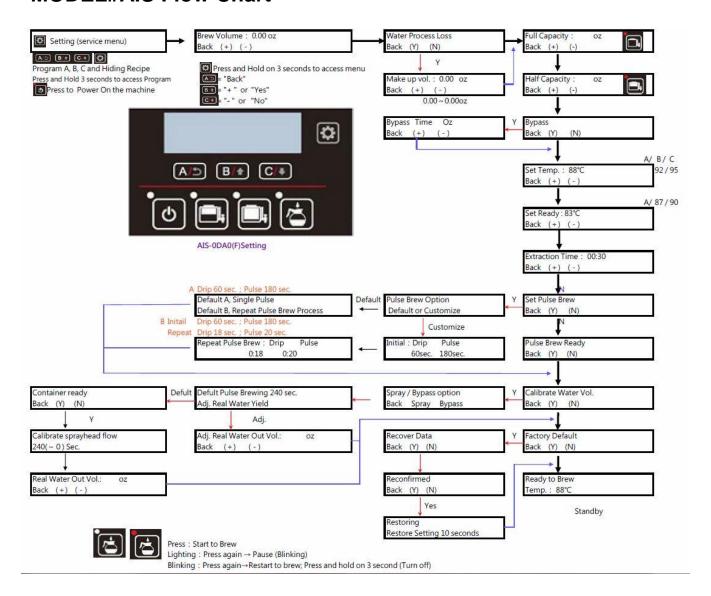
After Status Please wait, tank filling…

After tank fills up Heating.... Water temp. XXX °F

#### **Model #AIG Flow Chart**



#### **MODEL#AIS Flow Chart**



#### **♦** Calibrate water volume

Scroll to the calibrate flow screen. "Calibrate water volume" program is at the second to last option in the function setting. Before conducting the "calibrate water volume" procedure, the container, measuring cup and electric scale are required.

Actual Calibration volume

Follow the screen indication, measuring the water volume output for 4 minutes. Then, input the actual measuring value. After measuring, please convert the volume to oz per minute and remember this parameter to facilitate future adjustment.

Input Calibration Data Provide the data to qualified person, or input during the calibration procedure. The standard value is approximately 1.1L per minute.



The container, measuring cup and electric scale are required to complete the [Calibrate] to be procedure.



Recommend to execute the [Calibrate] procedure once a week to ensure the brew volume accuracy.

#### **♦** Quick Recipe

There are three quick recipe of [A][B][C] which build-into the factory default settings for temperature and water flow-in mode etc. In addition; there is a hidden recipe when setting up recipes without selected[A][B] or[C], you can consider recipe[D]. Users may set different recipes such as water temperature, volume, immerse volume, immerse time and Pulse Brew cycle, etc.







D/"Setting Menu"

The brewer can be configured up to three hot plates by models, corresponding to the hot plates illustration and used as needed.



Recipe [A] 190 °F Non-Stop dripping with 63 oz. brew volume.

Recipe [B] 198 °F Non-Stop dripping with 63 oz. brew volume.

Recipe [C] 203 °F Non-Stop dripping with 63 oz. brew volume.

Recipe [D] 185 °F Non-Stop dripping with 63 oz. brew volume



The **AIS** brewer is corresponding to the half or full batch illustration and used as needed.

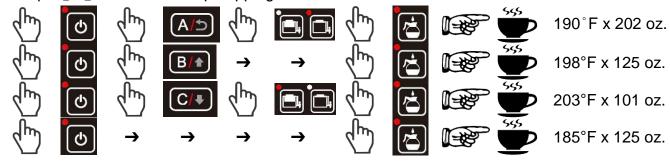


Recipe [A] 190°F Non-Stop dripping with 202 oz. brew volume.

Recipe [B] 198°F Non-Stop dripping with 125 oz. brew volume.

Recipe [C] 203°F Non-Stop dripping with 101 oz. brew volume.

Recipe [D] 185°F Non-Stop dripping with 125 oz. brew volume



Users may change the parameters for the recipe [A], [B], [C] or [D] as needed. Select [A], [B] or [C] and press and hold on for 3 seconds. The system will enter the Setting Menu. Follow the indication on the screen to set various brewing parameters as needed.

The new setting parameters will replace the factory default setting after completing above procedure.

The hidden recipe can also be programmed by pressing and holding for 3 seconds but without [A], [B] or [C] selected.

#### **♦** Factory Default

When the brewer setting occurs to the confusion or has new program to be reset or upgrade the system, please restore to the factory default first.

#### ♦ Hot Water Faucet (Optional)

The brewer may equip with a Hot Water Faucet [9], to lift the handle of Hot Water Faucet to get Hot Water supply.



Caution!: Hot liquid may drip from the Faucet or Brew funnel.

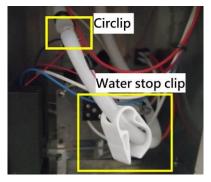


When water temperature is higher than the brewing temperature that you need, the user may lift the faucet to release some of hot water to reduce temperature in the tank.

#### **♦** Draining

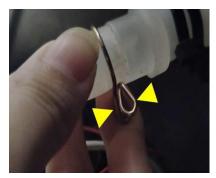
When the brewer needs to move, repaired, de-scaled, or emptied for extended storage, the remaining water in the boiler tank can be released following the steps below:

- Unplug the power cord from the electrical socket and let the brewer cool down for at least 40 minutes to avoid any burn injuries.
- Remove the two black fixed pillars from brewer base and loosen the 6 screws of the front cover. Remove the front cover. (This is for AIG0DAF model).
- A white water pipe tube and hose shutoff clamp can be seen inside of brewer. (Figure 1)
- Fasten the white shut off clamp at the end of the drain hose. (Figure 2)
- Look for a connector in the front of water tube clips with a metal clamp. Please press down on the metal clamp and move slightly to the end of tube. (Figure 3)
- Place the end of the drain hose in a container that has a capacity of 405oz or more.
- Release the white clamp to drain water out from the tank.
- When the water tank is empty, move the drain hose back to the original position. Then, press down on the metal clamp and move it back to the original position.
- Check the white shut off clamp has been loosened.
- Replace the front panel and tighten the screws.
- Reinstall the black fixed pillars back to the brewer base









## **♦** Cleaning

Regular cleaning ensures long life. For dirt or smudges on the brewer's exterior, a damp cloth will suffice. If necessary, a non-corrosive, non-abrasive detergent or cleaner may be used. Be sure to unplug the appliance before cleaning.

The brew basket and container pot might have some coffee or tea spots on them; clean them after using daily is the best way to maintain the brewer and its accessories.

If the coffee / tea spots accumulate on the brew basket or container pot over a while, please follow the below steps to clean:

- ♦ Put the brew basket and container pot into clean water and soak for several hours.
- ♦ The glass decanter and brew basket should be washed in the warm soapy water.
- ♦ If necessary, clean with a non-corrosive or non-abrasive detergent.
- Repeat to rinse to clean out the residual detergent.



**WARNING: HOT SURFACES -** To avoid injury, turn the power OFF and allow the brewer to cool down before cleaning the brewer and accessories.

#### **♦** Descaling Procedure

To prolong your coffee brew's life and maintain a consistent, quality product, regular deliming is recommended. When hard water is heated, minerals are left behind which can inhibit optimum performance. You should perform the following deliming process at least every 6 months. If your water is extremely hard, monthly deliming is recommended.

- Melt 300 ml citric acid to a pail of warm water (around 2000ml) or dilute 2000ml condensed lemon juice to 1 liter of warm water.
- Place the brew basket in a proper position.
- Place an empty container at the correct position under the brew basket.
- Connect to the solenoid valve with an external bottle water pump substitute for the water source. Then, pump the lemon juice mixture into the water tank by following the brewing procedure.
- Let Stand for 10 minutes and repeat 2~3 times for best descaling results.
- Connect back to the water source and run the brewing cycle several times with clean water in order to rinse out the lemon solution. Turn off the power and wait until the water cools down inside of the boiler. Finally, use drain pipe to release all remaining water in the boiler until the lemon flavor is completely removed.

If the brewer suddenly stops working during a normal brewing cycle, deliming may be necessary.



#### Clean & Descaling dual purpose spring brush

This spring brush fits into the spray head opening of pour-over coffee makers to loosen lime deposits. Made of stainless steel. Sold separately.



**WARNING:** During the descaling process, please assign the qualified person to guard the whole process.



**WARNING:** During the descaling process, wear appropriate gloves and goggles are necessary to avoid any acid liquid splash.



**WARNING:** Never put the brewer or power cord in water or any other liquid.



In case if any acid liquid splashes to the eyes or skin, please use a great quantity of water to wash and go to the hospital immediately.

**♦ Al Trouble Shooting** 

•	Al Trouble Sho	othig			
#	Problem	Probable Cause	Action & Remedy		
		1. No water out	Check the water source		
1	Filling time is too long	Inlet solenoid block up	<ul> <li>(1) Turn off the water source</li> <li>(2) Disassemble the inlet solenoid and clean the filter mesh</li> <li>(3) Reinstall back to machines and turn on the water source</li> </ul>		
		The pressure of water source is too low.	(1) Water pressure is lower than working pressure 1.0kg/cm2  (2) Install another pressurized motor		
		(3) Inlet solenoid failure or circuit board failure	<ul> <li>(1) The screen displays 『Please wait, tank filling』</li> <li>(2) Inlet solenoid with working pressure → solenoid abnormal → replace solenoid</li> <li>(3) Inlet solenoid without working pressure → circuit board abnormal → replace circuit board</li> </ul>		
2	Screen displays 『NTC Trouble/Broken』	Temperature sensor failure	Check/replace		
3	Temperature is too high	Temperature sensor failure	Check/replace		
1	Power ON, Screen is no	1. No power input	(1) Check the power source		
4	any display	2. Circuit board malfunction	(2) Replace circuit board		
5	Screen displays normal but no action of the touch button	A. Check all touch buttons     B. Check if the control board strip is inserted correct or not     C. Check if the control board strip pin and the drop-out line is connected incorrectly.			
		Control board malfunction	Replace control board		
		2. Circuit board malfunction	Replace circuit board		
6	Beverage is overfill from filter pan	Filter pan block up	<ul> <li>(1) Lack of springs → insert the springs to the filter pan</li> <li>(2) No filter paper or filter paper is blocking the hole → put in/replace filter paper</li> </ul>		
		The interval of pulse time is not enough	Set the proper interval of pulse time.		
7	Overflow tube is leaking	Water pressure is higher than working pressure	(1) Add additional pressure reduce valve		
		Inlet solenoid failure     Water quality abnormal	<ul> <li>(2) Check/replace</li> <li>(1) Check that the water in source is not purified or treated with reverse osmosis.         The unit will not be able to detect water level properly without typical mineral balance. Use a different water source.     </li> </ul>		
8	Power On, overflow tube is nonstop dripping	The water level detector pin isinserted incorrect	(2) Check and re-insert to the correct position		
		Circuit board malfunction	(3) Replace circuit board		
9	Power is On, nonstop dripping from main and	Power off, stop water out     Power off, water continue out	<ul><li>(1) Replace circuit board</li><li>(2) Replace the main and sub spray head</li></ul>		
10	sub spray head  Sustained warming up	Temperature probe failure	solenoid (1) Replace temperature probe		
10	oustained warming up	Circuit board malfunction	(2) Replace circuit board		
	Water does not heat to proper temperature	Limit thermostat abnormal	(1) Check/replace thermostat		
11		2. Heating element failure	(2) Replace heating element		
		Circuit board malfunction	(3) Replace circuit board		
12	Water out volume is insufficient	Insufficient water output at peak usage	(1) Connect to a lone water source or add a constant water pressure regulator		
ıZ		Normality water out volume is insufficient	(1) Clean solenoid filter mesh on a regularly (2) calibrate the water volume		

# Brewing Tips

Fresh and good-tasting water is essential since it makes up more than 98 percent of a cup of coffee or Tea. The brewing, pulse, extraction or pouring water time is primarily determined by the grinding size.

If the ground size is coarser, it causes under extraction and tasteless coffee. If the ground size is too fine, it causes over-extraction and a bitter taste. To get the best flavors from a coffee, we suggest a medium grind (5-grain size). Never reuse the coffee filter paper and coffee grounds.

#### [Recommend Recipe for #AIG & #AIA]

Item	Beans to Water Ratio	Recommend Temp.	Soak Time	Pulse Brew
Breakfast Coffee	1:16-17	92°C / 197°F	10-20 Sec.	N/A
Specialty Coffee	1:15.5	90°C / 194°F	10-20 Sec.	10 Sec. / 5 Sec.
Ice Coffee	1:12-14	94°C/ 201°F	20-30 Sec.	10 Sec. / 5 Sec.
< 2.5 Liter Brew	1:18	92°C/ 197F°	20-30 Sec.	1 Sec. / 5 Sec.

<sup>\*\*\*</sup> Not exact recipes, for reference only\*\*\*

#### [Recommend Recipe for #AIS]

Item	Brewing Ratio	Recommend Temp.	Initial Drip	Soak Time	Pulse Brew
Coffee	1:16-18	92°C / 197°F	60 Sec.	20 Sec.	N/A
Tea, Brew Volume more than 5 Liter	1:40	94°C / 201°F	60 Sec.	3-5 mins.	18 Sec. / 20 Sec.
Tea, Brew Volume less than 4 Liter	1:40	94°C / 201°F	30 Sec.	3 mins.	18 Sec. / 20 Sec.
British Breakfast	1:40	96°C / 205°F	60 Sec.	5 mins	10 Sec. / 10 Sec.
Oolong Tea	1:40	96°C / 205°F	60 Sec.	5 mins	10 Sec. / 10 Sec.
Green Tea	1:40	88°C/190°F	60 Sec.	5 mins	10 Sec. / 10 Sec.
Jasmine	1:40	85°C/185°F	60 Sec.	3 mins	10 Sec. / 10 Sec.

<sup>\*\*\*</sup> Not exact recipes, for reference only\*\*\*

If you have any questions please feel free to contact with as below: