



Magnesia 9 kw



USER MANUAL



DEAR CUSTOMER,

We thank you for choosing Fornello products and hope you will be satisfied with our products.

This guide is designed to inform our valued customers. The information in the manual has been prepared so that the users can use the product in a healthy way and take appropriate interventions when necessary. Keep this manual for the life of the product.

The product must be used by following the instructions in the user manual from the first start of the product.

1. GENERAL WARNINGS

	ATTENTION! HIGH VOLTAGE! Electric Shocks Can Cause Serious Injuries, Burns And Death. Please Unplug the Device Before Doing Any Maintenance. Electronic Card, Motor And Fan Failures Resulting From High Voltage And Voltage Fluctuations Are Out Of Warranty.
	ATTENTION! HOT SURFACE! Some Parts of the Product May Be Very Hot.
	ATTENTION! MOVING PARTS! Pay Attention to Moving Parts such as Fuel Loading Screws. These Parts Can Cause Serious Injury.
	FUEL: Wood Chips that Made of 100% wood pellet with Max. 6 mm Diameter and TSE EN ISO 17225-2 Standard Should be Used.
	ATTENTION! Glass parts of the product are out of warranty.
	ATTENTION! Vermiculite, suppository and insulation materials, which are recommended to be replaced in annual maintenance, are out of warranty. Annual maintenance is done by authorized services for a fee.
	ATTENTION: Moist pellets cause bad burning and malfunctions. The pellet should be stored in dry places and at least 1 meter away from heat sources. Make sure that your pellet conforms to the standard and does not contain chemical and MDF powder. The pellet should be 6mm in diameter, and a maximum length of 25mm, and should not contain dust. Such fuels will cause serious damage to your device and will result in no warranty coverage.
	MAINTENANCE AND CLEANING The maintenance and cleaning operations should be done by the user or the authorized service as specified in the user manual. If the maintenance is not done on time, the efficiency of the product decreases, its lifetime is shortened, fuel consumption increases and it causes many malfunctions that can take your stove out of warranty.
	No Foreign Body Should Be Contained In Fuel. Foreign Bodies May Cause Jam to Fuel Feed Unit. Malfunctions caused by foreign objects such as stones, nails and pieces of iron that may come out of the fuel are out of warranty.



WORKING PRINCIPLE OF PELLET STOVE

The pellet stove you have purchased is burning by creating negative pressure in the combustion chamber thanks to the chimney suction fan. Thanks to the chimney suction fan, the fresh air entering the crucible at the edge of the combustion pot meets fuel and creates the combustion process.

Combustion smoke is thrown out of the fan in the chimney of the stove. This function prevents the smoke from escaping from the stove body and spreading to the environment. Depending on the internal temperature of the house to be heated and the heating rate, the chimney suction fan speed is automatically adjusted from the control panel in parallel with the burning power of the stove. The heat emitted by the burning pellet heats the pellet stove body, the heat on the body that is heated by the fan at the bottom of the body is dissipated by the air blown into the interior.

There is TPS automatic control panel on pellet stove. The control panel is programmed according to the power of your stove, it controls the functions such as fuel loading and waiting time - chimney suction fan speed - blowing fan operation - stove put on hold - keeping the ambient to be heated constant at the set temperature.

The helix system is used in the fuel supply unit of the stove and fuel is fed from the upper part of the burning flame. With the back-burn protection sensor in the system, the return of the flame to the chamber is protected.

Another function that makes the system safe is the sensor that senses the pressure caused by the recoil of air or smoke into the flue pipe. If the stove chimney is backfiring into the combustion chamber or the flue suction fan cannot create the required negative pressure, the sensor commands the stove to be stopped and protects the system.

There is a chimney sensor inside the chimney of your device. The flue sensor detects the chimney outlet temperature in the first ignition process of the device and controls the deactivation of the ignition system that burns the stove. Also, thanks to the chimney sensor, the speed of the chimney suction fan is automatically adjusted depending on the smoke temperature coming out of the chimney. In this way, the burning efficiency of the stove is kept at an optimum level.

BURNER MECHANISM OF MAGNESIA & SARDES:

The burner mechanism is made of CHROME. There are air inlet holes around the chrome pot, air intake from these holes is provided by the chimney suction fan.



There is a sleeve at the bottom of the chrome pot. Ashes formed as a result of combustion in the pot are poured into sleeve. The pot should be removed once a week and the ashes inside the sleeve should be cleaned. The figure above shows the chrome pot and sleeve.



BURNER MECHANISM OF AIRSMARTPEL:

The burner mechanism is made of cast iron. There are air inlet holes around the cast iron pot; air inlet from these holes is provided by the chimney suction fan.

There is a cast sleeve at the bottom of the cast iron. Ashes formed as a result of combustion in the pot are poured into the sleeve. The pot should be removed once a week and the ashes inside the sleeve should be cleaned. The figure above shows the cast iron pot and sleeve.

ROOM THERMOSTAT USAGE: On the card of the stove, there is an entrance to be connected to the room thermostat. This thermostat senses the heat in the room, and when the indoor temperature reaches the set temperature on the control panel, the stove starts to wait.



However, there is no need for a room thermostat since our stoves have another sensor that measures the temperature of the indoor environment. In the air ducted system, which is only available as an OPTIONAL for our SARDES model, room thermostats are recommended to control the fans supplying hot air to these ducts separately in the assemblies made with the condition that the duct lengths do not exceed 4 meters.

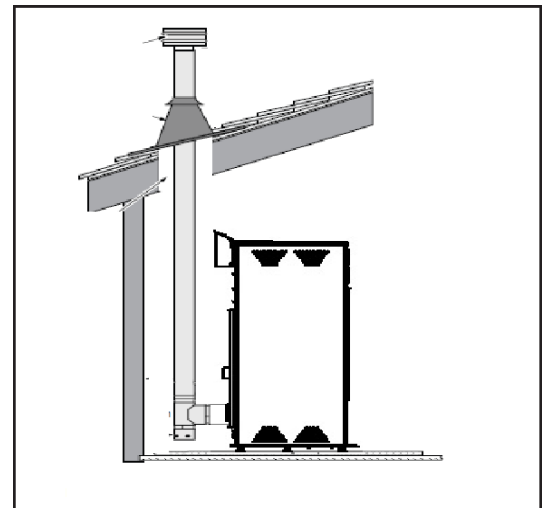
PRELIMINARY PREPARATIONS

INSTALLATION AND PLACEMENT: In order for the service works to be easy and the flue connections to be made properly, the space between the stove and the walls should be left at least 50 cm at the sides and back, the front should be left open and there should be at least 2 meters distance from the items to prevent it from being affected by heat. A metal or marble fireproof platform should be placed on the floor where the stove will be placed, and measures should be taken against the risk of ash spillage from the stove cover. Fresh air should enter the place where the stove is installed and the environment should be ventilated.

Chimney Connection: Chimney connection should be made by an authorized expert. Hazardous gases may be released during combustion of fuel. For this reason, flue connection must be sealed. Chimney connections should never be passed through bedrooms and children's rooms. The chimney diameter should be made to the same extent as the device chimney outlet. Chimney cross section should definitely not be narrowed.

While connecting the chimney, sharp corners

should be avoided, at least pipes and elbows should be used. The flue pipe must not be made of material that will corrode. The horizontal distance of the device to the chimney should be maximum 150 cm. Chimney connections should not be passed through flammable and explosive materials. The chimney connection pipe should be kept away from objects that will deform from heat. If the chimney connection has to be installed so that people and pets can reach and be damaged by heat, thermal insulation must be done. The chimney should be raised two meters above the roof top. In addition, the chimney should be raised at least one meter from neighboring buildings. At the bottom of the chimney, there should be a soot cleaning cap, when this cap is closed, it should not get air from the bottom part and should ensure that the smoke formed inside does not come out. The chimney should not be exposed to rainwater. Rain water can reach the fan of your device through the chimney and cause the fan to burn. In such cases, you cannot use your warranty.



PURPOSE OF USAGE: Magnesias-Sardes-Airsmartpel pellet stoves are suitable for use in areas such as workplace, hall, restaurants etc. It is not suitable for heating a few rooms in domestic use; it should only be used for heating the room in which it is located. Our Sardes-22 model is not suitable for domestic use.

FUELS: Wood Chips that Made of 100% wood pellet with Max. 6 mm Diameter and TSE EN ISO 17225-2 Standard Should be used.

Our company is not responsible for any inefficiency or any malfunction caused by solid fuels other than these fuels. Our company also does not accept responsibility for any malfunctions caused by foreign bodies coming out of the fuel and excessive dust formation. For this reason, spiral congestion failures are not covered by the warranty.

ATTENTION! The fuel you use in your stove should not be wet and should not contain chemicals such as high sulfur and MDF powder. Sulfur, moisture and MDF powder or different chemicals can create Sulfuric acid as the combustion product, causing the stove body to rupture. In such cases, you cannot use your warranty.

ELECTRICAL CONNECTIONS: The electrical connections of your stove should be made by experts. The electrical connections must be grounded and the electrical cables must be protected against liquid contact. Never touch the main electrical connections. The device should not be exposed to voltage fluctuations. To eliminate this situation, it is recommended to have regulatory systems installed on your



electrical system. Otherwise, your product will be out of warranty in case of malfunctions caused by voltage imbalance.

MOVING PARTS: Moving parts work in closed enclosures. The limbs should not be brought closer to the movable parts during the work. Otherwise, you may be damaged. Fornello does not accept any responsibility in case the moving parts are damaged by inappropriate intervention of the person during the work.

PERIODIC MAINTENANCE

Stove maintenance should be done when the stove is cold. It is important for the safety of life that the stove is unplugged to prevent possible electric shock during maintenance. After the maintenance is over, the plug of the stove should be reinserted. The suction ducts in the interior of the stove can become clogged within two to six months depending on the quality and amount of pellet used. As a result, your device may have difficulty burning fuel and inefficient combustion occurs. If you encounter such a situation, it is recommended to contact our nearest authorized service and have stove maintenance done.

Pot Cleaning: Cleaning the pot must be done once a day to prevent the fuel from solidifying and sticking in the pot. The ashes inside the pot should be emptied and the fuel that solidifies at the bottom should be cleaned. Also, in order for the pot air duct to perform its functions ideally, the chrome or cast iron pot should be removed from its place and inside the pot should be cleaned with a wire brush. Air holes in the pot should be cleaned once a month with the help of any nail or wire.

Fan Motor Maintenance: Since the chimney suction fan is exposed to the smoke coming out of the burning pellet, the fan blades can be covered with a tar-like layer over time. The chimney fan should be removed once a year and cleaned. This layer may cause the chimney suction fan to balance and fail over time. Contact Fornello if any abnormal sound or vibration is felt from the chimney suction fan. The stove chimney should be cleaned once a year and the chimney should be checked in case of any problems in the flue draft. While cleaning, dust mask, glasses and gloves should be used. In addition, cleaning the pellet dust accumulated in the fuel tank every 15 days will increase the combustion efficiency and decrease the possibility of failure.

Stove Cover Maintenance: The cover on the front of the stove should be checked every two weeks, and it should be carefully examined whether the fireproof packing inside the cover is deformed or not.

If the fireproof packing is deformed, it may cause the smoke in the stove to escape. This can cause damage to users, residents, third parties and the building. If the covers remain open during the burning of the stove or the cover is not closed tightly, the packing will be damaged by the flame. The tightness of the cover should be checked after each burning operation of the stove.

Thanks to the chimney suction fan, the covers of the working stove must be closed tightly.

Otherwise, there will be air intake from outside the profiles that feed the pot and fuel cannot be burned completely.

It is recommended to have your stove maintained at the end of each season.

Annual maintenance is paid.

Thank you for choosing our product.

The control cards of our Magnesia, Airsmartpel and Sardes models make your winters more comfortable thanks to its advanced software, while allowing you to take advantage of renewable energy.



ELECTRONIC PANEL USER MANUAL (TPS)

a. Intro

Thank you for choosing our product. Thanks to its advanced software, TPS CARD allows you to enjoy the advantages of renewable energy while making your winters more comfortable.

b. Control Board

c. Control Panel

Infrared remote control allows you to change basic settings.

d. Quick Start

d.i. Open & Close

Press and hold the Press / Turn button for about five seconds. If you release the button before the countdown ends, there will be no change.

d.ii. Changing the temperature setting



Press the Push / Turn button to enter the Main Menu.





setting and press the button again.

Turn the Push / Turn button to select the temperature



You can increase the temperature by turning the push / turn button clockwise, and decrease the temperature by turning it counterclockwise.

temperature

Press the push / turn button to return 

e.

f. Software Overview

The TPS control panel has a two-level menu for users and service personnel.

Press the Push / Turn button to access the Main Menu. Turn the button clockwise or counterclockwise to select menu items.

i. Main Menu



i.1. Temperature

Setting the desired temperature.

Hot Air Stoves	Pellet Boilers	Hot Air + Pellet Boiler
 Sets the room temperature	 Sets the boiler temperature	Activates the temperature setting menu.

i.2. Temperature Setting Menu

i.3. Fan

Adjusts the fan speed in five steps or automatically. This feature is not available in pellet boilers.

 Automatic



 Manual (5 steps)



i.4. Weekly Program

The weekly program allows you to set three different opening and closing times for each day of the week. To set the weekly program, first select the day you want to make changes.



Turn
the
button

Choose the active key:

-  (Closed) All programs of the selected day are closed.
-  (Open) All programs of the selected day are open.

Then set the opening and closing times. 

After making all the settings, turn the button to select Back and press the button.

i.5. **Temperature Compensation**

The control panel can automatically adjust the operating temperature according to the air temperature, if you wish. Outdoor sensor is required for this feature.

To activate the feature, set the Active switch to On.
The temperatures on the left represent the air temperature range, the temperatures on the right represent the change to be made on the operating temperature.

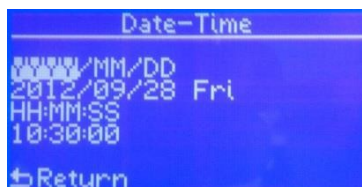
Example:

Air Temp.	Comp.
>20°C	-5°C

"If the air temperature is more than 20 ° C, reduce the operating temperature by 5 ° C"

ii. Setting Menu

ii.1. Date/Time



Sets the system date and time.

The day of the week is calculated automatically.

Clock Battery: Due to our respect for the environment, the TPS control panel does not have a disposable clock battery that contains mercury and cadmium.

Instead, it is equipped with a Super-Capacitor.

If you unplug the device for more than three months, you may need to set the clock again.

ii.2. Display/Sound





Brightness: Adjusts the brightness of the LCD screen.

Dim Screen: If you wish, the screen may decrease its brightness when there is no activity. Select "Never" to disable this feature.

Lighting: The lights around the push / turn button turns on or off.

Sound: Adjusts the intensity of the warning sounds.

ii.3. Language

Allows you to select the software language.

Languages offered with the control panel may vary depending on the software version.

ii.4. Service

Activates the service menu.

The service menu is for technicians and is password protected.

It is not recommended to change the service settings by the end user.

g. Troubleshooting

Indication	Possible Reasons	Things to do
No lights or images on the screen	The main switch may be off.	Turn on the main switch.
	The fuse may have blown.	Replace fuse.
	There may be no electricity in the outlet.	Check the outlet.
The stove / boiler do not start to burn.	The measured temperature may be higher than the desired temperature.	Change the temperature setting.
	Room thermostat may be closed.	Open the room thermostat.
Error: Over temperature	Low air flow	Check that the vents are not covered.
	Pump Failure	Check the pump
	Temperature sensor failure	Call service
	Control panel failure	Call service
Error: The flame is extinguished	The tank may be empty	Fill the tank
	Pellets can be of poor quality or damp.	Use high quality pellets.
	Chimney temperature sensor failure	Call service
	Chimney suction fan failure	Call service
Error: Back-burn	The fuel tank is too hot.	Check the fuel tank. If necessary, empty the tank.
Error: Inadequate chimney draft	Chimney draft is insufficient.	Check the chimney.
	The chimney may be clogged.	Check the chimney.

The weather can be very windy.

-

Error:

Ignition Error

Low quality pellet

Use high quality pellets.

Ambient temperature is too low.

Try again.

Igniter faulty

Call service

Chimney temperature sensor failure

Call service

Error:

Sensor failure: <T1 T2 TC>

The sensor or control panel may be faulty.

Call service

Error:

BOOT Failure

Control panel failure

