COMPONENTS OF THE ACE 1

1. **Removeable steel stove top**
2. **Burning chamber**
   - 20mm refractory ceramic tiles
3. **Handles for portability**
4. **Stainless steel body**
5. **Control knob**
   - Output heat max. 4-5 kW, min. 2-3 kW
6. **Powder coated steel base**
   - Available in a variety of colours.
7. **Charging port**
8. **USB port**
9. **DC port for LED light**
10. **Fan**
11. **Battery LiFePO4 6.4 V / 5 Ah**

**OPTIONAL**

- **LED unit**
  - 100 lumens
- **Solar panel**
  - 9V 5W frameless PET unit unregulated (regulator integrated into the stove)

ACCESSORIES

Take extra care when cooking

1. The room should be well ventilated
2. Place the stove on a flat surface
3. Keep the stove out of reach of small children

![Warning Icon]

Charging the stove

1. The battery should be fully charged before using the stove for the first time.
2. Put the solar panel outside in the sun, or in as much light as possible, and connect the cable to the stove.
3. The stove can be used while the battery is charging.
4. When the blue light is on, the stove is charging.
5. When the green light flashes, the stove battery is low on power and it is time to recharge.
6. A low battery will need charging for a day or two at least to be fully charged, but does not need to be fully charged to function.
HOW TO START THE STOVE

1. Place a small amount of dry sticks, paper or firelighters in the burning chamber.
2. Set the fuel alight.
3. Turn the knob to the right to switch on the fan. The green light will turn on and air will enter the burning chamber.
4. Keep adding sticks of wood to the flames.
5. Once the wood is burning properly, place the pot on top. Any size pot can be used on this stove.
6. Add fuel every so often to keep the fire going. Be careful not to add large amounts of fuel at the same time – this might smother the flame and could cause smoke.
7. To increase the flame turn the knob to the right. To decrease the flame turn the knob to the left. When finished, turn the knob to turn off the fan.
8. Allow the ashes to cool completely.
9. Empty the stove by turning it upside down. The ashes are good soil nutrients.
NEVER

NEVER pour paraffin directly into the cook stove. NEVER put the stove in water or pour water into the burning chamber. NEVER leave the stove outside in the rain. NEVER let the food boil over into the burning chamber. NEVER carry the stove while burning. NEVER pour burning ashes out of the stove.

TO AVOID SMOKE

DO NOT use long pieces of wood, so that they stick out of the burning chamber. DO NOT fill the stove to the rim or above.

CHARGING, USB AND DC PORTS

When the stove battery is charged you can use the USB or DC ports to charge your phone and other devices, and power an LED light. Keep the devices a safe distance from the stove.
THE BATTERY

The battery used in the ACE 1 stove is a high-tech LiFePO4 battery. This will give a far greater life and reliability than lead acid batteries, and is less detrimental to the environment.

All batteries are dangerous.
• Do not short circuit.
• Do not take apart or puncture or damage.
• Dispose of properly.

The battery is 6.4 Volts nominal and 5 Ah. There is a BMS circuit to prevent over – or under-charge.

If treated properly, this battery can give many years of service.

A full charge on 220V using the supplied charger will take 8 hours.

Using the solar charger will take two days of good sunshine to fully charge the battery.

The battery can be charged as often as you like and does not have to be run down first.

SOLAR CHARGING

To charge the stove using the solar panel, plug the attached solar panel into the charging port and place it somewhere facing direct sunlight.

The blue light will turn on when it is charging.
**FUEL TYPES**

You can use the following biomass fuels:
- Dried dung
- Wood (chopped into small pieces)
- Biomass fuel pellets
- Bamboo
- Agricultural waste e.g. Corn cobs

**PREPARING THE FUEL**

- Make sure to only use dry wood.
- Wet wood will cause smoke.
- Cut larger pieces of wood into smaller pieces.
- Do not use painted or impregnated wood.
- Never use flammable liquids in the stove.