

ATLOSON

THERMAL SYSTEMS

EMBER C18

INSTALLATION AND OPERATION MANUAL

OPERATION | MAINTENANCE | PARTS



HEAT DRIVES
POSSIBILITIES

01 Identification, safety and use

This manual accompanies model EMBER C18. Record SKU, serial number, voltage, fuel and revision before installation. Accessories, functions and protective devices depend on the supplied variant.

Cooking in a mobile installation according to version; air heating only for H versions. P45 and SL45: outdoor cooking, stationary, clear and stable unit.

SKU	Fuel	Voltage
ATL-EMB-C18	Diesel	12V

Carbon monoxide: combustion gases must remain outside occupied spaces. Do not operate in a garage or other enclosed location. Keep intakes and flue outlets clear, especially after snow, mud or travel.

Fuel smell, abnormal smoke, leakage or a CO alarm: stop use, move occupants away and have the installation inspected. Do not restart to conceal a fault. Contact emergency services if there is immediate danger.

Fire and burns: keep combustible materials away from the appliance, hot ducts and exhaust. Do not use the service compartment for storage. Allow cooling before inspection and keep children away from hot surfaces.

Power: use the nameplate voltage. Never increase a fuse rating or bypass protection. For a normal stop, allow the controlled cooling cycle to finish before disconnecting power.

Stop before refuelling. Fuel, combustion, gas and mains work require a qualified professional. Install and maintain a CO detector suitable for the application according to its own instructions.

Cooking appliance: operate while stationary and supervised, with appropriate cookware and a clear surface. Do not heat empty cookware. Do not assign heating mode to C18/C22 without validation; the shop explicitly lists it for C18H/C22H. For P45/SL45, confirm stability, moving-section locking and exhaust discharge before use.

02 Variant specifications

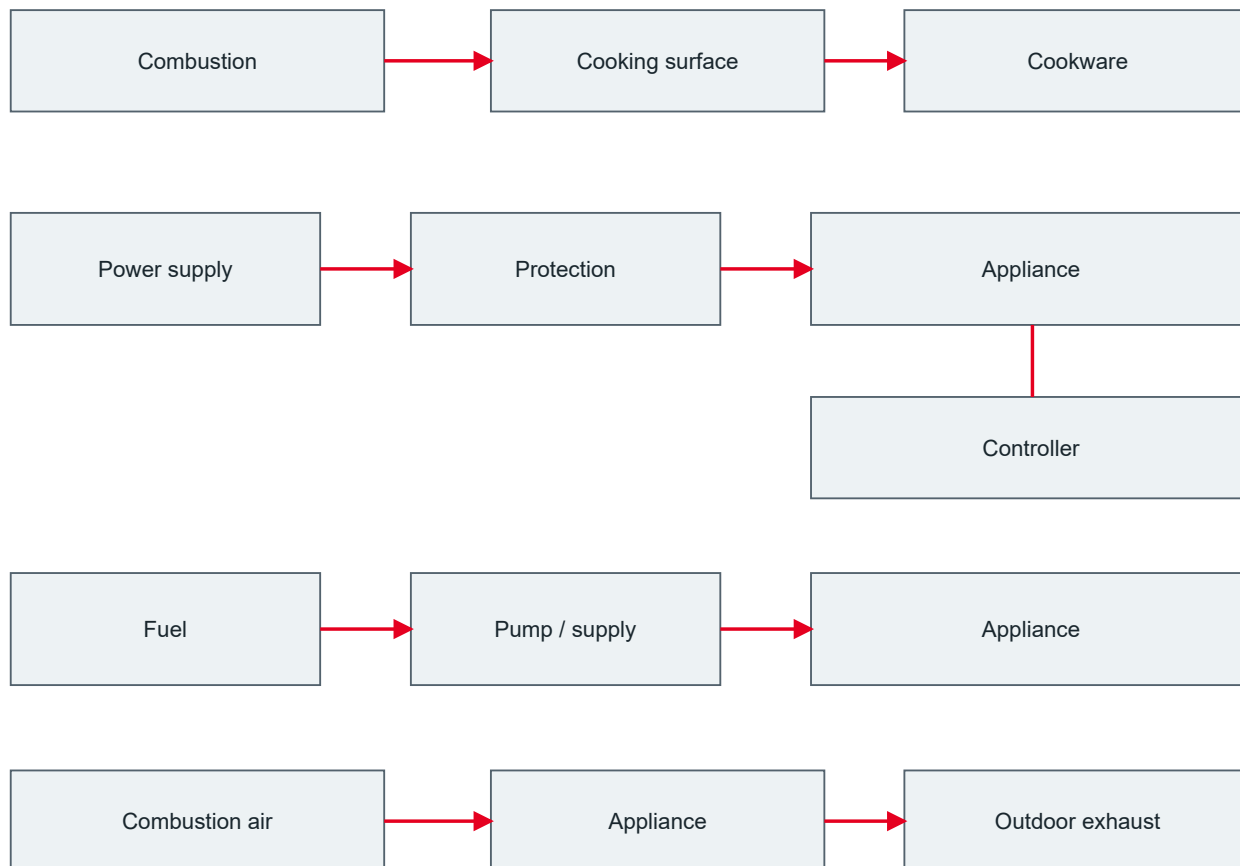
Common specification	Value
Fuel	Diesel
Operating voltage	12V
Heat output class	0.9-1.8 kW
Electrical supply	12 V DC
Starting current	8-10 A (briefly)
Average current	0.55-0.85 A (catalogue value)
Stated heat output	0.9-1.8 kW
Fuel consumption	110-192 mL/h
Standby current	1 mA
Hot-air flow	Up to 141 m³/h (catalogue value)

For unpublished values, use the supplied variant's nameplate and data sheet: starting current, fastening torque, pressure, pump flow and protection devices cannot be inferred from power.

03 Recommended applications and output selection

Select according to insulation, outdoor temperature, heated volume and air exchange. For domestic water: water demand, pressure and frost protection. Engine displacement and engine coolant volume are not applicable to this unit.

04 Assembly identification



Functional identification diagram. A revision-specific internal drawing must accompany any disassembly work.

05 Step-by-step installation

STEP 1 - Check the positioning

For C18/C22 and H versions, position the template for the actual supplied single or double zone. Maintain ventilation and clearances around and beneath the unit. P45/SL45: install outdoors on a stable support.

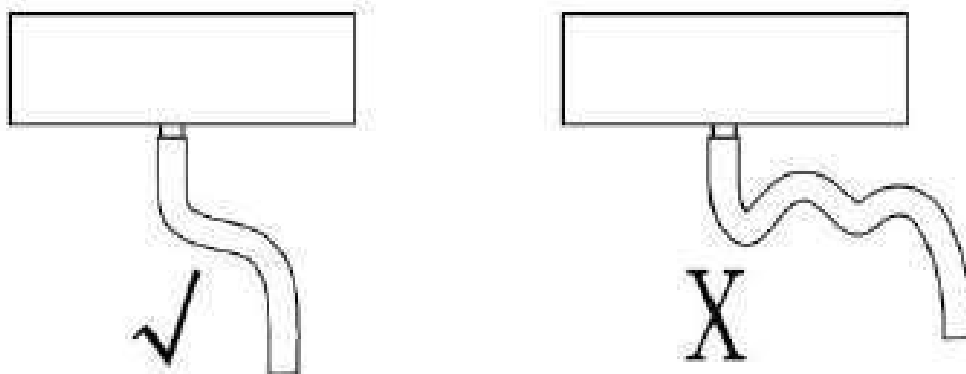
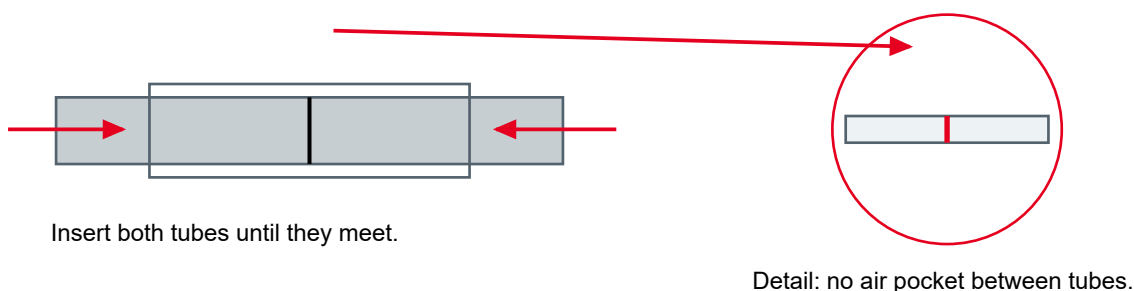
STEP 2 - Mount the unit

Use the support and fastening points for the version. On SL45 check leveling, slide travel and locking; no use while moving.

STEP 3 - Connect fuel and combustion circuits

Secure the pump, filter and lines without air pockets. Keep fuel away from the hot path. C18/C22: intake and exhaust remain separated from occupied space.

ACTION DETAIL - schematic



Exhaust: correct / incorrect installation

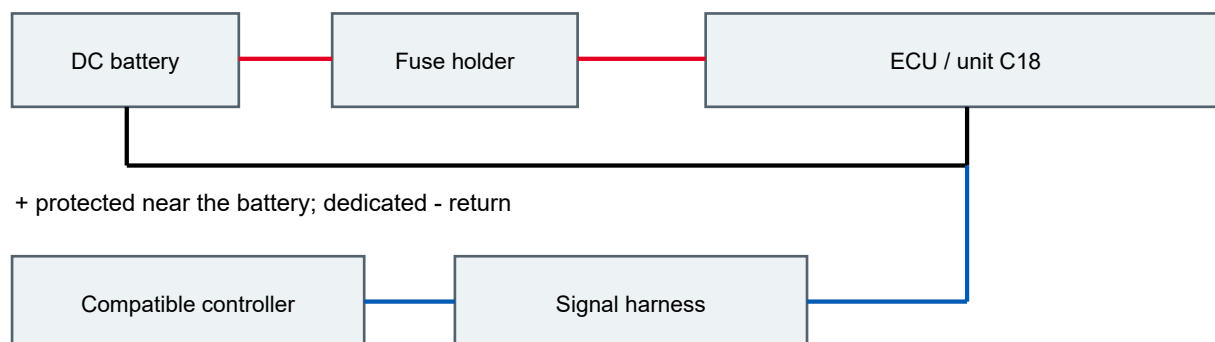
STEP 4 - Connect the harness

Identify power, controller, pump and sensors before connection. Keep the harness and protection devices specific to the cooker. An air-heater controller is not a replacement for a cooking controller.

STEP 5 - Test the modes

Supervise cooking with suitable cookware. On H versions only, check warm-air mode and the specified lid position. Stop and wait for cooling before cleaning or storage.

06 Electrical connections



Schematic. Pins, rating and voltage: use the supplied harness.

Maintain power during cooling. Normal shutdown uses the controller; do not install a switch that interrupts the cycle. Protect cables and connections against water, abrasion and heat.

07 Initial commissioning

Check	Result to verify
Rating plate and controller	SKU, voltage, fuel and connectors match
Mounting	Mountings, clearances, ducts and outlets checked
Fluid circuit	Filled and bled; no leaks
Supply under load	Voltage measured during starting
Complete cycle	Ignition, operation, setpoint and shutdown/cooling tested
Delivery	Rating-plate photo, measurements, date and installer recorded

08 Operation and controls

Use the supplied controller for starting, adjustment and stopping. Cooking remains supervised. Heating functions are only for variants designed for that mode.

Situation	Action
Before cooking	Check stability, power, fuel and absence of flammable material near the unit. Use a stable vessel suitable for the cooking surface. Keep air intakes and exhaust routes clear.
Cooking and heating	Adjust power gradually and supervise cooking. C18/C22 are cooking versions; warm-air mode is only for C18H/C22H configured for it. Do not cover a hot surface to simulate heating mode.
Outdoor versions	P45 and SL45: use outdoors, not in a moving vehicle. Extend and secure the SL45 mechanism before starting; prevent accidental retraction during combustion. Stop before refueling.
After cooking	Stop with the controller, wait for shutdown and cooling, then clean using a method suitable for the surface. Do not spray water onto electronics or the burner. Retract a sliding version only after complete cooling.

09 Maintenance and winterization

When	Work
Before use	Check fuel, battery, ducts, outlets, connections and absence of leaks.
After transport	Inspect mountings, cables, ducts and exposed components.
Before the season	Supervised test; full inspection of combustion and protective devices.
After repair	Suitable seals, leak test, complete cycle and measurements recorded.

Before use and after travel, inspect ducts, supports, openings, fuel lines and accessible connections. Once cool, remove external debris without directing water into the intake or flue.

Before the season and after storage, have the installation, battery, protection, tightness and combustion checked. Hour-based intervals, exercise-run duration and component life remain to be confirmed for the exact model and revision.

The user may keep access clear and clean cold surfaces using material-appropriate methods. Burner, exchanger, pump, sensor and ECU removal is qualified service work. Do not adjust fuel delivery or thermal protection.

After repair, require leak checks and a full cycle. Record date, hours, symptom, code, part SKUs and technician. Confirm applicable warranty terms with ATLOSON; no other warranty is implied.

10 Troubleshooting and fault codes

Symptom	Action
Display off	Check the permitted power supply, visible connection and identified protection device; a fuse that blows again requires professional diagnosis.
No ignition / flameout	Record the code and check fuel level and visible obstructions. Do not repeat starting or priming attempts; have fuel dosing and combustion checked.
Overheating / low heat output	Keep air passages clear. On a coolant circuit, allow cooling before checking the level; have air bleeding, circulation and pump checked. Do not bypass the sensor.
Smoke / odor / leak	Stop using the system and have it inspected before returning it to service. Do not tighten or repair a hot pipe.
Communication / remote control	Record the message and version. Have harness and protocol confirmed. For GSM, check the module and network availability with the installer.

Record the exact code before clearing it. Stop and allow cooling, check the power supply under load, then ducts and the fluid circuit. Correct the cause before a supervised test. A repeated fault requires workshop service.

11 Fault-code table - family controller

Use only with a controller displaying this set of codes. Gas, pump and heating-element outputs depend on the variant.

Code	Action
10 / 11	High / low voltage
25 / 26	Ambient sensor open circuit / short circuit
31 / 32 / 33	Ignition / combustion / flame sensor
51	Panel / ECU communication
61 / 62	Metering pump open circuit / short circuit
63 / 65	Glow plug open circuit / glow plug control
81 / 82 / 83	Combustion fan: open circuit / starting / speed
84 / 85 / 86	Heating fan: open circuit / starting / speed

12 Parts, kits and purchasing

Order by part number and variant. Drawing callouts are not SKUs. Check voltage, fuel and connector before replacement. A complete-system reference is not a maintenance kit.

[ATLOSON parts](#)

Records and support

Date / hours: _____ Work / parts: _____

Keep the invoice, SKU, serial number and history. For assistance, provide a nameplate photo, code and symptom.

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