

ATLOSON

THERMAL SYSTEMS

VATIRO T4000

INSTALLATION AND OPERATION MANUAL

OPERATION | MAINTENANCE | PARTS



HEAT DRIVES
POSSIBILITIES

01 Identification, safety and use

This manual accompanies model VATIRO T4000. Record SKU, serial number, voltage, fuel and revision before installation. Accessories, functions and protective devices depend on the supplied variant.

Cabin heating for vans, work trucks, recreational vehicles and mobile equipment. Select according to insulation, climate, volume and air exchange.

SKU	Fuel	Voltage
ATL-VAT-ER40-D12	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.

Air heating: cabin air passes through the heat exchanger and returns warm; it must remain separate from exhaust. Confirm duct size, length and resistance, return air, grilles and outlet protection. Do not close all outlets. No domestic-water circuit is documented for this family.

02 Variant specifications

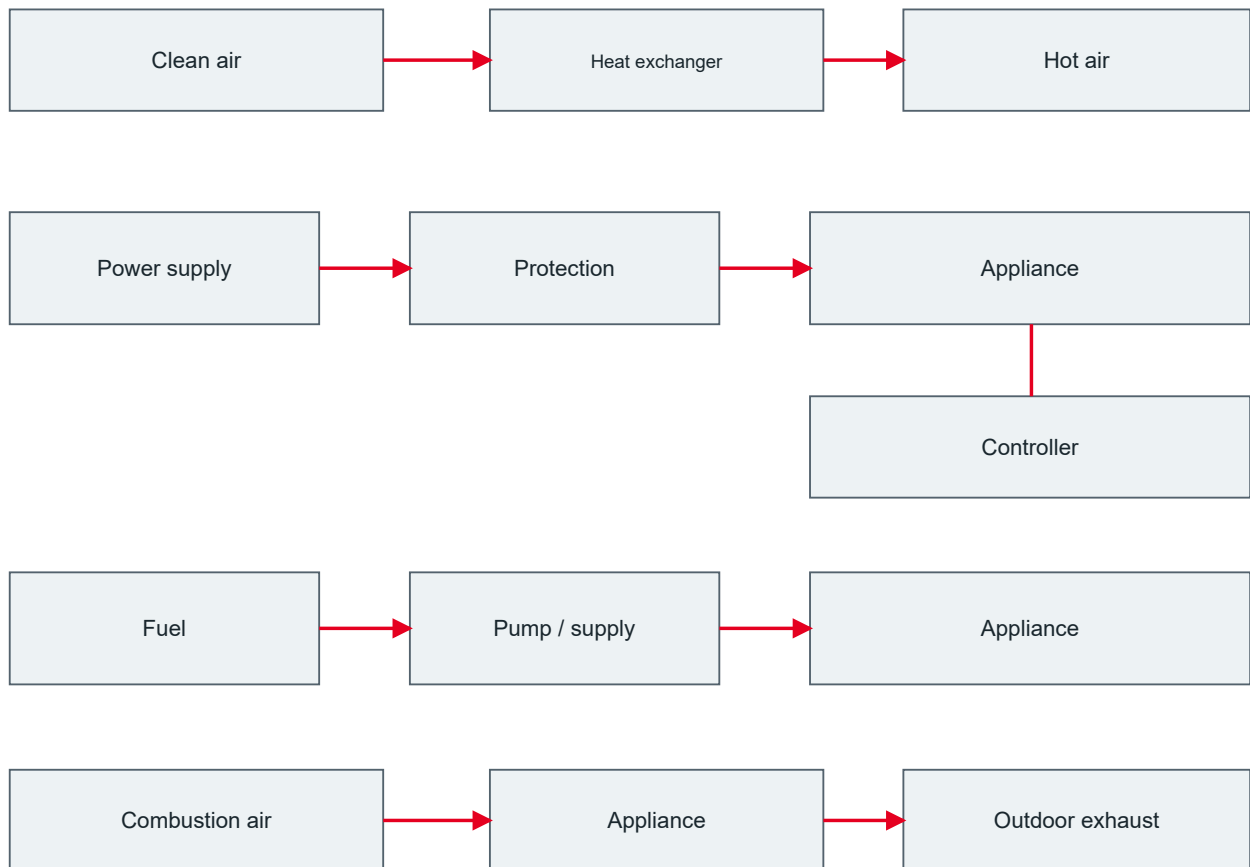
Common specification	Value
Fuel	Diesel
Operating voltage	12 V DC
Heat output class	4 kW
Heat output	4 kW class
Approximate output	≈13,600 BTU/h
Controller	Programmable digital controller

For unpublished values, use the supplied variant's nameplate and data sheet: starting current, fastening torque, pressure, pump flow and protection devices cannot be inferred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

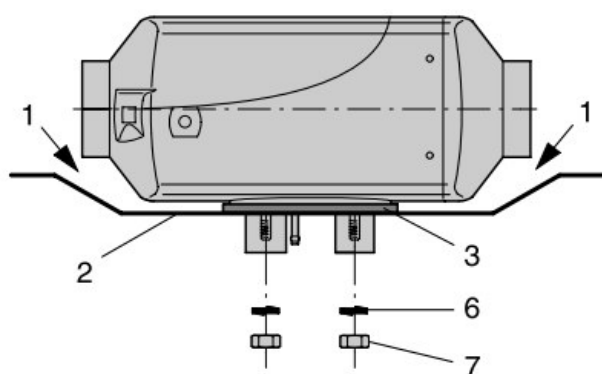
05 Step-by-step installation

STEP 1 - Prepare and secure

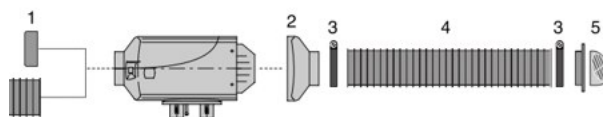
Select a rigid base. Check clearance for ducts and maintenance. Position the supplied gasket and template before drilling. Separate the occupied area from the combustion area.

STEP 2 - Distribute hot air

Provide a clear return-air route. Secure ducts without crushing them and protect outlets from luggage. Avoid direct recirculation from the hot outlet to the inlet.



Mounting, seal and lower connections

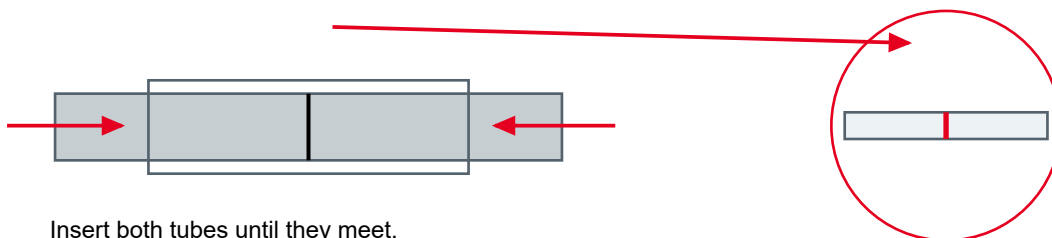


Air distribution

STEP 3 - Install the fuel supply

Secure the tank, pickup, filter and pump compatible with the variant. Cut the tube cleanly; insert both ends until they meet inside the connector to avoid bubbles. Keep lines away from hot parts.

ACTION DETAIL - schematic

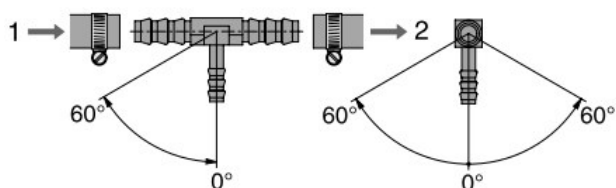


Insert both tubes until they meet.

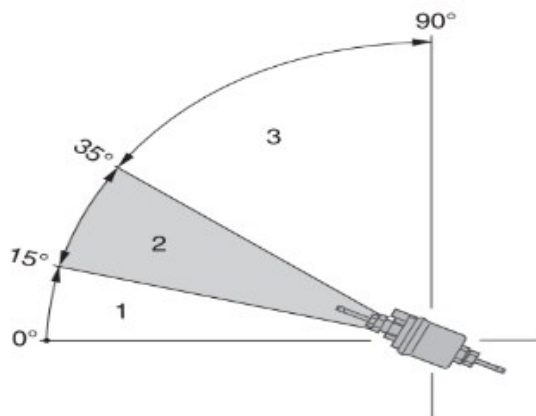
Detail: no air pocket between tubes.

STEP 4 - Install intake and exhaust

Use the supplied ducts. Secure ends and direct gases outside the vehicle, away from openings. Provide condensate drainage according to installation; no water pockets or contact with a fuel line.



Pump connections

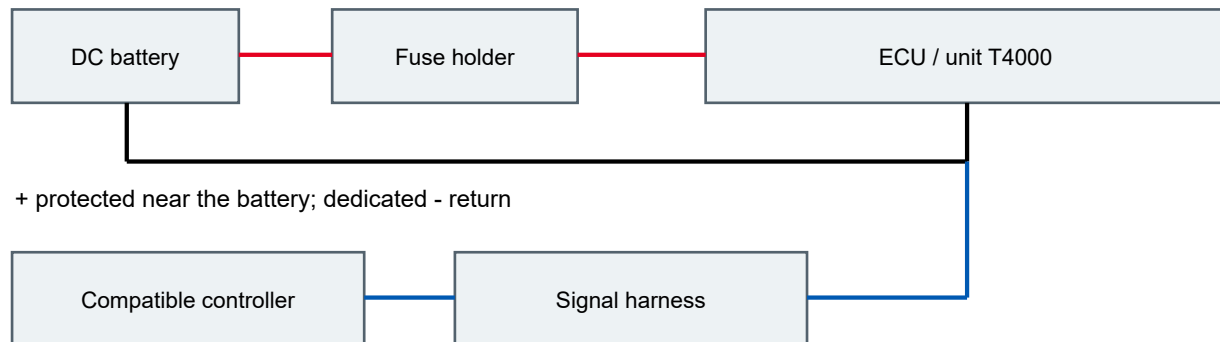


Pump orientation

STEP 5 - Connect and test

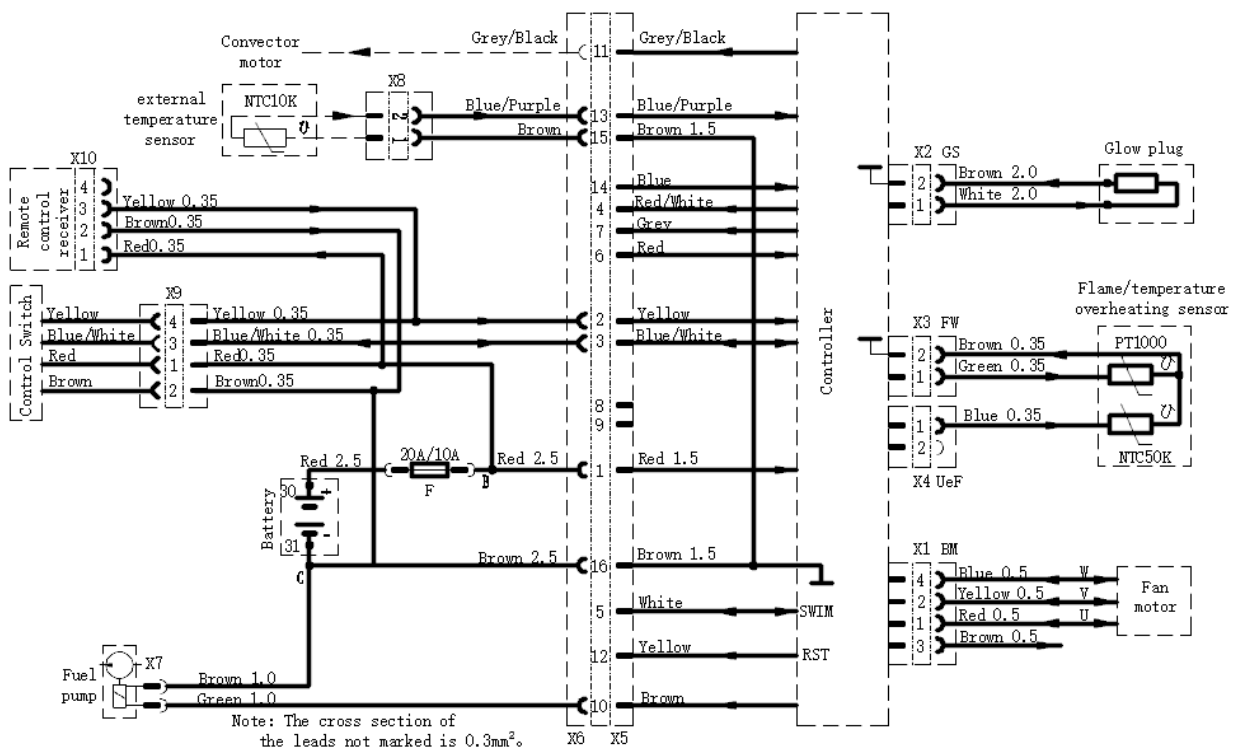
Connect the protected harness and compatible [AT1192](#) controller. Check polarity and voltage under load. Perform ignition, steady operation and complete shutdown; check odors, leaks and overheating.

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.



Circuit detail for the illustrated family. Drawing labels identify components; check connectors, voltage and options on the supplied harness. A mains connection cannot be inferred from nominal power alone.

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



[AT1192](#) - controls for the illustrated air configuration. The coolant configuration uses its own menus.

On the documented OLED revision, a long press on the confirmation knob from the working screen controls on/off. The reference defines long as more than 2 s and short as less than 2 s. Confirm this behaviour on [AT1192](#) before issuing customer instructions.

For the documented air heater, short-press to open mode selection, rotate to choose, short-press to confirm and use Back to exit. Reference modes are power, thermostat and ventilation. Do not transfer these modes to coolant heating.

The coolant panel has specific coolant-temperature and duration settings. Check the applicable ranges, durations, menus and thresholds for the ATLOSON unit on the rating plate and supplied variant sheet. Do not use shortcuts from an older seven-day timer on the OLED panel.

Clock and timers: confirm firmware-specific labels and sequence, set the clock and supervise a test schedule. Disable unused events. Priming, resets, Bluetooth and updates require the exact revision manual.

GSM: confirm module reference, available network, SIM, wiring, commands and status feedback. No SMS command is assumed here. The panel alone does not establish that cellular connectivity is fitted.

The supplied T2000 manual describes holding the knob for 2 seconds to start or stop, a short press to select and rotation to adjust. On the corresponding revision, “Variable Heat” selects P1-P7; “Thermostat” sets cabin air at 5-35 °C; “Ventilation” runs the fan only. Select modes with the heater completely stopped. Flashing “OFF” means cooling; a dark screen does not prove shutdown. These air modes must not be applied to coolant heating. Confirm panel and ECU revision if screens differ.

For the revision in the T2000 PDF, set “Time” first. With the heater stopped, open “Timer”, select the arrow beside “Timer1”, “Timer2” or “Timer3”, then set “WEEK”, “START”, “Duration”, “MODE” and its value; save with “OK”. The stated minimum duration is 10 minutes. S M T W T F S runs Sunday to Saturday. Selecting the program name enables/disables it; the arrow edits it. Review all three programs and perform an attended test. Disable every timer before refuelling, entering an enclosed workshop or a hazardous area. Confirm labels and limits on other firmware.

The gear button opens settings. “Information” exposes “Heater”, “Panel”, “Air pressure” and “Run time” where available. The T2000 PDF states: steady blue initializing; flashing blue communication lost; steady green operating; steady red stopping; flashing green fault. Photograph the message before leaving the screen.

GSM-compatible marketing does not include a module, SIM, service plan or protocol automatically. A “Bluetooth” menu does not establish GSM connectivity. Confirm hardware, network and exact commands; test remote control with an operator present.

Situation	Action
Before departure or overnight	Check fuel level, battery charge and air inlets/outlets. Remove snow, mud or luggage that could block ducts. Check that the exhaust does not discharge beneath a window, door or air intake.
Start and adjust	Start with the compatible controller and allow the ignition cycle to finish. Select thermostat mode to maintain a temperature or power mode for constant output, if available. An older rotary controller and AT1192 may use different sequences.
During heating	Monitor warm air, odors and noises. Do not close any duct required for minimum airflow. A sensor in a hot-air pocket can stop heating too early; correct its position instead of changing combustion parameters.
Shutdown and prolonged storage	Stop with the controller and wait for cooling to finish before switching off the main power. For T2000, follow the monthly maintenance cycle and hours listed in the maintenance section. For other versions, confirm the interval with ATLOSON.

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 - AIR

Table for the controller/ECU of this family. The same number may have a different meaning on another revision.

Code	Meaning
00	Missing or lost communication
10 / 12	Ignition failure / lockout by code
20 / 24	Flameout
30	Voltage too high
31	Voltage too low
40 / 41 / 42	Overheat or abnormal temperature by code
50 / 51	Flame detection / sensor circuit
52 / 53	Temperature sensor / circuit / limit
65 / 66 / 67 / 68 / 69	Temperature sensor / circuit / limit
70 / 71	Metering pump circuit
80 / 81 / 82 / 83 / 84 / 85	Blower: circuit, speed or start
90 / 91 / 92 / 93	Glow plug / circuit / version
A2 / A4	Overheat or abnormal temperature by code
A9	Abnormal power interruption
B4 / B5	Temperature sensor / circuit / limit
C0 / C1	Auxiliary output/equipment circuit
C4 / C5	Controller circuit
D0 / D1	ECU / memory
D3	Maintenance requested
E0 / E1 / E2 / E3	Ignition / glow / flame monitoring
EE	Unidentified fault

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.

Reference / purchase	Catalogue description
AT0003	Fuel Line Adapter 90° 7.5mm to 4.5mm
AT1028	Heat exchanger grommet
AT10351	TEMPERATURE EXTERNE SENSOR
AT10355	Heater non-plateau to plateau adapter cable
AT1037	Air duct 60mm*1m
AT1040	Heater base gasket
AT1048	Fuel line clamp ϕ 12-14mm
AT104897	Fuel Tank, 10L, 304 SS-2
AT104898	Fuel Tank, 10L, 304 SS
AT1049	Air duct clamp
AT1050	Air diffuser (grille)

Reference / purchase	Catalogue description
AT1056	Heater mounting plate
AT10561	Foam mounthing plate
AT10562	Mounting Plate L-shaped
AT10563	Non return valve
AT10564	Silicone Heat Resistant Sleeve, 22 mm, 1 m
AT10565	Silicone Heat Resistant Sleeve, 22 mm, 20 m
AT10566	Stainless Steel Fuel Tank 10L Gasoline Storage for Parking Heater
AT10567	Stainless Steel Thru Hull Fitting, 22 mm, 90° Base, Angled Connector, Boltless
AT10568	harness fuel pump wire cable
AT10569	T-Joint, 60 mm
AT1057	Self-drilling self-tapping screw ST5.5×25
AT10570	Air Duct Connector, 60-90 mm
AT10571	Air Duct Elbow Connector, 60 mm
AT10572	Air Duct Straight Connector, 60 mm
AT10573	Air Duct Y, 60 mm
AT10574	Air Ducting, 60 mm, 5 m Length
AT10575	Air Outlet with Adjustable Louvers, 60 mm
AT10576	Mounting Bracket AIR HEATER
AT1058	Intake grille
AT1060	Reducing tee 10-6-10mm
AT1146	FUEL TANK 10, PLASTIK
AT1155	Muffler
AT1158	Fuel pump 12V
AT1160	Fuel pump damper
AT1161	Fuel pump support
AT1166	Nut M6
AT1167	Flat washer 6mm*12mm
AT1169	Fuel filter
AT1170	Fuel line $\phi 5 \times 2.0$ mm L1m
AT1171	Fuel line $\phi 4$ mm $\times \phi 1.5$ mm L6m, clear
AT1172	Fuel line coupling 3.5*9.5*40mm
AT1173	Fuel line coupling 4.1*10.5*40mm
AT1174	Fuel line clamp $\phi 8$ -10mm
AT1175	Fuel line clamp $\phi 9$ -11mm
AT1180	Air inlet pipe 20.5 x 24mm x L900mm
AT1181	Air inlet pipe strap
AT1183	Exhaust pipe
AT1184	Exhaust pipe strap

Reference / purchase	Catalogue description
AT1185	Exhaust pipe clamp 24-28mm
AT1189	Fuel pickup tube
AT119105	Fuel Pump Connector
AT119106	Fuse, 24V (15A)
AT119107	Fuse, 12V (20A)
AT119108	Fuse Base
AT119109	Fuse Base 2
AT1192	Digital control switch, GSM compatible
AT15001	Diagnostics USB Cable
AT4003	T4000 MAINTENANCE KIT 12V DIESEL
AT4004	T4000 MAINTENANCE KIT 12V GASOLINE
AT4005	T4000 Heater Only diesel 12v
AT4006	T4000 Heater Only gasoline 12v
AT4009	T4000 Top Cover
AT4010	T4000 Supply side hood
AT4013	T4000 Heat exchanger
AT4014	T4000 Blower motor assembly 12v
AT4018	T4000 Burner assembly 12v - DIESEL
AT4019	T4000 Burner assembly 12v - Gsoline
AT4020	T4000 ECU 12v diesel
AT4022	T4000 ECU 12v gasoline
AT4023	Cabin air impeller
AT4024	T4000 Blower gasket
AT4025	T4000 Burner gasket
AT4026	T4000 Overheat sensor
AT4027	Blower motor support frame
AT4029	T4000 Glow pin 12v
AT4031	T4000 Wiring harness 12v (20a)
ATL4001	T4000 Heater Kit, Air Heater, 4kw, 12v, Diesel, Controller LCD - BT
ATL4002	T4000 Heater Kit, Air Heater, 4kw, 12v, Gasoline, Controller LCD - BT
ATM001003	VATIRO T4000 Instruction Manual

Records and support

Date / hours: _____ Work / parts: _____

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

[ATLOSON support](#)