



Avalanche 6.7kW Water Cooled Split

Safety Warnings

This machine must always be connected using earthed electrical plugs as required for all electrical appliances. London Cool declines any responsibility for any danger or damage whenever this norm is not complied with.

Any intervention on the machine using any instrument must be carried out only by a qualified technician.

When the machine is connected with a power socket, it must be in vertical position and any rough move must be avoided because it could cause some water to come into contact with electrical parts; it is therefore, recommended to remove the plug from the socket before moving around the machine; if any water may have been spread in the machine, following some rough handling of the same, then, the machine must be turned off and can be started up again only after 8 hours.

The machine must not be set running in narrow areas, which do not allow a proper diffusion in the room of the air coming out from the grille. It is, instead, allowed to set the machine on the sides near the walls.

The outdoor unit cannot be used in narrow areas. The air inlet is the motor fan side and the air outlet is from the opposite side, through the holes located behind the finned heat exchanger. Minimum distance between the outlet air side and front wall is 3 meters.

This machine has been designed and manufactured in compliance with the strictest safety rules. Therefore, pointed instruments (screw drivers, wool needles or similar) are not to be inserted in the grilles or in any other opening of the panels, especially which it is opened to remove the filter.

Never remove the front grille or open any part of the machine without removing first the plug from the socket.

The machine must not be cleaned using water. To clean the machine, use a wet cloth. Remember to disconnect the plug from the socket before.

The front panel should not be covered; it could cause damages or dangers.

The filter should be cleaned periodically (normally every month), but in dusty rooms it should be cleaned more often. Remember that when the filter is dirty, the air circulation and, consequently, the machine performance is reduced.

Use & maintenance

Description of the machine

This machine is a particular air condition, split type, in which the fluid conveys out heat is a blend of water and glycol. In factory the percentage of glycol is 15% to allow the machine to work down till -7 °C. if the machine should be left in colder

areas, more pure glycol up to a maximum of 30% should be added.

The indoor unit includes a rotary compressor and expansion valve, a low pressure switch (with automatic reset), a high pressure switch, a water/refrigerant heat exchanger, a circulating water pump, and a 5 speed motor fan (only 3 speeds used). Other components are, a defrost thermostat, a room temperature control thermostat. A condensed water lifting pump with a tank and 2 float switches.

Functioning and control panels

The compressor used R407C refrigerant and directly cools the air. The heat that the system produces is generated by a water/refrigerant plate heat exchanger and transmitted to a close circuit of glycol-water. A pump pushes the water/glycol blend to the outdoor unit, where the wasted heat is transferred to the external ambient air.

Front control panel includes:

- An Ambient Temperature Thermostat, located in the front control panel allows you to choose the desired room temperature with range 10-35 °C.
- A fan speed switch, also located in the front control panel, allows choosing among 3 different internal fan speeds.
- A Main Switch, allow to choose among: OFF position (nothing works) – FAN position (only indoor fan works in pre-set speed) – COOL position (the machine is cooling according with pre-set room temperature).

Warning lights:

Green light: Indicates that the socket is correctly inserted in a power plug

Pump alarm red light: If "ON", it means that the condensed water lifting pump is not working correctly and the level of water in the tank is too high: Machine stops and only the lifting pump can work; reset is automatic.

High Pressure Red Light: If "ON" it means that the pressure inside the refrigerant circuit is too high; reset pushing the button in the rear connector's panel.

Low Pressure red Light: If "ON" it means that there is too low pressure inside the refrigerant circuit automatic reset.

Start operations

Connect the internal unit to the outdoor one. There are 4 connectors. Two for water glycol (connect the same pipe No 1 with No 1 and No 2 with No 2; one for drained condensed water which is sent to outdoor unit; one for electrical power supply to outdoor motor fan.

- Insert the socket in an earthed plug
- Select desired fan speed
- Select the desired room temperature
- Move the main switch from **OFF** position to **COOL** or **FAN** position

The machine should start. If it is set in Cool function and the room temperature is higher than the set temperature is higher than the set temperature, the compressor after approx. 3 minutes starts to work.

If room temperature is lower than 18 °C, automatic defrost system can start working; periodically the internal unit fan stops and the two refrigerant electro-valves invert their

position. Thus, hot gas passes in the iced evaporator, and the ice falls down as water.

Periodic maintenance

Two maintenance operations are very important:
 Cleaning of the inside unit air filter, at least once a month, and cleaning of the outside unit heat exchanger.

The inside units filter can be cleaned under water flow from a faucet; to remove the filter from the machine, it needs to take away the lower front grille pushing it upwards and pulling it far from the machine.

For outside unit heat exchanger, cleaning must be done every time that some dust may be seen among the fins. This operation should only be done an air compressor pushing the air from outside to the inside of the unit.

If the machine does not work

Check if Green light in front panel in 'on', If it is 'off', check if there is correct power supply from plug and / or the fuse in the socket or the fuses inside the electric panel.

If High Pressure Light in 'on', check if water connections are correctly inserted, or if water pump is working correctly, If water level in the expansion tank is correct, or if outside fan is working correctly, or if outside temperature is too high (over 35-40°C situation can be critic).

If fuses are broken, check everything as above and also if inside temperature is too high.

If low pressure light is 'on', it may mean the inside air filter is very dusty; another cause may be that there is a refrigerant leak in the refrigerant circuit.

Technical Data

Cooling Capacity (25 °c 55% indoor, 30 °c Outdoor)	6650W
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Absorbed Power (25 °c 55% indoor, 30 °c Outdoor)	2700W
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Indoor unit airflow	
Max speed	1500 cm/h
Normal speed	1400 cm/h
Low speed	1150 cm/h
Outdoor Unit Airflow	2100 cm/h
Refrigerant R407C	790g
High Efficiency Compressor	Rotary
Indoor Unit Noise (at 3m in free field) at normal speed	49 dB(a)
Maximum distance between the two units	30m
Indoor unit Dimensions W x D x H (mm)	815 x 360 x 1030
Outdoor unit Dimensions W x D x H (mm)	582 x 360 x 460
Indoor Unit Weight	86kg
Outdoor Unit Weight	16.5kg