

HEATING SYSTEMS

Energy conservation is practiced seriously in Italy! Italian Law requires residents to run the heating system for a maximum of 14 hours per day and room temperature must not exceed 20°C (+2°C max tolerance) equal to 68°F (+3.6°F max tolerance). By Law, heating season is from 15 Oct through 15 Apr and this is the only time that your boiler should be turned to the “winter” mode. The local municipalities can extend the heating season in case of extraordinary weather conditions.

Operation and Maintenance: To ensure compliance with Italian law, room thermostats shall be set to 20°C/68°F. This temperature provides adequate comfort and economical energy management. Heating systems are designed/sized to reach an operating temperature of 20°C/68°F, keeping room thermostats at higher settings will result in the boiler running constantly. This translates in expensive gas/oil bills and shortens boiler life. NOTE: To control inside temperatures always lower the room thermostat setting, do not close valves on the individual radiators as it will create extreme pressure build up in the system and damage the boiler.

Settings When Absent: Check thermostats and interior lights before leaving home for extended periods. Lower the temperature on thermostats to 10°C/50°F, this will prevent pipes from freezing if the temperature drops. Turning off the heating system may result in water pipes freezing and you will be held liable for any damages that may occur.

Boiler Maintenance: According to Italian Law boilers must be serviced annually to assure optimum performance aimed at energy conservation and pollution prevention. In fact, besides regular servicing/cleaning, every other year a combustion exhaust fumes check is required. By Law this responsibility and associated costs are on the tenant and usually the Landlord will contact the technician and present the bill to the tenant.

OIL FIRED BOILERS (GASOLIO)

It is important for you to measure the fuel level in your tank on a regular basis. Please do not wait until your tank is empty or almost empty before you place an order for fuel. It is your personal responsibility to measure and order fuel to allow adequate time for delivery.

Common Problem: The most common failure of the system is when heating oil is delivered. The pressure of the fuel being pumped in the tank will loosen sediment from the bottom of the tank. If the burner is on/running while oil is pumped into the tank, loosened debris will be pumped into the system and plug the injector. This will stop the boiler from providing heat until the filter is cleaned. Following the steps below will help minimize the chance of problems:

1. The boiler must be turned off before oil is pumped into tank
2. You must wait at least two hours before turning boiler back on.
3. If you ran out of fuel, air bubbles may have entered the fuel line, then you need to push the reset button on the burner a few times to purge air out and restart the boiler.

NATURAL GAS AND LPG/PROPANE (BOMBOLA) GAS BOILERS

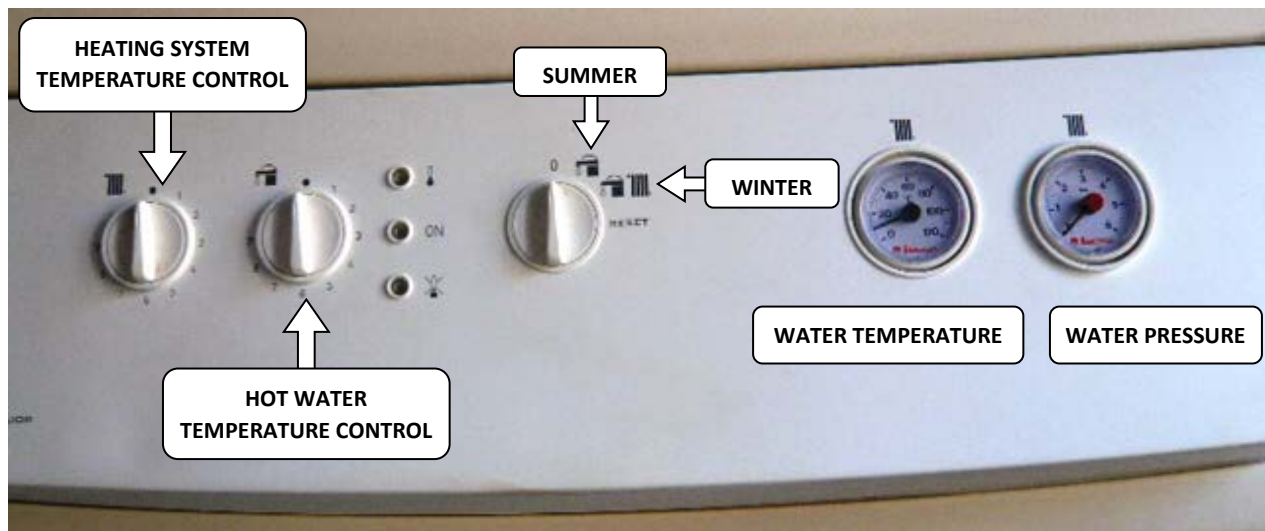
Natural Gas/LPG/ boilers are reliable, but require some attention to prevent failure. The most common failure is due to lack of water pressure in the system. Although there are many different brands of wall/floor mount boilers, all operate similarly.

Below are some tips on how to properly operate boilers:

- Keep boiler temperature (heating water) between 65°-75°C.
- Keep hot water temperature at 50°C. This will prevent excessive lime build up (lime starts to form at 55°C) and improves boiler performance while extending its life. If the boiler is not equipped with temperature gauge, adjust it between Min/Max settings.
- Keep boiler pressure between 1 and 2 Bar. Check pressure on a monthly basis during winter, restore if below 1. If pressure drops below 0.5 Bar, the system may automatically shut off and water circulating pumps may be severely damaged.

Follow the steps below to restore pressure and restart the boiler:

1. Turn off the boiler, open water feeder valve located under the boiler (black/blue knob) and restore pressure up to 2 Bar and then turn off. If you cannot locate the feeder valve ask your Landlord to help you.
2. Bleed radiators on upper floor first, air bubbles tend to rise. The bleeder valve is located on opposite side of radiator open/close knob. Use caution if radiators are hot, place container right under the valve nozzle to prevent spillage.
3. Bleed all air until water comes out continuously.
4. You may have to repeat step #1 if pressure drops to 0 while bleeding the system.
5. Once all air is bled out of the system, restore pressure between 1 and 2 Bar.
6. Turn system on.



Bombola Gas Canisters:

- Use only in a vented room or when plumbed to the exterior
- Do not place in direct sunlight or store empty gas canisters--return to supplier
- Check the expiration date of the hook up hose
- Do not use in bedroom, bathroom, garage, attic, stairways, rooms above or directly connected with any of these areas, boiler or furnace rooms
- Maximum length for hook up hose is 40" (1 meter)

VENTILATION

European and Italian homes are typically built with reinforced concrete frames and brick walls. Walls and ceiling surfaces are finished with mortar/plaster and water base paint. As water base paint is not waterproof, plaster finishing tends to absorb and retain humidity. These areas can become damp or wet as a result of a water leak or condensation of vapors produced by appliances and normal household activities.

Humidity is created by cooking, taking a shower, doing the laundry, watering the flowers and also by the inhabitants' breathing and perspiring. A family of four delivers to the air an average of 10 to 12 liters (3 to 4 gallons) of water per day. In situations of poor ventilation or high relative humidity, vapors will condensate on walls which are colder than internal air thus making it damp.

Ventilation: to increase ventilation or air movement (thus reducing humidity and condensation) within the house, open doors and/or windows when practical, use fans as needed, or purchase a dehumidifier to help control humidity and improve living conditions. This also helps in controlling mold which is explained in [Packet 4, Section 5](#).

AIR CONDITIONING

Air conditioning (A/C) in Italian homes is typically provided by wall mounted units called "Split Units". There is an internal unit controlled via remote, and an external unit. Most systems have a built in heat pump that can also provide heat, which may be convenient in case of main heating system failure. Refer to user instructions or check on the remote control if the "heat function" is available.

Thermostat: The remote control works as a room thermostat; therefore it should always be kept in the same room as the internal unit. Set the temperature to 26° C (78.8° F), if you set a lower temperature the A/C unit may run constantly thus wasting electricity. By Law room temperature must not be lower than 26°C (- 2°C max tolerance) equal to 78.8°F (- 3.6°F max tolerance).

Cleaning Filters: It is also important to clean the filters on the internal unit at least once a year before the cooling season and twice a year if the unit is also used during the heating season. A clean filter improves performance and saves energy! Remove and wash filter, once completely dry reinstall. There should be no water dripping from this unit. Check water pan and determine if drain hose is plugged.

