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IMPORTANT NOTE

THIS APPLIANCE MUST BE INSTALLED & SERVICED BY A PROPERLY QUALIFIED (IN ACCORDANCE WITH LOCAL & NATIONAL CODES) GAS INSTALLATION ENGINEER.
THESE INSTRUCTIONS ARE FOR THE FIRE'S CONTROL SYSTEM ONLY, AND MUST BE USED IN CONJUNCTION WITH THE INSTALLATION INSTRUCTIONS FOR THE GAS FIRE.

Fitting & Operating Instructions For The Thermatronic Radio Frequency Electronic Control System (TESC display version)

Important Notes

Temperature Limits of Electronic Components

It is absolutely necessary to ensure that the electronic control system components temperature do not rise above 60°C.

For Hole In The Wall installations (sunken burners) see the attached sketch showing our suggested installation arrangement. If you keep to air inlet and outlet free areas of 100cm² each and ensure that the void under the fire is properly backfilled (to avoid flue pull under the burner) then, assuming a normal room temperature, the temperature of the electronic components should not rise too much above 30°C. This allows a big margin of safety.

It is also very important to ensure that the fire is not subjected to intermittent flue downdraught, which can blow flames/gas down to the underside of the burner and cause overheating of the electronics.

Batteries

There are batteries both in the handset (2 x AA Good Quality Alkaline) and in the valve (3 x AA Good Quality Alkaline). The battery covers can be opened without tools by using your fingernail and pressing to unhook the clip that retains to cover.

- Replacing the batteries at least every 12 months will help prevent damage to the valve and handset owing to leaking batteries.
- Use only brand new high quality alkaline batteries (Energizer showed good results in our test).
- Replace always the complete set of batteries and do not mix brands.
- Keep contacts clean and do not bend the contacts
- As with all battery powered equipment, remove batteries if the fire is not used for long periods (to prevent old batteries from leaking and damaging the valve).
- Do not operate the fire without the battery covers in place.

For Hole In The Wall installations (sunken burners) the fire is supplied with batteries in a separate box that has a long lead which plugs into a socket on the standard electronics/battery box. This allows the batteries to be placed in an accessible place such as behind the air inlet grille, as shown on the installation sketch.

If using the extended battery box ensure that any batteries are removed from the electronics box battery compartment. This battery box is available as an optional extra for other installations, if required.

Dampness

All electronic equipment is sensitive to dampness and high humidity. The Thermatronic equipment must be installed in a completely dry place that does not access directly to outside air. If the fireplace has recently been rendered it must be allowed to completely dry out before the electronic equipment is installed

Gas Supply

In common with all other gas appliances, dirt and debris in the gas system can block the valve and gas injectors on this appliance, and faults caused by this are not covered by the guarantee. Pipework installation must comply with approved standards and practices. In any doubt as to the cleanliness of site pipework, install a sediment trap, or filter as close to the appliance as possible.

Handset & Valve Pairing

The handset is paired to the valve control during manufacture of the fire and is not forgotten if the batteries are removed.

If a new handset is obtained or the original handset loses communication with the valve control please refer to pages 7 to 8 in order to make a new pairing.

NOTE. On some burners such as the Fireboxx and "sunken" burners it is not possible for the user to access the Receiver Box to carry out a pairing. In this case a Qualified Installation Engineer will need to remove the burner to make a new pairing and this will involve disconnecting the burner from the gas supply.

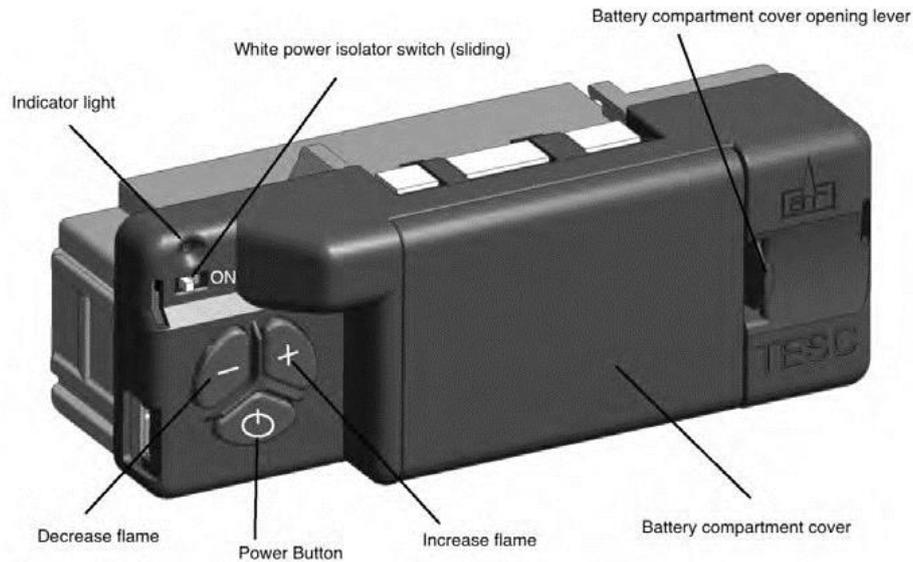
Control System Information TESC

The appliance is fitted with the Thermo Electric Safety Control (TESC). The system operates on radio frequency and has a remote control handset.

The gas control has an automatic ignition system, therefore does not have a standing pilot.

The control required 3 AA size alkaline batteries to be inserted under the battery compartment cover.

The handset and control device has been paired up and is ready to use.



Handset

Ensure the power isolator switch on the front of Fire Control is in the on position I.

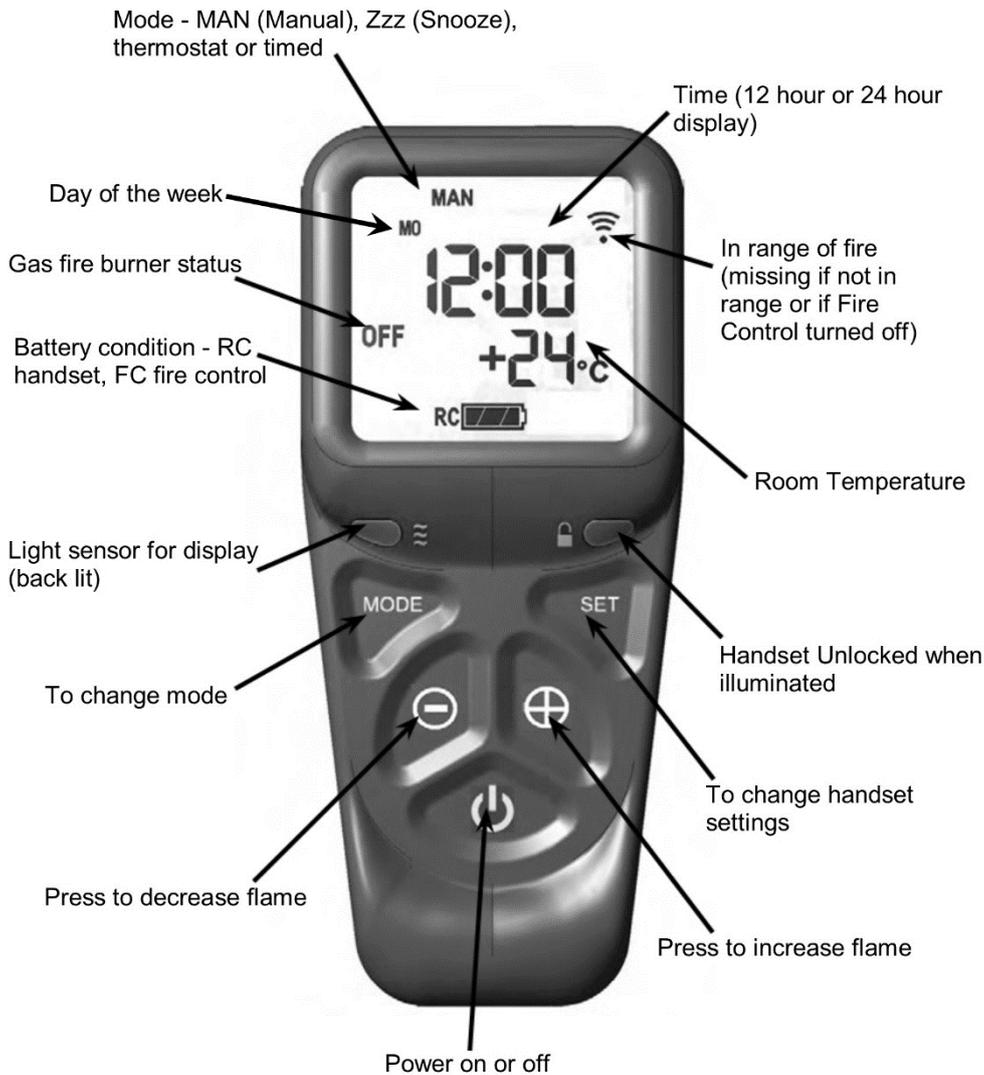
NOTE: For safety reasons a button must be pressed and released for the command to be recognized. Keeping hold of a button when pressing (unless otherwise instructed) will not be recognized as a command.

To operate the handset it must be held in your hand so always ensure you have a good grip around the handset to unlock its functions.

The green unlock light will illuminate to show when the handset is unlocked and ready to accept commands.

This operation must be performed each time you want to operate the handset.

Handset function and display



Lighting the appliance

Important – To operate the handset it must always be unlocked, this is carried out by firmly holding the handset in one hand, which will allow operation of all functions.

Step 1: Unlock the handset by holding it.

The green unlock light will illuminate. Keep the handset held to keep the control unlocked, to enable operation of the buttons.

Step 2: With the other hand press the power button for about 3 seconds until:

A short acoustic beep will be heard and the unlock light on will flash, the word "pilot" will appear at the bottom left hand corner of the display screen. At this point release the power button.

Step 3: The Fire should be lit within a few seconds, if it fails to light then repeat the process.

Adjusting the flame height

Step 1: Unlock the handset by holding it.

Step 2: Press the "+" button to increase the flame height, press the "-" button to decrease the flame height

Turning off appliance

Step 1: Unlock the handset by holding it.

Step 2: Press and release the power button, this will turn off both the main burner and pilot burner.

Restarting the Appliance

If the fire is extinguished or goes out in use, allow 5 minutes before attempting to restart following the lighting sequence.

If the fire shuts itself off repeatedly, do not use the fire, and have the flue and fire checked by a suitably qualified person.

If the appliance is not lighting after 4 ignition attempts, close the gas tap and call the installer.

Close the gas tap in case of malfunctions and/or poor operation and warn the installer. The appliance is designed to display a fault code on the handset in the event of a functional failure, this can be identified from the fault finding section.

Additional control functions

In addition, the remote control can also be used to set a number of additional functions:

- Time and date
- Temperature display in degrees Celsius or Fahrenheit
- Snooze mode
- Thermostat function

Caution - Although highly improbable, we cannot rule out that your appliance's ignition process can be started unintentionally through other remote controls. For example the remote control of your neighbours' gas heater, but also car keys and garage door openers. The result will be that your appliance will burn when you do not want it to.

Unintended ignition of your appliance could be solved or prevented by turning the ON/OFF switch or closing the gas tap near your appliance. This is the safest precaution if the appliance is not in use for long periods to turn the ON/OFF switch to the OFF position and to close the gas tap near your appliance.

Setting the time

Enter the SETUP menu. Hold the handset to unlock the keypad and keep held throughout the following steps. Press and hold SET for several seconds. The symbol in the top centre will flash. Press and release the "mode" button several times until the word "SETUP" appears flashing in the top right corner of the display. Press and release "set" again to enter the "SETUP" menu.

Here you can change the clock from 12 hour or 24 hour format, the day of the week, hour of the day, minute of the day and the display in Celsius or Fahrenheit.

To navigate through the menu "SET" moves to the next parameter and "Mode" move back to the previous parameter. "+" and "-" change the display parameter.

Setting the display for 12 or 24 Hour display:

The H indicates that it is time to set the timer to either 24 hour display or 12 Hour (AM or PM) display. Press the "+" or "-" button on the handset to toggle between the two settings. When you are ready to confirm the setting you want press the "SET" button to progress to setting the day of the week.

Setting the day of the week

Press and release the "+" and "-" buttons until the correct day of the week is shown on the display.

(Mo = Monday, Tu = Tuesday, We = Wednesday, Th = Thursday, Fr = Friday, Sa = Saturday and Su = Sunday).

Press "SET" to accept the day of the week and to progress to setting the Hour of the day.

Note: Whilst doing this setup pressing "SET" advances to the next display and pressing "MODE" will return you to the previous display setting.

Setting the Hour

Press and release the “+” or “-” button to change the hour to the correct hour and press set to store and to move to setting the minute.

Repeat this for setting the minutes.

Setting the temperature display to Celsius or Fahrenheit.

Press and release the “+” or “-” button to toggle between C and F. When the display shows the desired symbol, press and release the “SET” button to store.

As the important settings above have now been done, press and hold for a few seconds the “SET” button for a few seconds and this will exit the setup menu.

Snooze mode

Snooze mode is a time period you can set which will turn off the fire after a certain time period has elapsed. This function can be utilized during both the manual and thermostatic modes.

The snooze time period can be set before or during manual operation of the fire. Hold the handset to unlock as described previously and press the mode button as many times as necessary until the word MAN and the Zzz symbols are flashing at the top of the display. Press and release the set button and this will put the control into Manual snooze mode.

The default time period for the snooze time period is 1:00 hour. Pressing the set button again will show you the snooze time period remaining. This can be adjusted by pressing the “+” or “-” buttons. The timer period that can be set is from 1 minute to 4:00 hours.

After adjusting the time, press set again to enter the time setting required (or if left for a few seconds this time is now stored and used). Once this countdown timer has reached zero the fire will turn off.

Thermostatic mode

The handset has within it a thermostat sensor and this can be set so the fire will heat the room to match the temperature set in the handset.

There are 2 temperature types that can be set:

- Day mode temperature that has a sun symbol on the display
 - the default temperature is 24 degrees Celsius.
- Night temperature that has a half moon symbol on the display
 - the default temperature setting is 18 degrees Celsius.

Hold handset and press and release the mode button several times as necessary until the display has a thermometer symbol flashing at the top of the display. Press the set button to enter this mode.

Press the set button again to see the temperature setting that is set and the mode and on the left of the display is a sun symbol showing it's the day temperature.

If a different set temperature is required, while the display is showing this set temperature press the “+” and “-” buttons to alter the setting. When finished either press set or leave and after a few seconds the new setting will be accepted and the display will return to the time of day screen.

The fire will automatically turn to high or low rate depending on the set temperature. When the set temperature is reached while the fire is in operation, the fire reduces the burner power level each minute until the burner is off. The pilot will remain on for a further 30 minutes and if the set temperature is still too high, the pilot will then also extinguish.

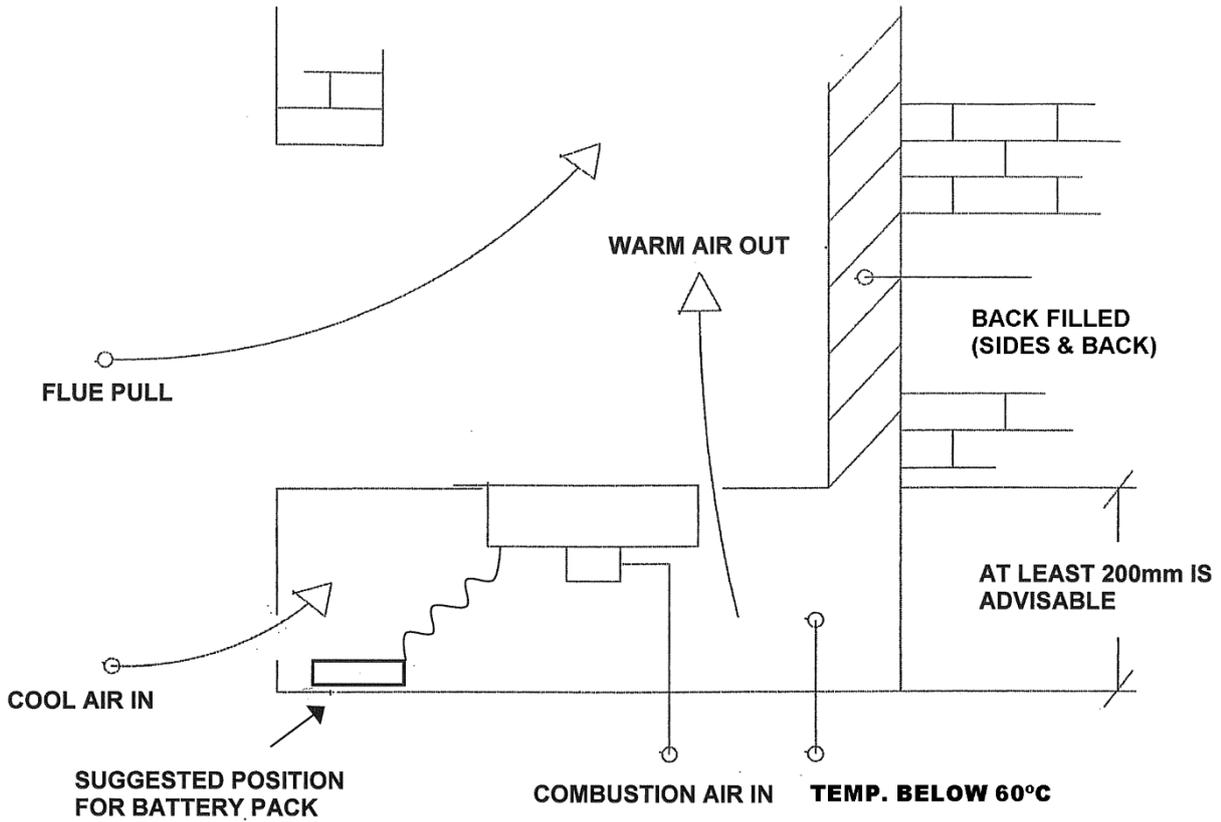
NOTE: If at any time the power button is operated during Thermostat mode, the control will cancel any thermostat operation and return the control to manual mode.

Fault Finding

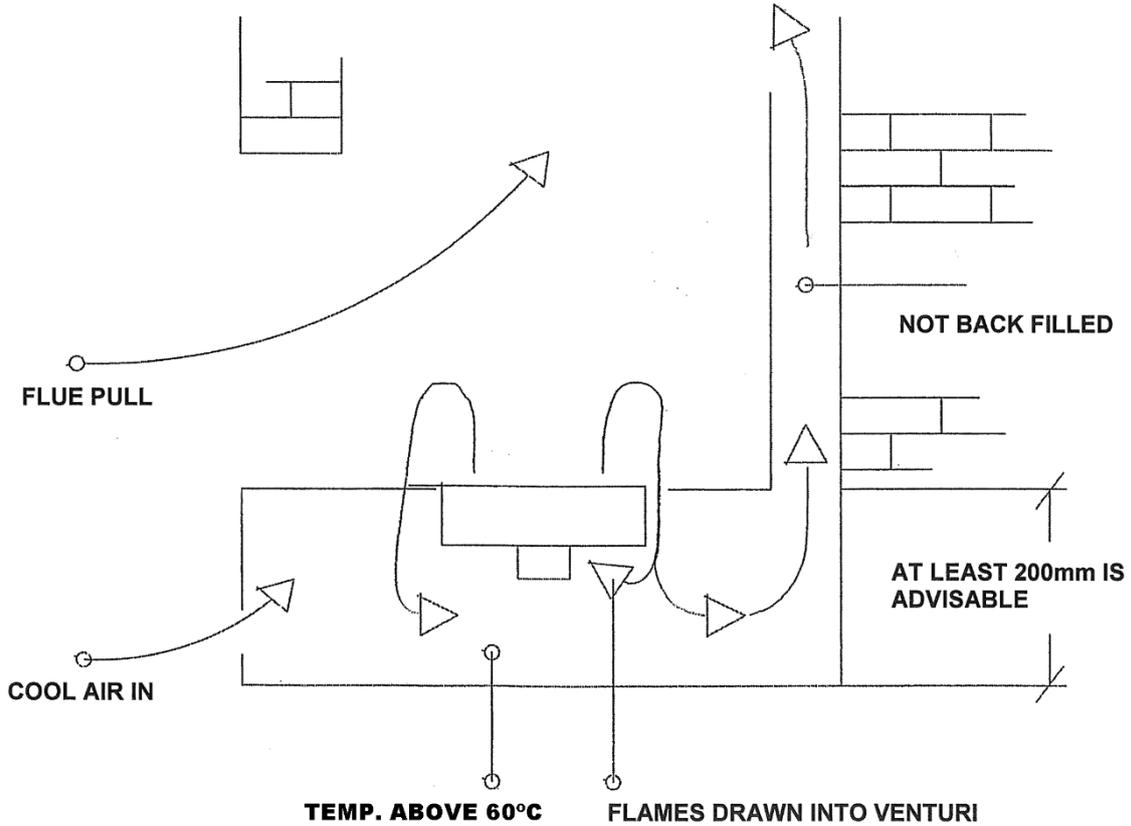
Symptom	Check List
Unit does not respond.	Check remote is working properly.
	Check battery power supply.
	Check wiring is correct.
	Check main switch is in the on position.
Handset does not work.	Check battery power.
	Check handset is in range (wifi symbol displayed on handset).
	Ensure the handset is paired.
Unit starts but no spark or weak spark.	Check spark lead is connected properly.
	Check spark electrode is in the correct area and the gap correctly distanced.
	Check spark lead is not arcing on other parts of the appliance
Unit sparks but does not light pilot.	Check for a good spark.
	Check the spark is in the correct area.
	Check if the ventilation is not too strong.
	Check if there is gas running through.
If there is no gas.	Check isolation tap/shut off valves are free from grease.
	Check isolation tap/shut off valve/s are on.
	Check for blockages.
If there is gas but pilot does not light.	Check pressure is correct.
	Check for blockages.
	Check for draughts.
	Check the pilot gas slots are clear.
	Check for a clear spark.
Pilot lights but does not light main burner.	Check the pilot flame is heating the thermocouple.
	Check ventilation is not too strong.
	Check ventilation is not too strong and the flame is not blowing off the thermocouple and flame rectification probe.
	Check gas pressure is correct.
	Check pilot and burner flame stability.
Burner lights but turns off within a short period.	Check ventilation is not too strong and the flame is not blowing off the thermocouple and flame rectification probe.
	Check gas pressure is correct.
	Check pilot and burner flame stability.

TESC CONTROL FAULT CODES		
FAULT CODE	DESCRIPTION OF FAULT	ACTION TO TAKE
E00	TESC locked.	Unlock the handset.
E01	Low current from thermocouple.	Reset.
E02	Too high ambient temperature.	Allow appliance to cool before relighting.
E03	Thermocouple not connected or bad connection.	Check all connections and rectify.
E04	Flame signal after burner shutdown.	Reset.
E05	Flame signal before burner has started.	Reset.
E06	Too low voltage on power supply to start the burner.	Replace the batteries in control valve.

(A) CORRECT INSTALLATION METHOD



(B) INCORRECT INSTALLATION METHOD



THE SIGNS OF AN INCORRECTLY INSTALLED GAS FIRE ARE WHITE BURNT PAINT ON EITHER THE SIDES, BACK OR PILOT CUT OUT

THIS SECTION IS ONLY TO BE READ IF YOU HAVE OBTAINED A NEW HANDSET OR IF YOUR HANDSET HAS LOST COMMUNICATION WITH THE VALVE CONTROL

IMPORTANT NOTE: The handset is paired to the valve during manufacture of your fire and is not forgotten if the batteries are removed

The time on the display screen will be lost after some minutes of no power but the pairing will remain. If you only need to restore the time to the display see the relevant section in the subsequent pages of these instructions.

If the green indicator on the handset is flashing like a heartbeat and the communication symbol is missing on the screen (see photo below) it is not in communication with the valve for some reason.

Potential causes are:

- The slide switch on the valve not in the on (I) position
- The batteries need replacing in the valve
- The handset is too far away from the fire (it needs to be some within a few metres)

Check and rectify the above. If the green light is still flashing and the communication symbol is missing from the screen, then the pairing on the valve may have been accidentally altered and the handset will need to be reset and a new pairing performed to restore communication.

Do not press the buttons on the valve to make a new pairing. If you do then you will have to reset the handset to accept a new pairing and make a new pairing, see the sections on restoring handset communication).

Restoring communication with a display type handset

☎ If the handset for whatever reason has lost communication with the Fire Control valve the green light will be permanently lit and pulse brighter, when held like in a firm handshake.

In addition the communication symbol (shown left) and other symbols will be missing from the display and it will appear as shown.



To reconnect do the following:

Reset the handset to clear the old pairing and enable it to accept a new pairing:



- With good batteries inside hold the handset (like in a firm handshake) to unlock the keypad **and keep hold of the handset while doing the following:**
- Press and hold the SET button and keep it held for about 3 seconds until you hear a second beep. Release the SET button and PROG appears at the top left of the handset. SETUP should also be flashing at the top right corner of the display.
- When SETUP is flashing, press and release the SET button to enter the menu. H24 (or 12) will be flashing. Press and release SET button about 9 more times until display shows CA with flashing 0. Press and release the + or – button once to change the CA0 to CA1. Then press and release the SET button once again. The display will now show 7ESC r4 (or some other number next to the r).
- The handset is now at factory reset condition and a new pairing can be performed, see next section.

To see a YouTube video of the above go to YouTube and enter the following as a search: TESC Gas Control – Display Handset – Factory reset.

Pairing the handset (with LCD display)

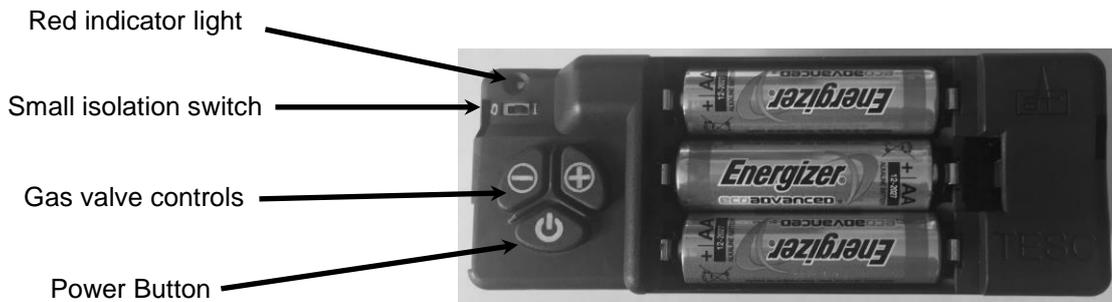
Ensure that the handset and gas fire control have good batteries, as described in the battery section above.

If the handset is in its factory reset condition (as performed above), the display will 7ESC plus the letter r and a number (as shown in the photo).



Picking up and holding the handset will unlock the keypad and the green light will illuminate a solid green (and the LCD backlight may come on if the room is dark enough).

NOTE: Ensure the small isolation slide switch on the top left of the gas fire control is slid to the right, (I) position to turn the power on to the valve.



- Place the handset near the fire, i.e. within a metre (3 feet). No need to hold the handset at this time.
- Simultaneously press and hold the - and + buttons on the gas valve control (not the handset) until the red light on top left of fire control begins to flash rapidly, (it will take about 5 seconds to start flashing), then immediately release the - and + buttons and quickly pressing just the power button on the gas fire control valve. Note: Pressing of the power button must be done within 1 second of the red light coming on. If not done quickly enough, then the above must be repeated until done correctly.

You will then hear an audible sound from the handset and the display will show the symbol " 1 - Γ " and the green light on the handset will be flashing. You now have 60 seconds to accept the pairing. To do this pick up and hold the handset and hold it like a handshake to activate the unlocking of the keypad and press and hold the "SET" button for a few seconds.

- You will hear a few beeps from the handset and the display will change and enter the setup menu.
- Whilst maintaining your grip on the handset, you can now set the display functions of the handset. Momentarily pressing and releasing the SET button advances through the settable features and pressing and releasing the MENU button returns to the previous one. Pressing + or – changes the displayed information, for example:
 - H 24 – This is the 12 hr or 24 hr time format. Pressing and releasing + or – will change H24 into H12. Once happy with that setting, press and release SET to move to the day of the week.
 - Day of the week is Mo, Tu, We, Th, Fr, Sa, Su. Again pressing and releasing +/- will change the day and when happy press and release SET to move to the hour of the day. (Pressing Mode button at this stage will return the menu to the previous one, in this case H 24/12).
 - Do the same for the minute of the day and the temperature display C or F.
 - The remaining parameters do not need adjusting so keep pressing the SET button several times (about 7 times) to advance the display to the end of the menu.
- You know when the setup menu has ended as you will see the communication symbol (3 arcs of a circle) in the right hand side of the display. This symbol indicates that the handset is in operation mode (not setup) and in good communication with the fire valve control.

IMPORTANT NOTE: Even in case you do not complete all of the setup, the pairing is still stored once accepted by pressing SET the first time. The handset will re-enter next unlock (pick up) or by entering another setup mode manually. Do not send pairing request again from the valve! If this is done then another factory reset of the handset required and reset and new pairing done again.