Instruction Manual

For all Premium Hotplates and Hotplate Stirrers

PREMIUM DIGITAL INTERFACE HOTPLATE PRODUCTS

SP150x, SP150x/120 SP152x, SP152x/120, CP152x, CP152x/120

x is used for the letter denoting colour variant blue (B), black (K) , white (W), avocado (G), red (R), tangerine (T), violet (V) and pink (P)

Cole-Parmer®

English

Table of Contents

About This Manual

This manual is designed to assist you in optimal usage of your new premium hotplate. To get the best performance from your equipment and for your own personal safety, please read these instructions carefully before use

Before discarding the packaging check that all parts are present and correct

Product Voltages

All hotplate stirrers and hotplates are available in different voltages (230/120VAC)

Before initial use, check that the unit you received is the correct voltage for your location

Safety Information

This instruction manual contains important operating and maintenance instructions which must be read, understood and followed by the product user. Failure to use this instruction manual may degrade or defeat the protection normally provided by the product. Read this instruction manual prior to product use and keep this information for future reference

Product Symbols

Throughout this instruction manual the following symbols are shown to identify conditions which pose a hazard to the user, or to identify actions that should be observed. These symbols may also be shown on the product or its packaging

Warning symbol

Caution hot surface

Attention Magnetism. Effects of magnetic field should be taken into account. (e.g. cardiac pacemakers, data storage devices etc.)

Recyclable packing material

Stir symbol

Hotplate symbol

BioCote

Provide lasting protection against microbes, such as bacteria, mould and viruses

Do not dispose of product in normal domestic waste

Warnings

Personal Injury

- Do not use this product in a manner other than stated in the operating conditions section of the manual as protection provided to the equipment may be impaired
- This equipment is designed for use in laboratory environments by persons knowledgeable in safe laboratory practices
- Do not touch the hotplate or any glass vessel whilst in use

Electric Shock

- This product must be connected to a grounded power outlet for safe functioning
- Use the power cord supplied with the unit
- Do not open the product case - only qualified service personnel should attempt to repair this product
- Position the product for use so that the power cord can be easily disconnected without having to move the product
- Disconnect the power cord before moving or cleaning the unit
- Ensure the mains power supply conforms to the rating found on the rating label on the underside of the unit
- Never operate the equipment without a connection to earth. Ensure the mains supply voltage is correctly earthed/grounded with current area legislation

Product Damage

- Keep the product dry and clean
- Do not immerse the product for cleaning
- Do not heat or stir volatile or flammable materials
- These units are not explosion or spark proof
- Do not use the product near volatile or flammable materials
- A ceramic top which is scratched, chipped, chemically etched or otherwise damaged must not be used

Operating Conditions

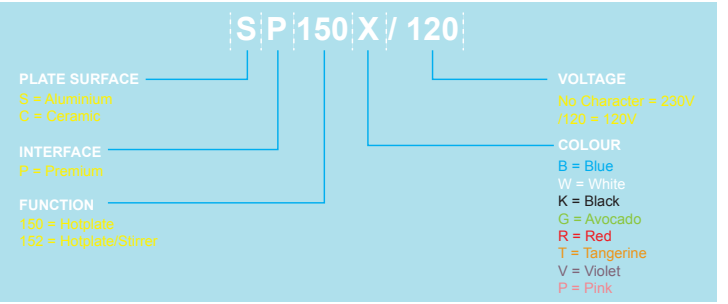
Hotplates and stirrers are designed for safe functioning under the following conditions:

- For indoor use in a well ventilated area
- Ensure equipment is used on a dry, non-combustible, solid work surface with at least 300mm suitable clearance all around from other equipment
- Ambient temperature +5°C to +40°C
- Altitude up to 2000m
- Relative humidity not exceeding 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C
- Mains supply fluctuations not exceeding 10% of nominal
- Energy-consuming equipment to be supplied from the fixed installation: Over-voltage category II
- Pollution degree 2
- This equipment is not designed to be used in hazardous atmospheres or with hazardous materials
- Following a mains interruption the unit will not restart

Unpacking & Contents

Catalogue Number Coding Description

A catalogue number for each type of hotplate is descriptive. The method of coding is as follows:



Catalogue Model Number

Product Identification

Premium Hotplate / Stirrer - 230VAC		
Colour	Metal (Aluminium)	Ceramic
Blue	SP152B	CP152B
White	SP152W	CP152W
Black	SP152K	CP152K
Avocado	SP152G	CP152G
Red	SP152R	CP152R
Tangerine	SP152T	CP152T
Violet	SP152V	CP152V
Pink	SP152P	CP152P

Premium Hotplate / Stirrer - 120VAC		
Colour	Metal (Aluminium)	Ceramic
Blue	SP152B/120	CP152B/120
White	SP152W/120	CP152W/120
Black	SP152K/120	CP152K/120
Avocado	SP152G/120	CP152G/120
Red	SP152R/120	CP152R/120
Tangerine	SP152T/120	CP152T/120
Violet	SP152V/120	CP152V/120
Pink	SP152P/120	CP152P/120

Premium Hotplate - 230VAC	
Colour	Metal (Aluminium)
Blue	SP150B
White	SP150W
Black	SP150K
Avocado	SP150G
Red	SP150R
Tangerine	SP150T
Violet	SP150V
Pink	SP150P

Premium Hotplate - 120VAC	
Colour	Metal (Aluminium)
Blue	SP150B/120
White	SP150W/120
Black	SP150K/120
Avocado	SP150G/120
Red	SP150R/120
Tangerine	SP150T/120
Violet	SP150V/120
Pink	SP150P/120

What's Included in the box

- Instruction book
- Mains moulded plug - hot (UK and EURO variants) or hot US variant
- Stuart Hotplate product
- Stir bar x 2 (HH114) - supplied with stirring variants only
- Warranty card
- Important notice leaflet - supplied with heating variants only

Electrical Installation

THIS EQUIPMENT MUST BE EARTHED

BEFORE CONNECTION PLEASE ENSURE THAT THE LINE SUPPLY CORRESPONDS TO THAT SHOWN ON THE RATING PLATE LOCATED ON THE OUTER CASE

NOTE: Refer to the equipment rating plate to ensure that the plug and fusing are suitable for the voltage and wattage stated.

The wires in the mains cable are coloured as follows:

BROWN - LIVE

BLUE - NEUTRAL

GREEN/YELLOW - EARTH

Should the mains lead need replacement, a cable of 1mm^2 of harmonised code H05RR-F or H05RN-F connected to an IEC hot condition plug should be used.

IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN

American mains wire colours required (section Electrical Installation)

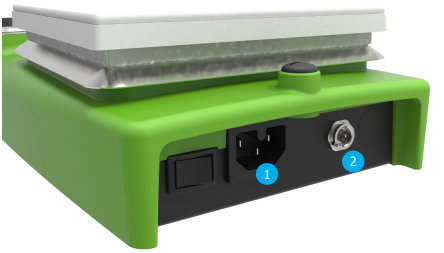
Black - LIVE

White - NEUTRAL

Green - EARTH/GROUND

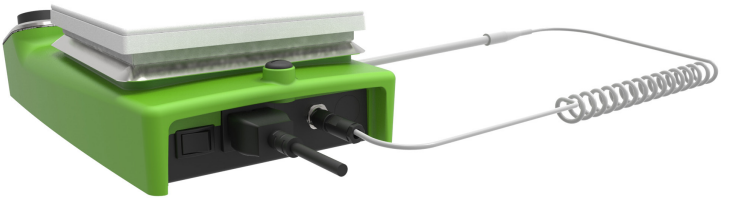
Product Connections

1. IEC power socket - connect the mains supply cable into this socket
2. 2-way socket - Connect the PTFE probe into this connector



Connect To The External PTFE Probe

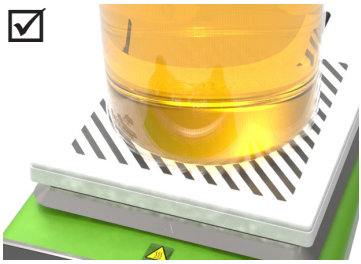
1. Turn the hotplate mains switch to the OFF position at the rear of the hotplate
2. Disconnect the mains cable from the IEC socket
3. Connect the PTFE probe 2-way plug to the DIN probe socket at the rear of the hotplate
4. Connect the mains supply lead to the IEC socket



Ceramic Hotplate Hot Zone

When using the ceramic hotplates at temperatures over 180°C, the base of any vessel must not make contact with the ceramic plate top outside of the hot-zone - this is to avoid damaging the ceramic hotplate surface.

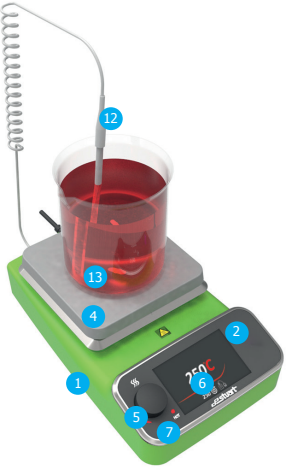
Note: Modular heating blocks are not suitable for use with ceramic top hotplates

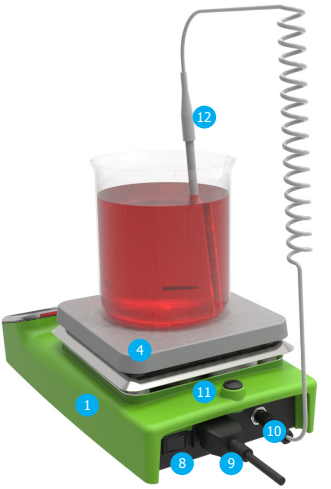


Premium Hotplate

SP150, SP150/120

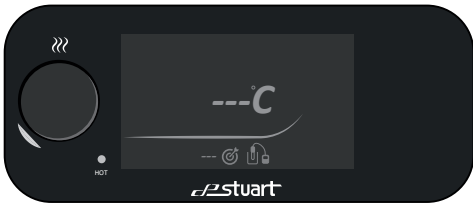
1. Top casting (blue, white, black, avocado, red, tangerine, violet and pink)
2. Control interface
3. Ceramic top plate
4. Aluminium top Surface
5. Heater control dial
6. TFT - LCD Digital display
7. Hot LED
8. Mains on/off switch
9. IEC power socket
10. 2-way Probe socket
11. Retort rod fitting
12. PTFE probe
13. Magnetic flea



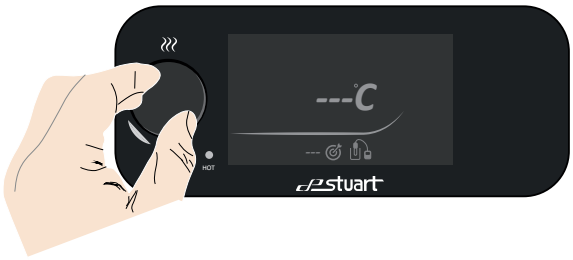


Adjusting the Display Brightness

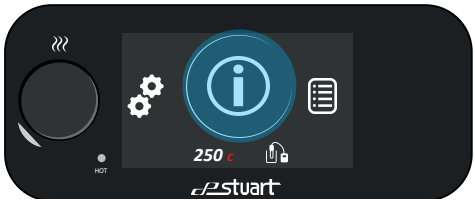
a. At power up the display screen will be greyed out



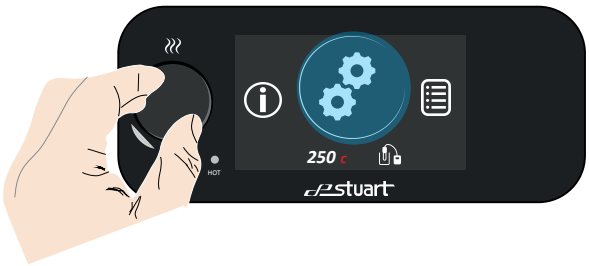
b. Click down on the heat control knob for 1.5 seconds to enter the menu carousel



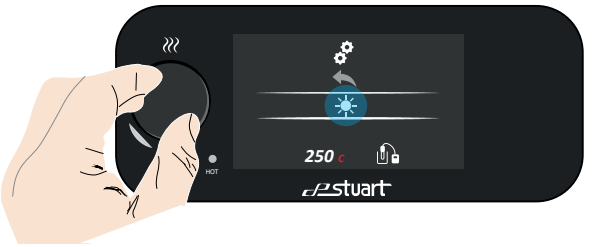
c. Check if the set-up icon is displayed centrally inside the circle. If not turn the heat knob until the set-up icon is displayed in the circle



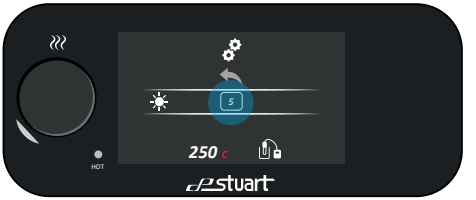
d. Click down on the heat control knob to enter set-up mode



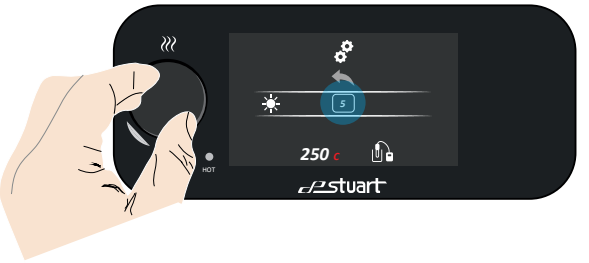
e. Using the heat control knob scroll through the menu to select the brightness icon option



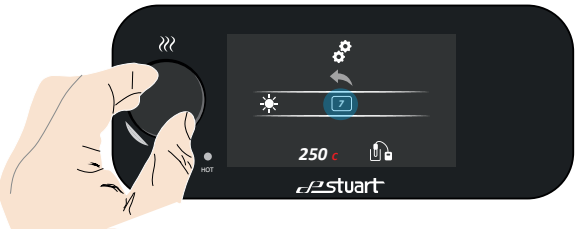
f. Click down on the heat control knob to enter brightness set-up. The default setting is 5, with a scale of 1 to 10 with the brightest level being level 10 and the darkest level 1



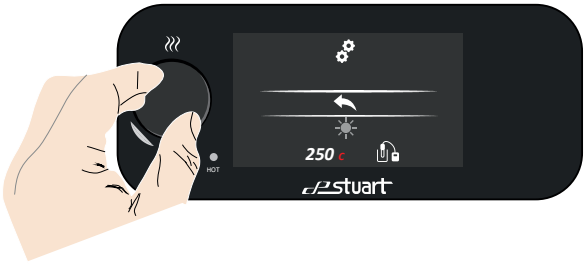
g. Click once to enter brightness adjustment (box appears around the number)



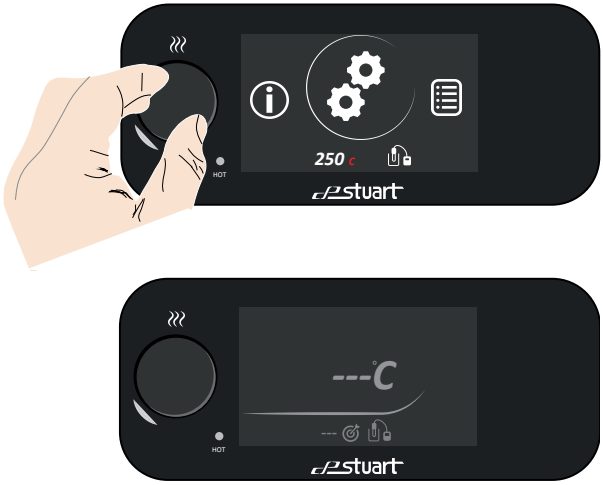
h. Scroll through the brightness level options and select the desired brightness level, click once to select this level (in this example Level 7)



i. This will then return you to the set-up mode screen

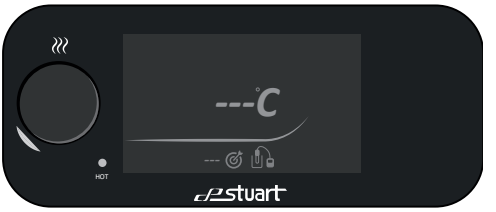


j. To return to the display screen hold down the heat control knob for 1.5 seconds

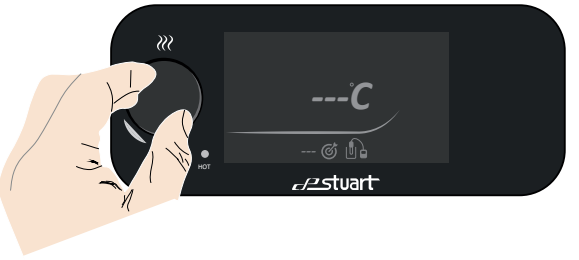


Finding out Information About the Unit

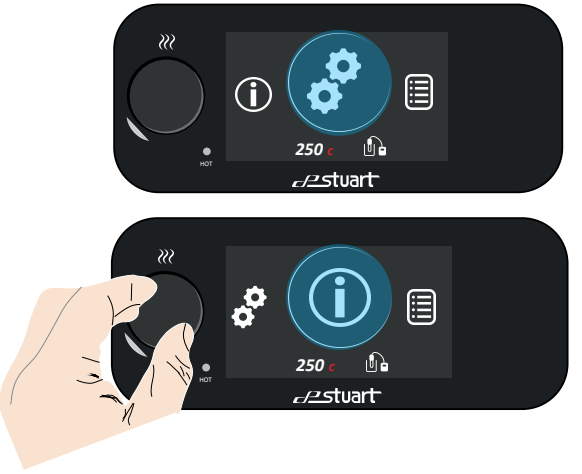
a. After power up the display will be greyed out



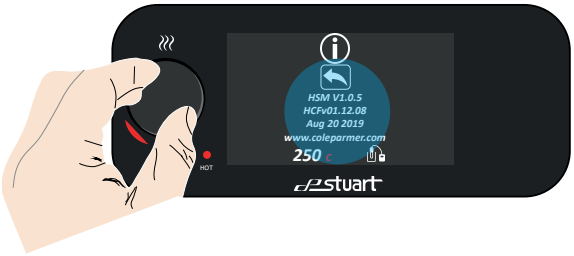
b. Click down on the heat control knob for 1.5 seconds to enter the menu carousel



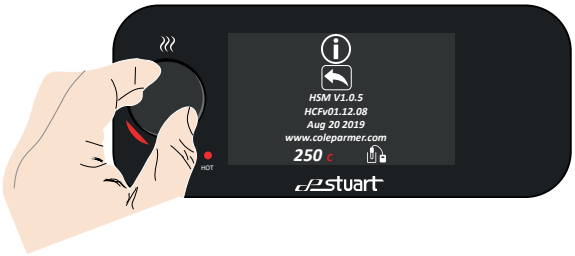
c. Check if the about icon is displayed centrally inside the circle. If not turn the heat knob until the about icon is displayed in the circle



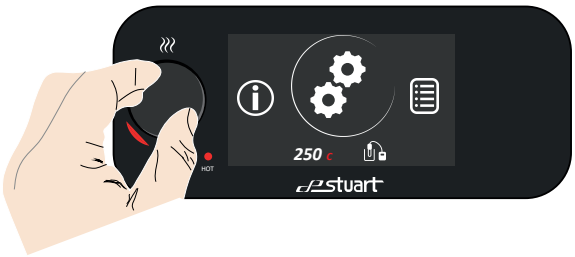
d. Click down on the heat control knob to enter about mode. The screen will display the software version and Cole-Parmer Ltd details

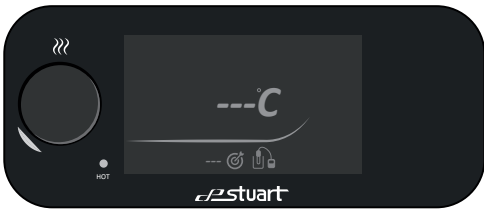


e. Click the back arrow icon and click to return to the menu carousel



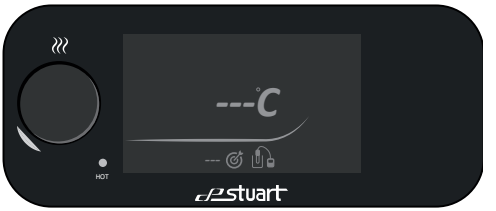
f. To return to the display screen hold down the heat control knob for 3 seconds



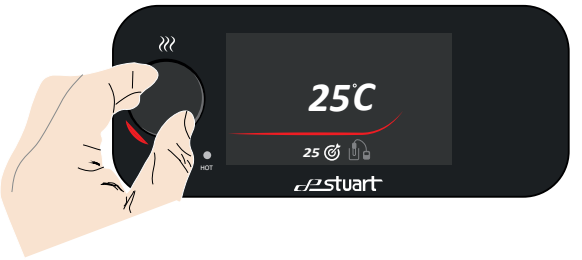


Setting the Heater Temperature

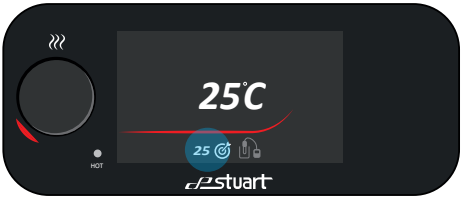
a. At power up the display screen will be greyed out until activated



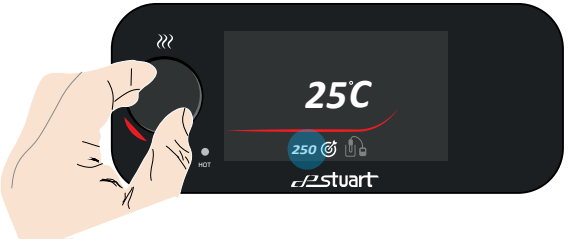
b. Click down on the heat control knob to activate the heat function, the red crescent and heat graphics will then illuminate in red



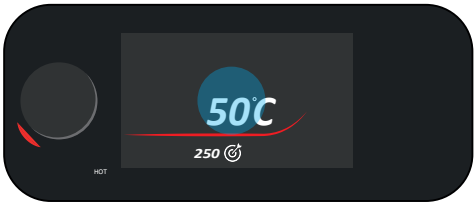
c. The minimum target set-point temperature is 25°C
The ceramic hotplate maximum temperature is 450°C and for the metal (aluminium) hotplate the maximum is 325°C



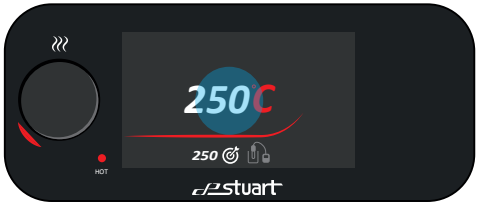
d. Turn the heat control knob to the target temperature required, after a few seconds the target temperature will flash twice to confirm it has been set (in this example 250°C)



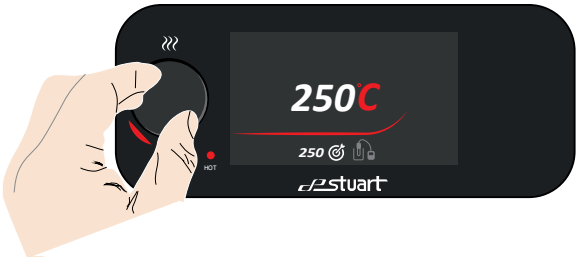
e. The real time temperature starts to increase to the target temperature



f. Once the target temperature has been reached the Celsius °C turns red



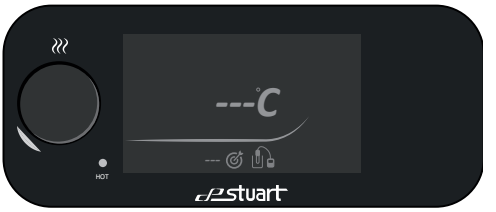
g. To turn off the heat function, click on the heat control knob



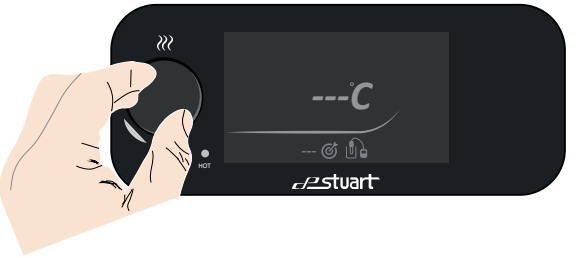
Adding a Hotplate Programme

Accessing the Programming Page

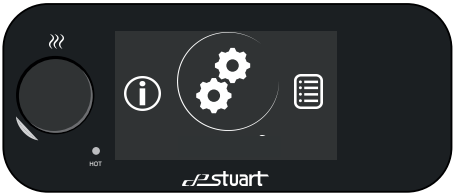
a. At power up the display screen will be greyed out

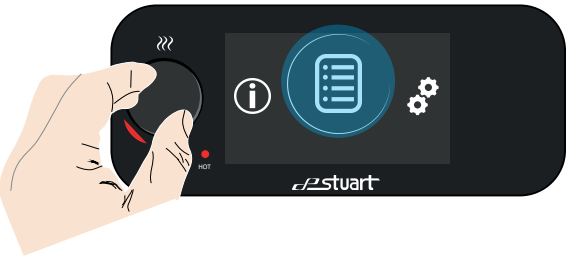


b. Click down on the heat control knob for 3 seconds to enter the menu carousel

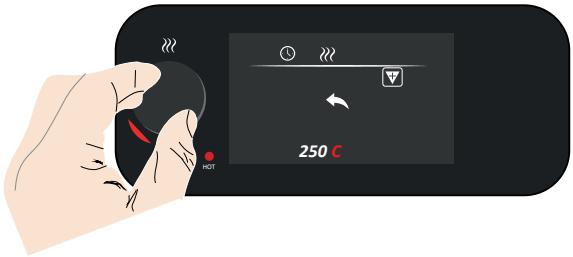


c. Check if the program icon is displayed centrally inside the circle. If not turn the heat knob until the programme icon is displayed in the circle

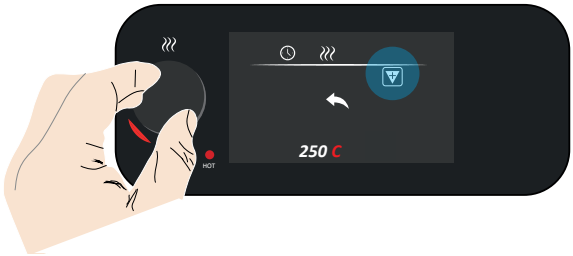




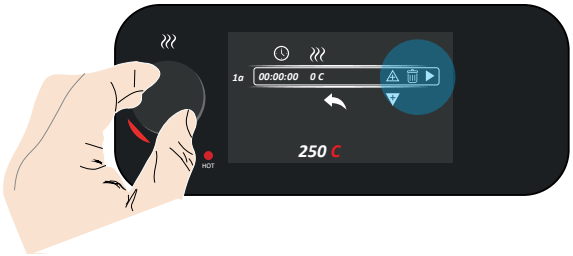
d. Click down on the heat control knob to enter programme mode



e. Scroll with the heater control knob to the add programme icon, click down once

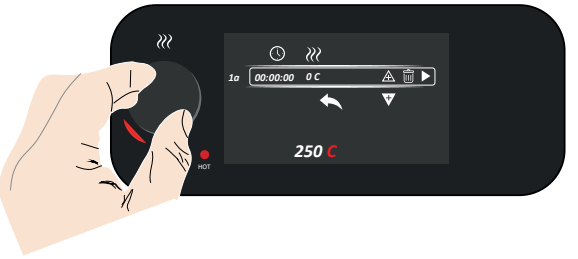


f. The time and heater temperature icons are set to zero and a selection box appears round the function options icons

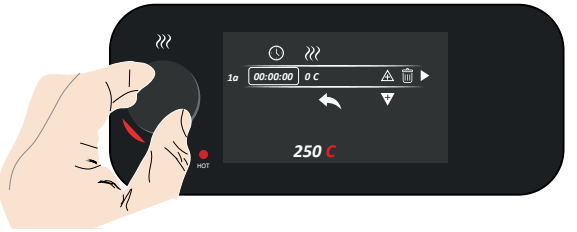


Single-Stage Programme

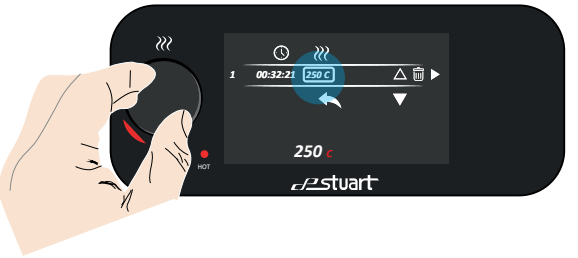
g. Once in the programme editing screen, click down the heat knob once more to enter function editing



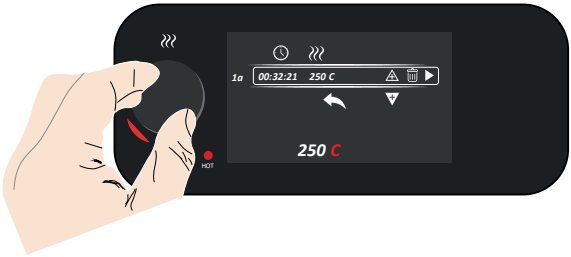
h. Scroll the heat control knob to select time. Click once to enter the time selection mode. Scoll the knob in select duration, then click once to input



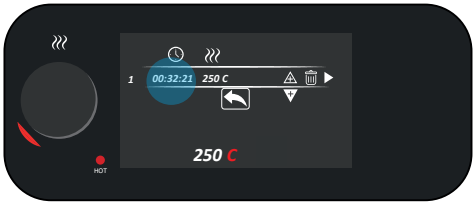
i. Scroll across to the temperature heating field. And repeat the steps above to enter and input the temperature



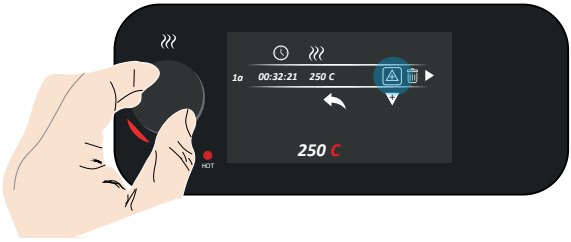
j. When you have finished programming, hold down the heat control knob for 2 seconds to go back to the function editing screen



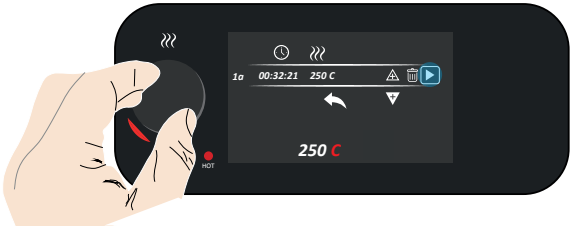
k. Scroll down to the back icon, click down to return to the programme screen



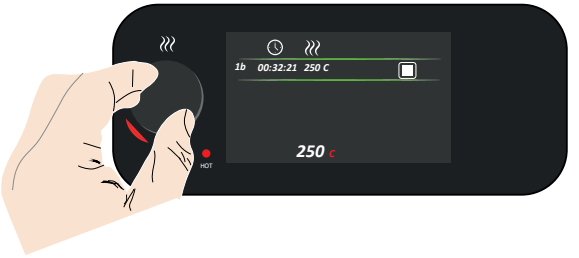
l. If you wish to add a programme above select the triangle function icon, navigate to the function options and select the add programme above icon



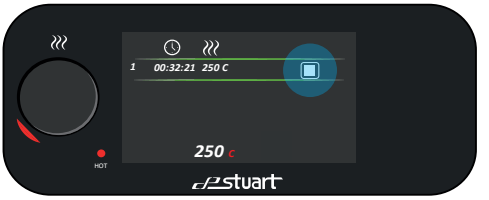
m. To play the programme, select the play function icon



n. The lines go green to indicate it is playing

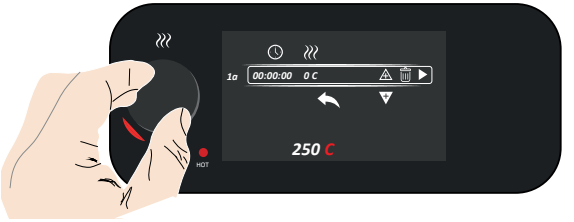


o. Selecting the stop icon stops the program and returns to the programme main screen

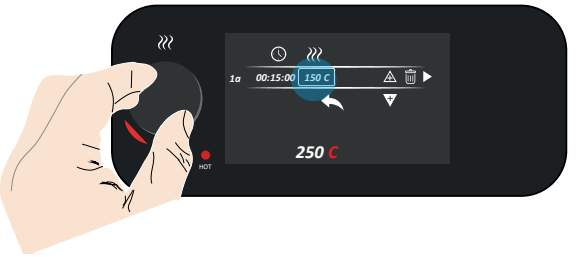


Multi stage Programme

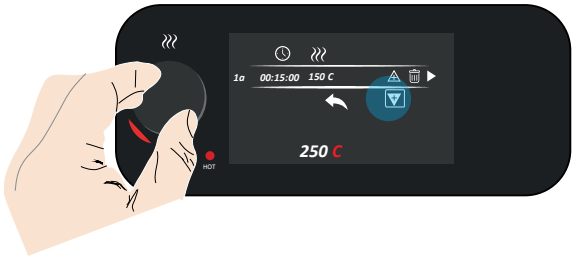
a. To set up a multitage programme set up a single stage programme as detailed on page 18
b. The display will display programme 1a list



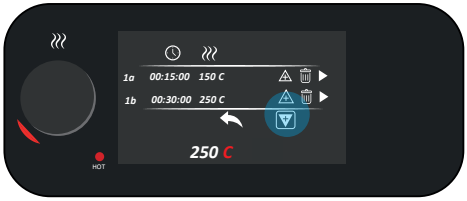
c. Input functions as detailed on page 18



d. To add an additional multi-stage program, scroll down to the add a new programme icon below

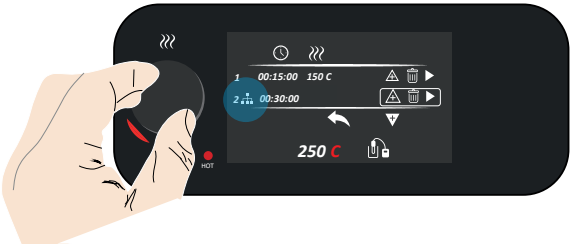


e. Enter the 1b time and temperature settings and repeat for additional multi-stage settings if required

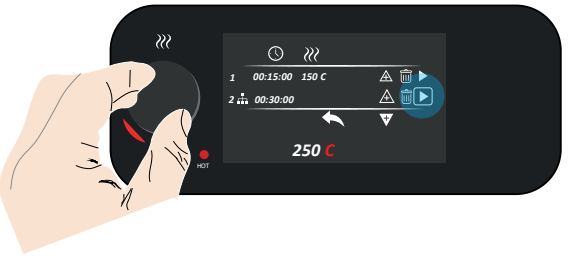


f. When you have finished programming, hold down the heat control knob for 2 seconds to go back to the programme screen

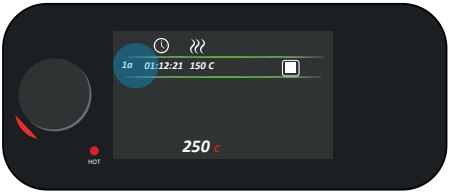
g. Scroll down to back icon and click to return to the main programming screen. A mulitstage icon will then be displayed to the right of the progamme number.



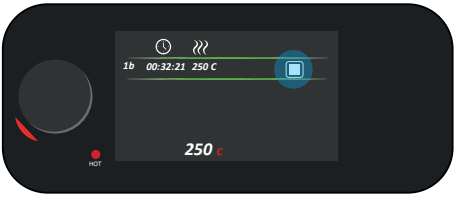
h. To play the multi-stage programme select play icon



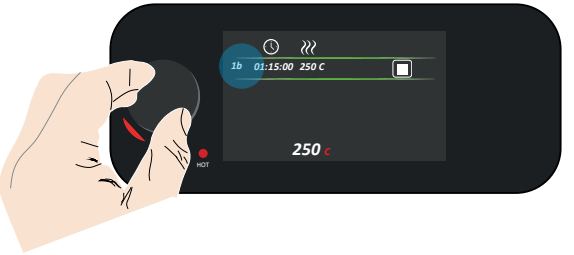
i. The display will show the first stage e.g. 1a of the multi stage programme and the lines will turn green to indicate it is playing



j. When the first stage is complete it will automatically run the next stage e.g. 1b



k. Selecting the stop icon, stops the programme and returns to the programme main screen

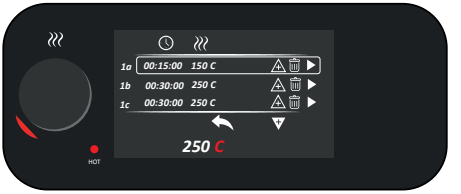


Run Selective Stages of the Multi-Stage Programme

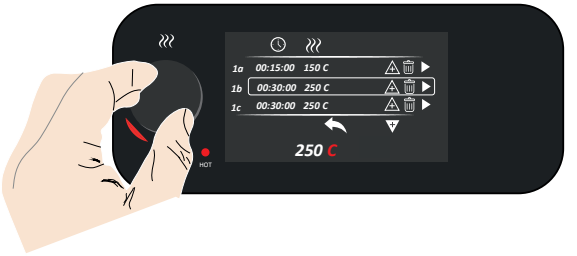
a. From the main programme screen, a selection box will appear round the functions of the first programme on the list

b. Scroll down the list to the multi stage programme (multi stage icon next to it) you wish to run, click on to select, then click edit

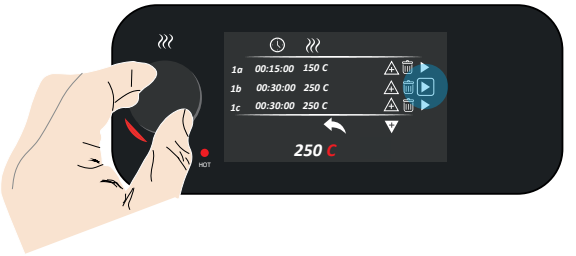
c. This will display the list of stages associated with the multi stage list (1a, 1b ...)with the program a box will be around the first stage of the programme list



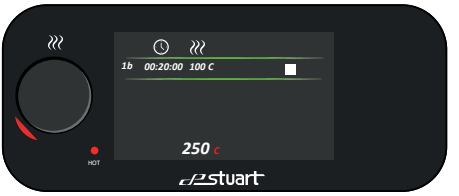
d. Scroll down the list of programmes and select the stage you want to run to the one you wish to run



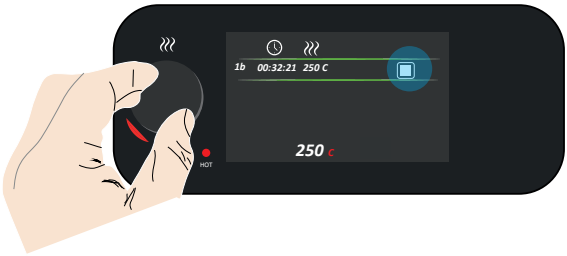
e. Click once to enter the functions options and select the play icon to run



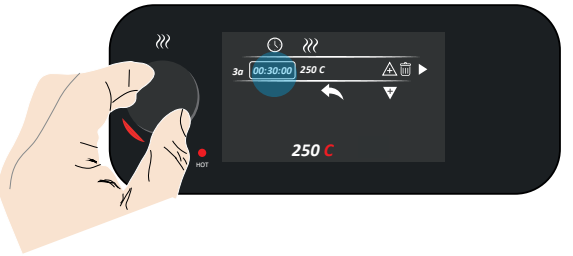
f. The lines then go green to indicate it is playing



g. Selecting the stop icon then stops the programme and returns to the programme main screen

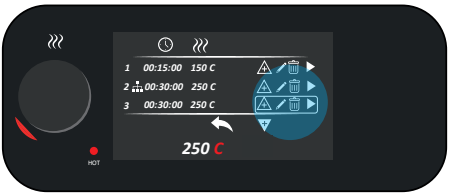


Editing an Existing Programme

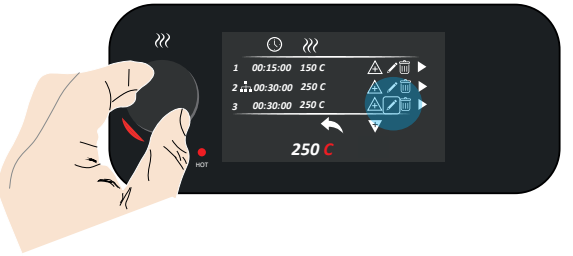


Single and Multi Stage Programme Editing

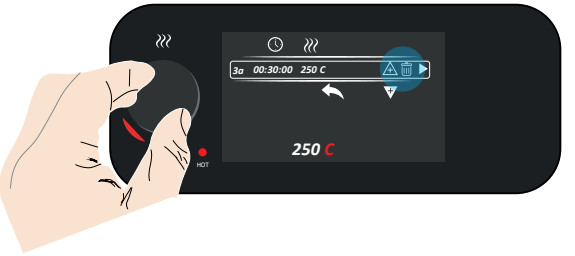
a. On the main programme screen, a selection box will appear round the functions of the first programme on the list



b. Scroll to the single stage programme you want to edit



c. Click on it and select the edit icon

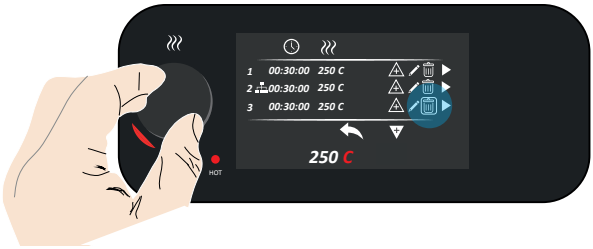


d. Scroll to the feild you want to edit and edit the funnction in the same was as you input, as detailed on page 18

Deleting an Existing Programme

Deleting a Single or Top Level Multistage Programme

a. From the main programme screen, a selection box will appear around the actions the program you want to delete, then click down to delete

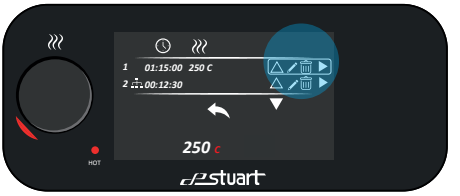


Delete a Single stage of a Multi stage programme

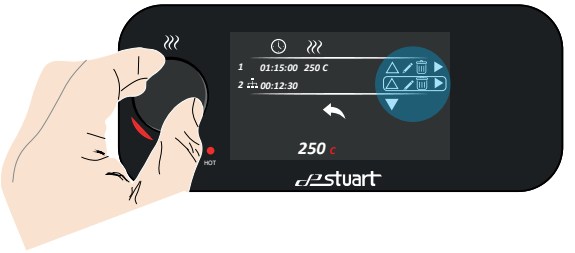
a. From the main program screen, navigate to the function screen of the programme you want to delete a stage from. Then click on the delete icon

Delete an Individual Stage Multi Stage Programme

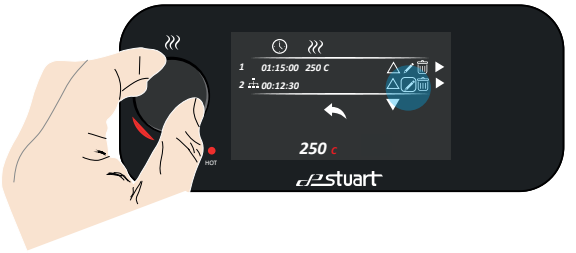
a. From the main programme screen, a selection box will appear round the functions of the first programme on the list



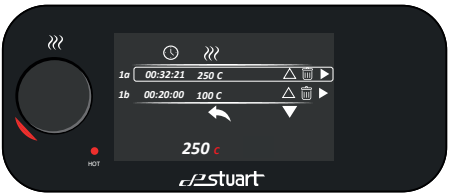
b. Scroll to the multi-stage stage programme you wish to delete the individual stage



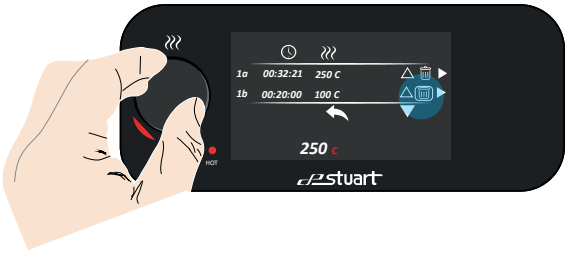
c. Click on it and select the edit icon



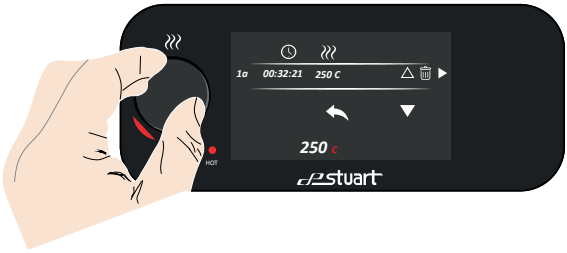
d. This will bring up the list of multi-programmes associated with the programme a box will be around the first stage of the program list



e. Scroll down the list of programmes to the one you wish to delete, click once to select the delete icon



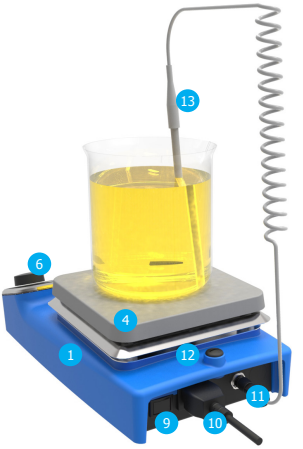
f. Click again to delete the individual stage of the multi stage programme (in this example 1b)



Premium Hotplate Stirrer

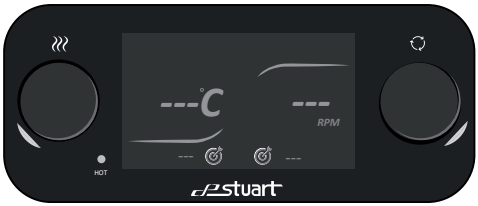
SP152, SP152/120, CP152, CP152/120

1. Top casting (blue, white, black, avocado, red, tangerine, violet and pink)
2. Control interface
3. Ceramic top plate
4. Aluminium top plate
5. Heating control dial
6. Stirrer control dial
7. TFT - LCD Digital display
8. Hot LED
9. Mains on/off switch
10. IEC power socket
11. 2-way probe socket
12. Retort rod fitting
13. PTFE probe
14. Magnetic flea

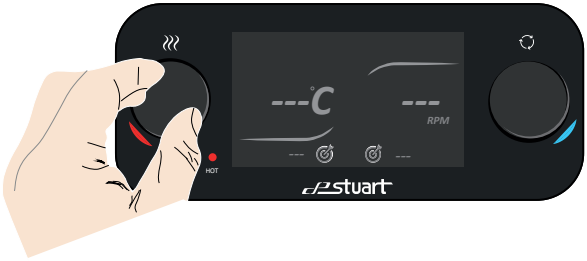


Adjusting the Display Brightness

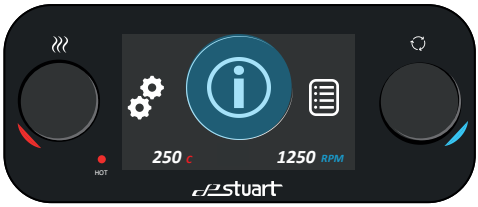
a. At power up the display screen will be greyed out

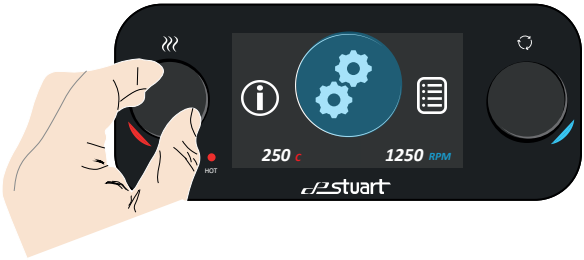


b. Click down on heat or stir control knob for 1.5 seconds to enter the menu carousel

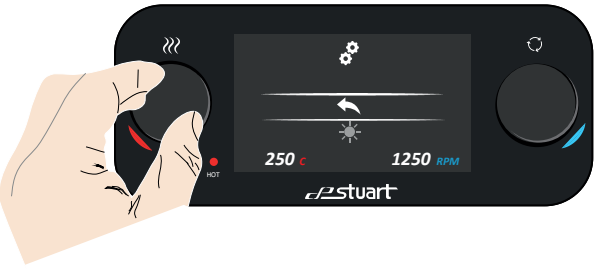


c. Check if the set-up icon is displayed centrally inside the circle. If not turn the heat or stir knob until the set-up icon is displayed in the circle

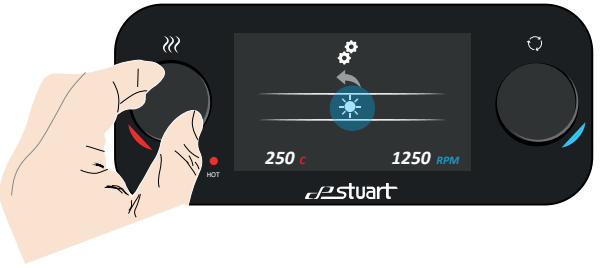




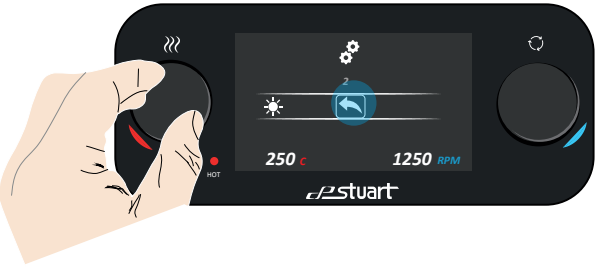
d. Click down on the heat control knob to enter set-up mode



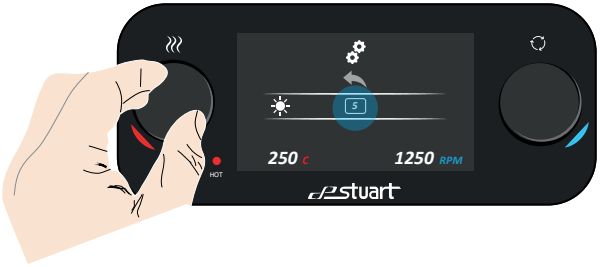
e. Using the heat control knob scroll through the menu to select the brightness icon option



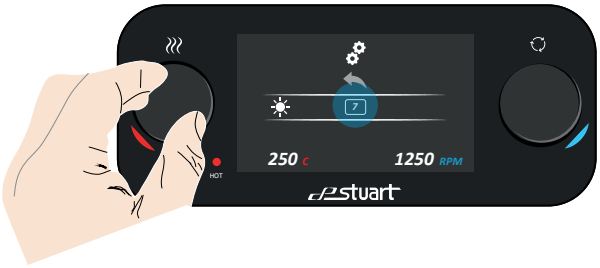
f. Click down on the heat control knob to enter brightness set-up. The default setting is 5, with a scale of 1 to 10 with the brightest level being level 10 and the darkest level 1



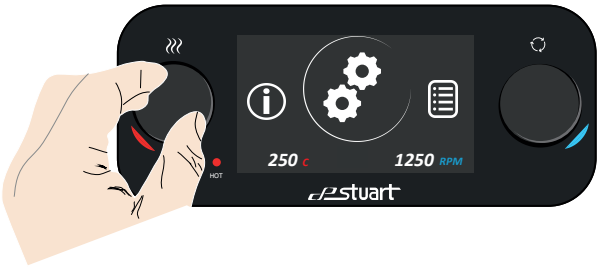
g. Click once to enter brightness adjustment (box appears around the number)



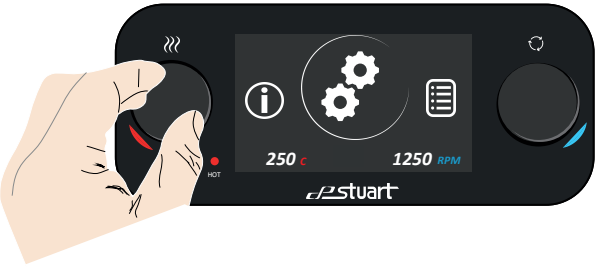
h. Scroll through the brightness level options and select the desired brightness level, click once to select this level (in this example Level 7)



i. The unit will then return to the settings main screen

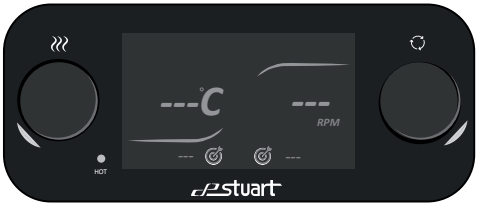


j. To return to the main screen hold down the heat control knob for 3 seconds

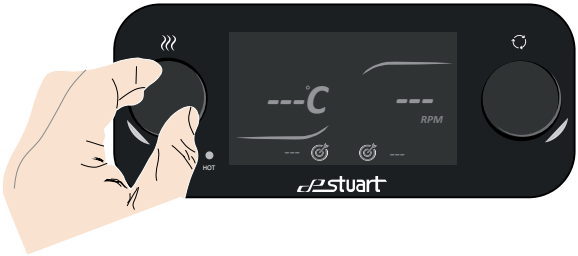


Finding out Information About the Unit

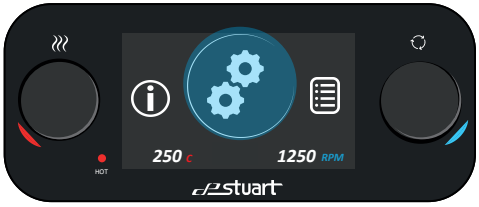
a. After power up the display will be greyed out

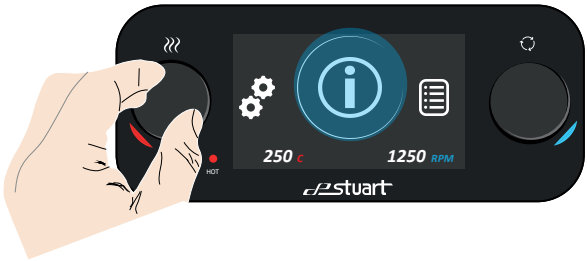


b. Click down on the heat control knob for 3 seconds to enter the menu carousel

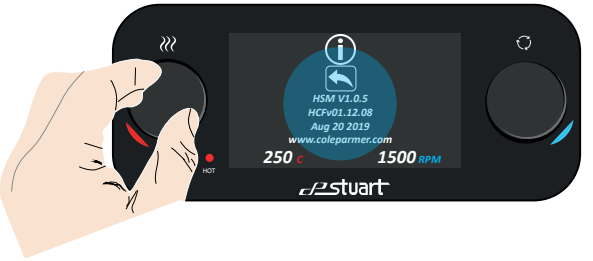


c. Check if the about icon is displayed centrally inside the circle. If not turn the heat knob until the about icon is displayed in the circle

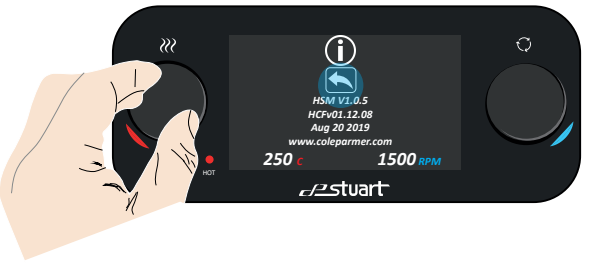


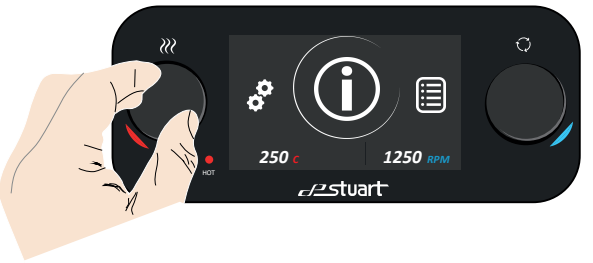


d. Click down on the heat control knob to enter about mode. The screen will display the software version and Cole-Parmer Ltd details

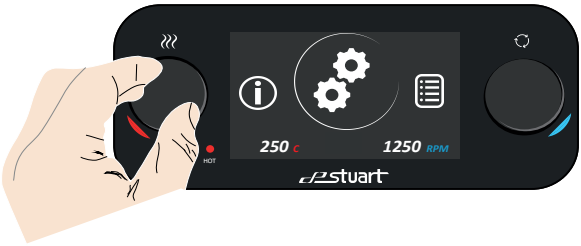


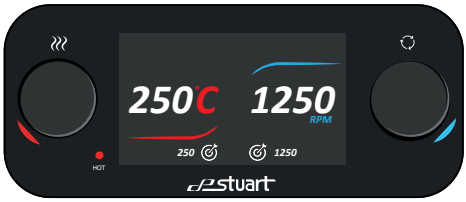
e. Scroll to the back arrow icon and click to return to the menu carousel





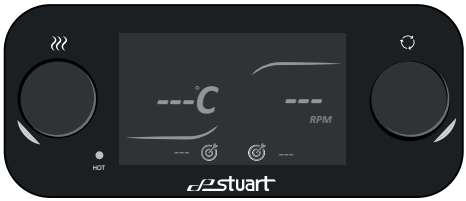
f. To return to the main screen hold down the heat control knob for 3 second



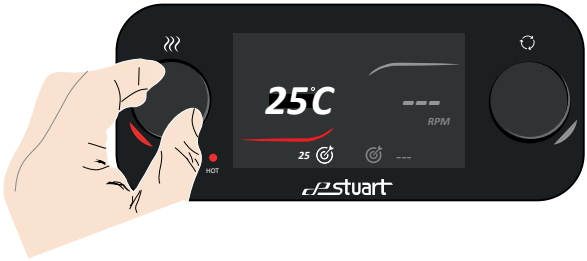


Setting the Heater Temperature

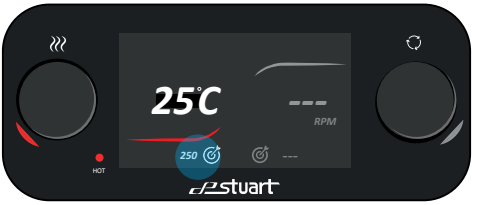
a. At power up the display screen will be greyed out until activated



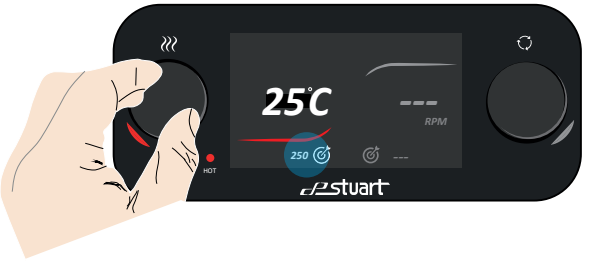
b. Click down on the heat control knob to activate the heat function, the red crescent and hockey stick line will illuminate to red and the ambient temperature



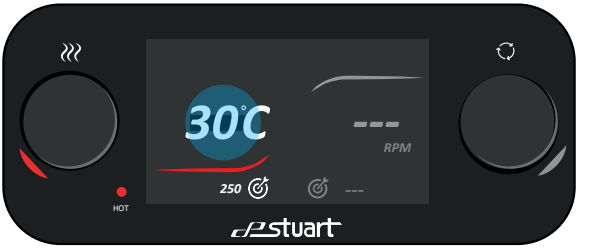
c. The minimum target set-point temperature is 25°C and the temperature. The ceramic hotplate maximum temperature is 450°C and for the metal (aluminium) hotplate the maximum is 325°C



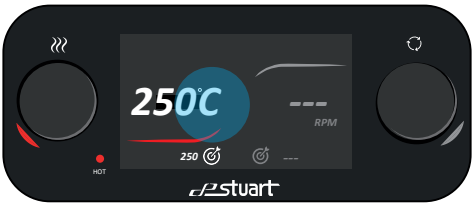
d. Turn the heat control knob to the target temperature required, after a few seconds the target temperature will flash twice to confirm it has been set (in this example 250°C)



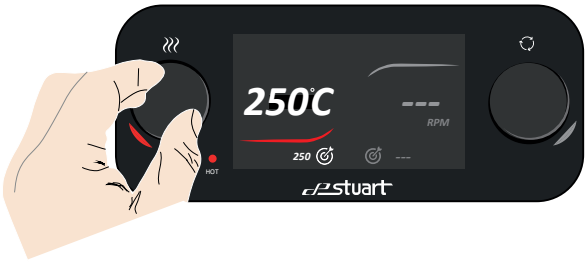
e. The real time temperature starts to increase to the target temperature.

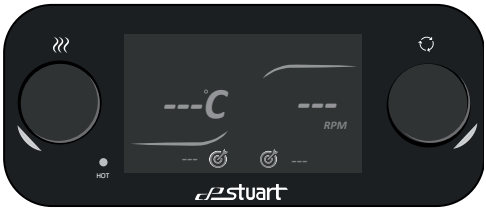


f. Once the target temperature has been reached the Celsius °C turns red



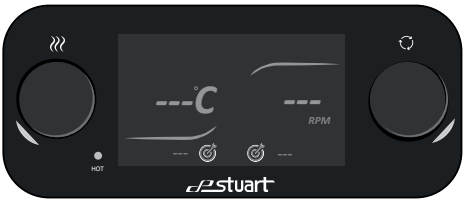
g. To turn off the heat function, click on the heat control knob



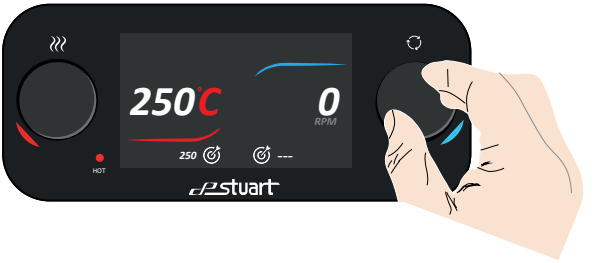


Setting the Stirrer Speed

a. At power up the display screen will be greyed out until activated

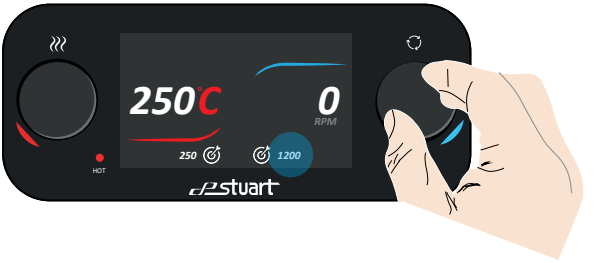


b. Click down on the stirrer control knob to activate the stirring function, the crescent and hockey stick line will illuminate to blue

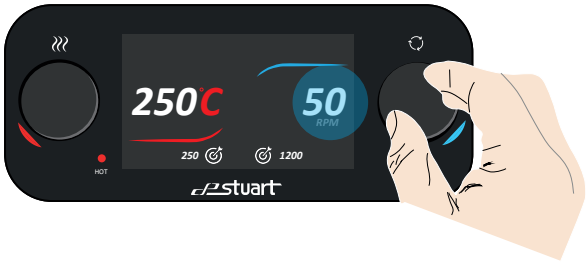


c. The minimum stirrer speed that can be set is 50rpm, for the ceramic hotplates the maximum stirrer speed is 1250rpm and for the metal (aluminium) hotplates the maximum stirrer speed is 1400rpm

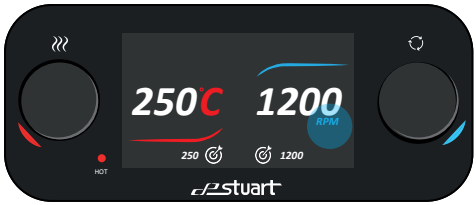
d. Turn the stirrer control knob to the target speed required, after a few seconds the target speed will flash twice to confirm it has been set (in this example 1200rpm)



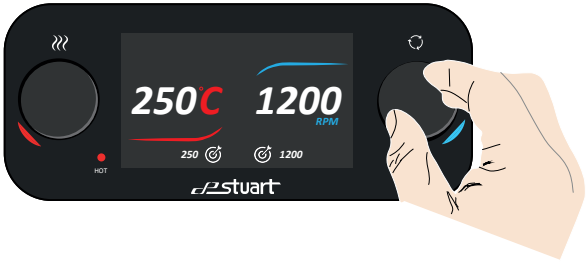
e. The real time speed starts to increase to the target temperature



f. Once the target temperature has been reached the RPM turns blue



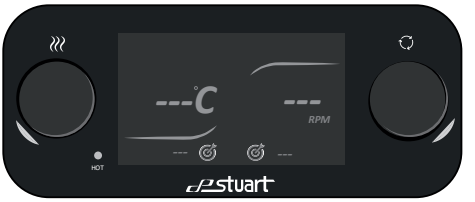
g. To turn off the stirring function, click on the stirrer control knob



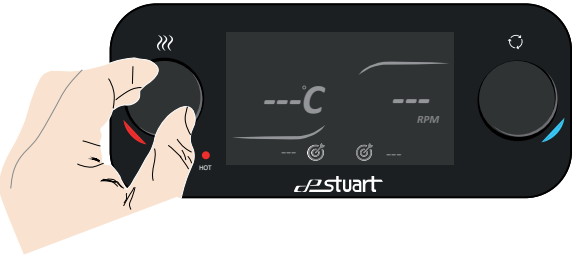
Adding a Hotplate Stirrer Programme

Accessing the Programming Page

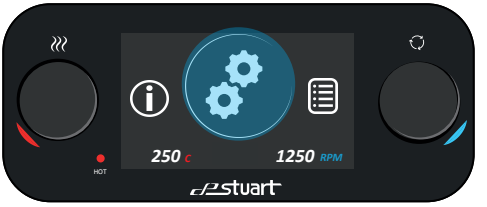
a. At power up the display screen will be greyed out

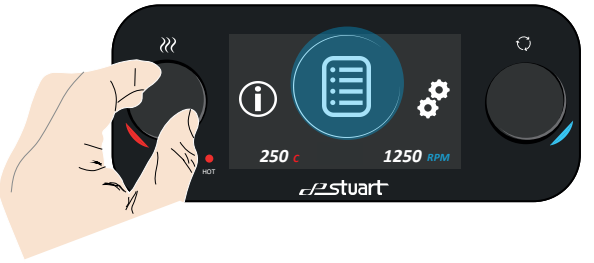


b. Click down on the heat control knob for 3 seconds to enter the menu carousel

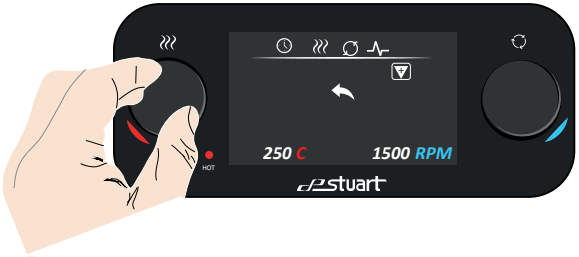


c. Check if the programme icon is displayed centrally inside the circle. If not turn the heat knob until the programme icon is displayed in the circle

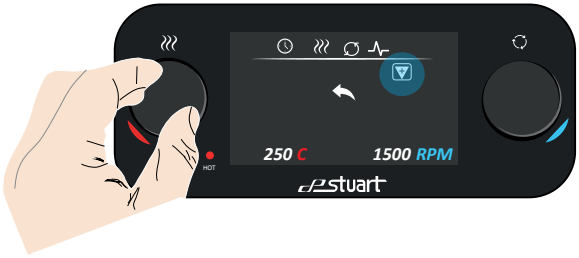




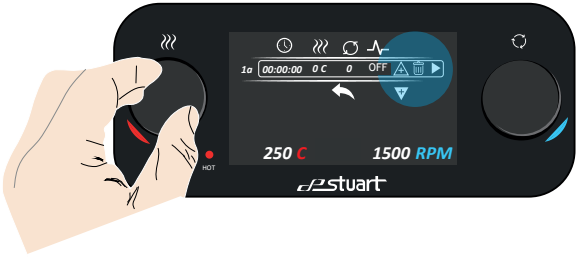
d. Click down on the heat control knob to enter programme mode



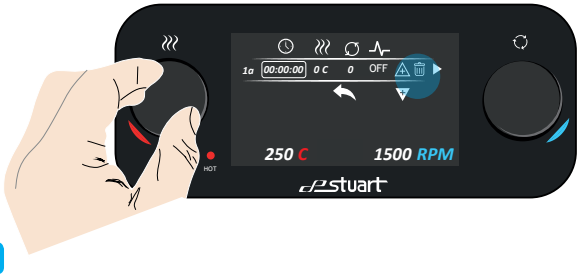
e. Click on the heater control knob to add a new programme, a box appears around the + icon option



f. The time and heater temperature icons are set to zero and a selection box appears round the function options icons

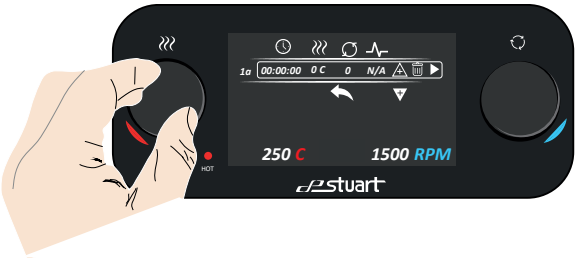


g. Click once to enter the functions options and scroll to edit programme option

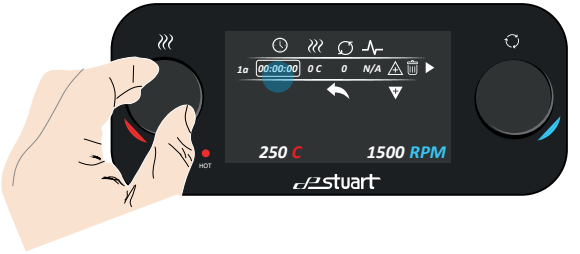


Single Stage Program

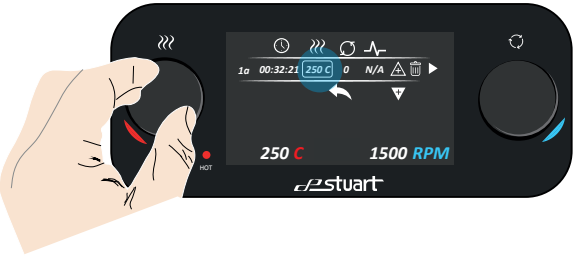
a. . Once in the programme editing screen, click down the heat knob once more to enter function editing



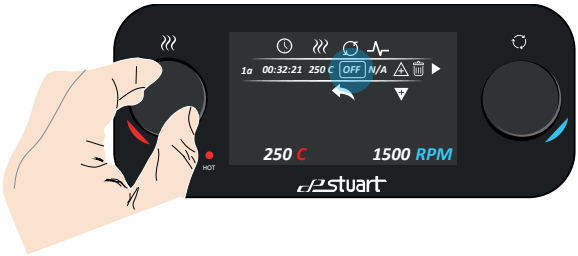
b. Scroll the heat control knob to select time. Click once to enter the time selection mode. Scoll the knob in select duration, then click once to input



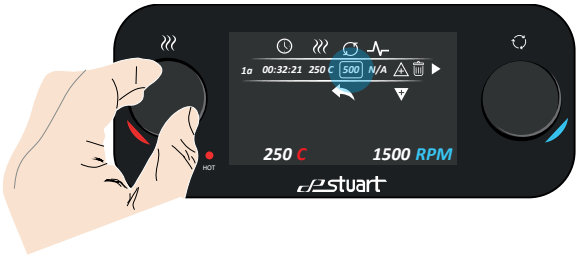
c. Scroll across to the temperature heating field. And repeat the steps above to enter and input the temperature



d. The third option is stirrer speed, the minimum stirrer speed is 50 rpm.

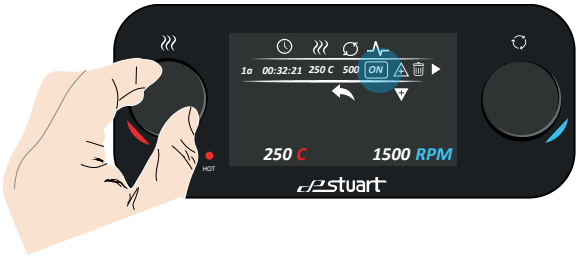


e. Scroll the heat knob to the stirrer option and increase the stirrer speed above 50 rpm

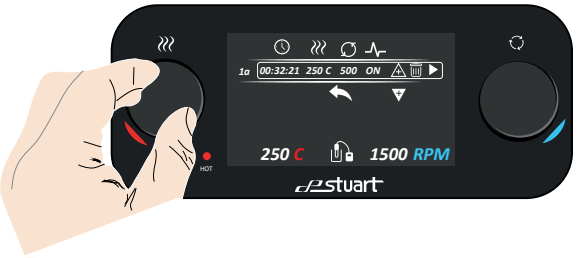


f. The fourth option is the pulse option, this pulses the stir function on and off(30 Seconds on , 10 seconds on and repeated till end of the cycle)

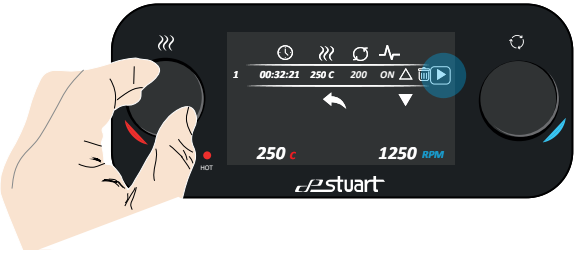
g. Scroll the heat knob to the pulse option and select ON



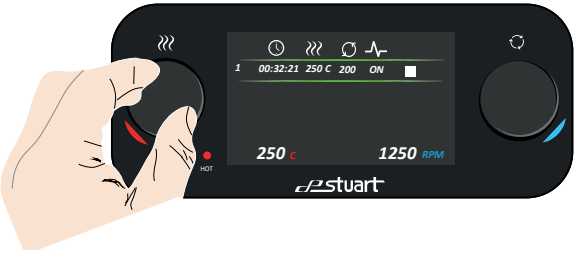
h. When you have finished programming, hold down the heat control knob for 2 seconds to go back to the program screen



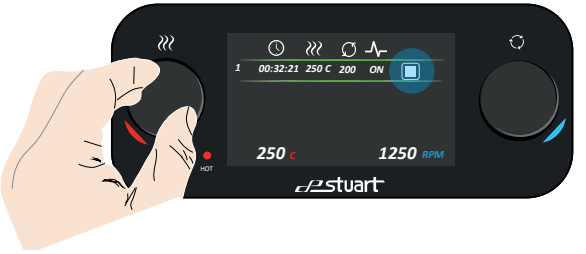
i. To play the programme, select the play function icon



j. The lines go green to indicate it is playing



k. Selecting the stop icon stops the program and returns to the program main screen



Multi Stage Programme

a. See pages 20 - 27

Run Selective Stages of the Multi-Stage Programme

a. See page 23

Editing an Existing Programme

Single & Multi Stage Programme Editing

a. See page 26

Deleting and Existing Programme

Deleting a Single Programme

b. See page 27

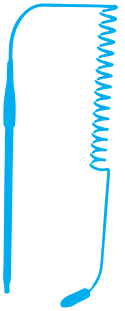
Delete a top level multi Stage Programme

c. See page 27

Delete an Individual Stage Multi Stage Programme

a. See page 28

External PTFE Probe

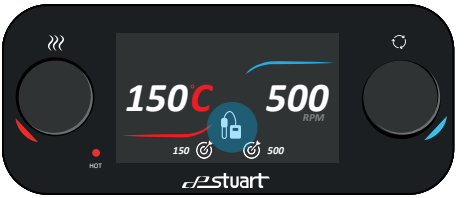


A PTFE probe is supplied for those applications requiring a chemically resistant probe.

For optimum temperature control, ensure the end of the sensing probe is immersed at least 20mm deep into the medium being controlled

The PTFE probe can operate as a precise temperature controller from 20°C to 200°C

When the probe is connected, the probe connection icon appears on the screen and remains until disconnected. If the probe is not in the sample an error (Error 8 - Probe Out Error) will appear on the screen. You need to turn the unit using a hard reset



Troubleshooting

Once an error code is detected, the screen above appears, the hockey stick lines change to white and fade in and out around the error code in the centre of the screen (in this example error 1 is displayed) and a warning triangle

The majority of errors are fault conditions and the units should stop heating and stirring on detection of an error. Once an error is displayed the only way out is for a hard reset

Error Code	Fault Condition
1	Probe Range Error
2	Box Lost Error
3	Hotplate Temperature Error
4	Hotplate Ambient Error
6	Communication Delay
8	Probe Out Error
9	Comms Error Display Not Responding
10	Display Has fatal Error Flags Set
11	Probe Failed Open Circuit
12	Probe Failed Short Circuit
13	Probe Over 200°C Error
17	Comms Delay, HCF Not Responding
18	Comms Error, HCF Not Responding
19	PCB Mismatch HCF & Display Configured Differently

Product Repair

Please contact Cole-Parmer or your local distributor for repair or maintenance issues

Product Maintenance

Disconnect power to the product by unplugging the power cord before performing any maintenance or inspection

General

Inspect the power cord regularly and replace if damaged. Use only replacement power cords available from Cole-Parmer. The unit is fitted with a hot condition IEC socket for fitting to the mains supply (always use correct power cord)

Fuse Replacement

The dual mains fuses are located inside the unit and are not user replaceable parts

General Cleaning

- Ensure the top plate is cool and the unit is disconnected from the mains electricity supply
- It is important to keep the product clean and dry
- Remove any exterior liquid spills promptly
- Clean exterior surfaces with a damp cloth and a mild detergent solution
- Do not re-connect to power until all cleaned surfaces are dry
- If liquid gets inside the product, immediately disconnect power to

the product and discontinue use. Contact Cole-Parmer for additional instructions regarding interior spills

Ceramic Top Plate Cleaning

- The ceramic top is highly resistant to chemical attack
- Ensure the top plate is cool and disconnect from the mains electricity
- A damp cloth will normally remove most types of contamination. For more difficult stains a domestic cream cleanser is recommended
- During cleaning and general operation take care not to scratch the surface as this could cause thermal breakage
- A ceramic top which is scratched, chipped, chemically etched or otherwise damaged must not be used

Optional Accessories

Full Hotplate Range		
Part Number	Description	Quantity
SR1	Retort rod, 600mm x 12mm diameter	1
SCT1/1	Probe Holder	

Metal (aluminium) Hotplates and Stirrers Only

A complete range of modular heating blocks for heating round bottom flasks is available for use with metal top hotplates.

See the Stuart website for further information

Footnote:
Modular heating blocks are not suitable for use with ceramic top hotplates

Replacement Parts

Only spare parts supplied by Cole-Parmer or its agent should be used. Fitting of non-approved parts may affect the performance of the safety features of the product

Replacement Parts		
Part Number	Description	Quantity
US152021	UK Mains Cord Moulded Plug (Hot)	1
US152023	EURO Mains Cord Moulded Plug (Hot)	1
BSSEP013	US Mains Cord Moulded Plug (Hot)	1

Notes

Warranty Statement

Cole-Parmer warrants this equipment to be free from defects in material and workmanship when used under normal laboratory conditions for a period of 3 years. This warranty begins from the date of purchase by the end user

In the event of a justified claim, Cole-Parmer will replace any defective component or replace the unit free of charge

This warranty does NOT apply if:

- A ceramic top has broken due to mechanical impact, scratching, chipping or chemical etching
- Any repair has been made or attempted other than by Cole-Parmer or its agents
- Minor coating chips and scratches appear from what is deemed normal use
- Damage caused by fire, accident, misuse, neglect, incorrect adjustment or repair, damage caused by installation, adaptation, modification or fitting non-approved parts

Your Purchase Record

Cole-Parmer recommends that you record the details of your purchase in the spaces below for your future reference

Model Number _____ *Serial Number* _____

Date Purchased ___ / ____/ _____

Purchased From _____

Purchase Reference Number _____

Customer Support

For help and support in using this product please contact Customer Services at the following address

Cole-Parmer®

Cole-Parmer
Beacon Road
Stone
Staffordshire
ST15 0SA
United Kingdom

Tel.: +44(0)1785 812121
Email: cpinfo@coleparmer.com

Glossary of Icons

Heating Target icon - turns white when heating turned on and displays the target temperature will flash twice to show selected. The minimum set-point is 25°C

Stirrer Target Icon - turns white when stirrer turned on and display stirrer temperature will flash twice minimum setting 50 rpm

Heater Hockey Stick Line - turns red when the heating mode is selected and working correctly

Stirrer Hockey Stick Line - turns blue when the stirrer mode is selected and working correctly

Degrees Centigrade - once the target temperature is reached the degrees C turns red

RPM - once the target speed is reached the RPM text turns blue

Probe Icon - when the probe icon is connected the probe connected icon appears and will stay solid until disconnected where the icon will fade out

Warning Icon - When an error is detected the warning triangle will be displayed

Error Code - when an error is detected an error code is displayed. The graphics change to white with fade in and out

Hot LED - This LED will flash when the top plate becomes too hot to touch and while the temperature is above 50°C for up to 30 minutes, even if the unit is disconnected from the electricity supply

Setup Icon - when selected in the menu carousel, you can set the brightness level of the display

Program Icon - when selected in the menu carousel, you can program either a single stage or multi stage program where you can enter the time, heater temperature, stirrer speed and pulse options depending on the model type

About Icon - when selected in the menu carousel, it will display the software program installed on the unit and Cole-Parmer contact details

Illumination Icon - sets the brightness of the display, with 1 being the darkest and 10 the brightest. The optimal setting is 5 mid range setting

Back Arrow Icon - allows you to step back to the menu carousel or back to the programming main screen

Multi Stage Icon - when selected during programming the multi stage option is enabled

Time Duration Icon - during programming, you can set the time duration of the run

Heat Temperature Icon - during programming, you can set the heater temperature of the run

Stirrer Speed Icon - during programming, you can set the stirrer speed, the minimum speed is 50 rpm. If set to " ---" the speed is off. If you have got the speed set to off and then enable the pulse, the speed automatically changes to 50 rpm

Pulse Icon - during programming if the pulse is set to ON, the stirrer is on for 30 seconds and off for 10 seconds. If you have the speed set to 200rpm and the pulse ON the motor will be on at 200rpm for 30 seconds and)rpm for 10 seconds

Add Program Icon - allows you to add a new program to the unit

Up Icon - during programming the function keys will be displayed, this icon will add a new program above the existing program

Edit Icon - during programming the function keys will be displayed, this icon allows you to edit the existing program selected

Delete Icon - during programming the function keys will be displayed, this icon allows you to delete the existing program selected

Play Icon - during programming the function keys will be displayed, this icon allows you to play the program selected

Down Icon - during programming the down icon will be displayed, this icon will add a new program below the existing program

Green Lines - when a program is running the white lines turn green to show the program is running

Stop Icon - when the program is running the stop icon is displayed, when selected is stops the program running and returns to the man programming screen

Technical Specifications

Hotplate Stirrers	SP152 & /120	CP152 & /120
Plate material	Coated aluminium/ silicon	Glass ceramic
Plate dimensions, mm	150 x 150	150 x 150
Heated area, mm	150 x 150	120 x 120
Heater control	Digital	Digital
Heater power, W	700	500
Max.plate temp, °C	325	450
Stirrer speed, rpm	50 - 1400	50 - 1250
Max. stirring capacity, L*	15	15
Dimensions (wxdxh), mm	182 x 300 x 90	182 x 300 x 85
Net weight, kg	2.73	2.68
Power, W	750	550
Electrical supply	120V, 60Hz, 230V, 50Hz	120V, 60Hz, 230V, 50Hz

Hotplates	SP150 & /120
Plate material	Coated aluminium/ silicon
Plate dimensions, mm	150 x 150
Heated area, mm	150 x 150
Heater control	Digital
Heater power, W	700
Max.plate temp, OC	325
Max. stirring capacity, L*	15
Dimensions (wxdxh), mm	182 x 300 x 90
Net weight, kg	2.31
Power, W	700
Electrical supply	120V, 60Hz, 230V, 50Hz

CE Declaration of Conformity

Available for viewing on the Stuart website

Product Disposal

The 'crossed wheelie bin' symbol present on the product indicates that the product was planned for use in a country complying with the Waste Electrical and Electronic Equipment (WEEE) EU directive 2012/19/EU. This symbol indicates that the equipment must not be discarded as domestic waste. This product should only be dismantled for recycling by an authorised recycling company. It is the product user's responsibility to decontaminate waste equipment from biological, chemical and/or radiological hazards prior to disposal

Packaging material has been selected such that it may be sorted for recycling

If the equipment has been exposed to contamination, appropriate decontamination certificate is required. If this product or any part of the unit becomes damaged or requires servicing, the product should be returned with a decontamination certificate

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