

GSX, GSX Plus & GSX Deluxe Electric shower range

Installation guide



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Important information

THIS INSTALLATION AND USER GUIDE IS DESIGNED TO ENSURE THE SAFETY OF THE INSTALLER AND USER AND THE OPERATION/RELIABILITY OF THE PRODUCT. FAILURE TO OBSERVE THESE MAY CAUSE A HAZARD, DAMAGE THE PRODUCT AND INVALIDATE YOUR GUARANTEE.

Safety information

This product must be installed by a competent person in accordance with all relevant current water supply regulations.

The electrical installation should be carried out by a qualified person in accordance with IEE (Institute of Electrical Engineers) wiring regulations (BS 7671) and certified to current building regulations. With reference to building regulation Part P, any new installation or replacement product installation which is not identical to the product being replaced, the cable sizes, circuit protection devices, earth bonding and all other requirements of the building regulation must be assessed by a (registered) qualified electrician and installed to the site conditions (see table in electrical rating).

THIS APPLIANCE IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES OR LACK OF EXPERIENCE AND KNOWLEDGE UNLESS THEY HAVE BEEN GIVEN INITIAL SUPERVISION OR INSTRUCTION CONCERNING THE USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY. CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.

THIS PRODUCT IS SUITABLE FOR DOMESTIC USE ONLY

Pipework connections

This shower unit is designed for use with 15mm British Standard pipe and must be fitted with a copper olive. This product is suitable for top, bottom or rear entry pipe work and cable connections. Supply lines should be flushed clear of any debris prior to installation of the unit

Plastic pipe may be used (with appropriate inserts) if certified by the plastic pipe manufacturer for use with compression fittings. The copper olive provided must be used.

WARNING: PLASTIC PIPE INSERTS CAN BE VERY RESTRICTIVE. WHERE USED THE PRESSURE / FLOW REQUIREMENTS DETAILED IN THE PRESSURES SECTION OVERLEAF MUST BE MET.

Pipe runs in the loft or behind radiators should be avoided.

Isolating valves

A suitable full bore isolation valve must be fitted to the incoming supply in accordance with the current water supply regulations and our terms of warranty. The isolation valve must be sited in an accessible location for service and maintenance purposes.

Siting

The unit must be mounted on a flat, vertical finished wall with the hose pointing downwards. Any distortion of the back plate may result in the unit not working

DO NOT tile up to or use sealants around the unit. The shower is spaced off the wall by integral pillars to allow air circulation around the unit.

The casing must not be sited where it is subject to continuous spray from the shower head.

The GSX Deluxe variant unit should be sited in a position where the LCD display is easily visible by the users.

The unit must not be sited where it is likely to freeze.

The rail system must be sited in a position where the hose when connected to the shower unit is not stretched or kinked.

WARNING: DO NOT SWITCH THE SHOWER ON IF THERE IS A POSSIBILITY THAT THE SHOWER COULD BE FROZEN. IF YOU HAVE SWITCHED THE SHOWER ON, SWITCH OFF IMMEDIATELY (Please refer to the troubleshooting guide page 17).

Pressures

Check that the supplied dynamic (running) water pressure to the electric shower is adequate.

The required supplied dynamic (running) pressure is:-

Maximum 1.0MPa (10 Bar)

Minimum 0.07MPa (0.7 Bar) at a flow rate of 8 litres per minute.

Where pressures are likely to exceed 1.0MPa (10 bar), a pressure reducing valve must be fitted to the incoming mains supply. A setting of 0.3MPa (3 bar) is recommended. It should be noted that daytime pressures approaching 8 bar can rise above the stated maximum.

The use of other services connected to the same water supply as the shower unit may cause the water pressure to drop below the minimum required. This should therefore be taken into consideration. The minimum pressure/flow rate provided by your water supplier may be below the requirements of this product. Contact your water provider for more details. Note: The running pressure at your shower can be lower than this due to pressure losses in the internal pipe work in your home.

Note: Models of electric showers can differ in performance; if your previous electric shower had a lower output flow rate, then this may have produced a higher dynamic pressure at the shower head.

Flushing

Some modern fluxes can be extremely corrosive and, if left in contact, will attack the working parts of this unit. All soldering must be completed and the pipe work thoroughly flushed out in accordance with current Water Supply Regulations prior to connection of the product.

Pressure relief device (PRD)

To meet European standards, the shower unit features an integral pressure relief device (PRD). The PRD provides a degree of shower unit protection should an excessive build up of pressure occur within the shower.

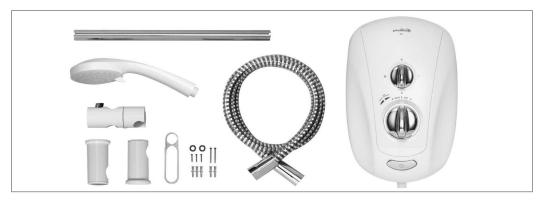
DO NOT operate the shower with a damaged or kinked hose or blocked shower head, as this can cause excessive water temperature and/or the PRD to operate. Failure to follow this instruction will invalidate the product guarantee.

The outlet must not be connected to any tap or fitting, including water saving handsets and flow restrictors, other than those specified as the shower will only function correctly with the hose and handset provided (see showerhead installation instructions from page 12). The use of alternative shower heads and/or hoses can cause excessive, potentially scalding, water temperature and/or the PRD to operate and will invalidate the product guarantee.

Please fully commission the shower prior to use following the instructions on page 14. Failure to do this could cause the PRD to operate and will invalidate the guarantee.

The shower must be sited over a bath or shower tray as in the event of the PRD operating water will drain from the bottom of the shower unit.

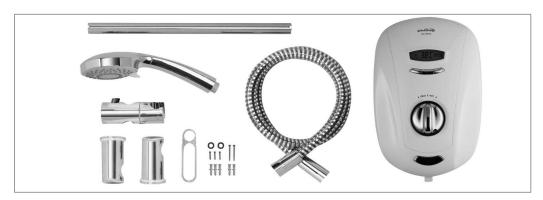
Components



GSX



GSX Plus



GSX Deluxe

Pipework Installation instructions

In addition to the guide that follows it is essential that the written instructions on pages 4 and 5 are read and understood, and that you have all the necessary components before commencing installation. Failure to install the product in accordance with these instructions may adversely affect the warranty terms and conditions. Do not undertake any part of this installation unless you are qualified to do so. Prior to starting, ensure you are familiar with the necessary plumbing and electrical regulations and legislation required to install the product correctly and safely.

Gainsborough Bathroom Products Limited reserves the right to revoke the terms of the warranty should access to the service connections be denied by the use of solid setting infill material.

Remove the warning label and outlet bung from the unit.

Set the temperature dial to the full cold position to ensure correct alignment during reassembly.

Ensure the internal flow/temperature control mechanism is not moved during assembly once the cover has been removed.

Remove the fixing screws and lift the casing up and away from the engine assembly. Carefully detach the connector and pull the casing





Tape the template provided onto the finished wall surface in the desired position and mark the three fixing points. Drill and prepare the fixing holes using the fixings provided if suitable.

Remove the service tunnel and set aside.



If using top or bottom entry pipe work connection, fix the unit to the wall using the screws provided, if suitable.

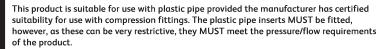
Flush through the water supply pipe allowing it to discharge safely to waste.

Some modern fluxes can be extremely corrosive and, if left in contact will attack the working parts of this unit. All soldering must be completed and pipe work thoroughly flushed out in accordance with current Water Supply Regulations prior to connection of the product

Remove the inlet and outlet blanking caps and rotate the inlet elbow connector for either top, bottom or rear entry.



Pipe work connection must be made using a 15mm compression nut (not supplied). A copper olive is supplied and must be fitted onto the pipe prior to the nut being connected to the brass inlet connector.





If using rear entry pipework, for ease of installation and maintenance, pipework connection using an elbow is recommended as shown.





For rear fed installations, fit the unit to the wall using the fixings provided, if suitable.

11 Turn on the water supply to the shower unit and check for leaks up stream of the shower unit. If all is sound turn off the water supply to the shower unit.

If required, ensure the water pressure to the shower unit is within the minimum and maximum requirements by following the pressure testing procedure on page 17.

Electrical installation

BEFORE ANY ELECTRICAL CONNECTION IS ATTEMPTED, THE ELECTRICITY SUPPLY MUST BE TURNED OFF AT THE MAINS SWITCH. FAILURE TO DO SO COULD RESULT IN ELECTROCUTION.

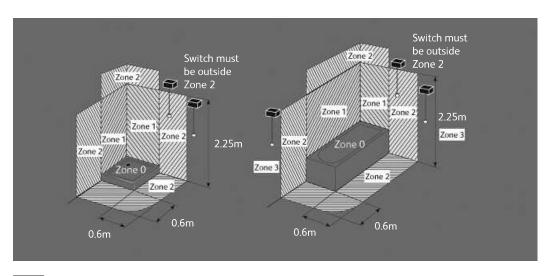
The electrical installation should be carried out by a qualified person in accordance with IEE (Institute of Electrical Engineers) wiring regulations (BS7671).

THIS APPLIANCE MUST BE EARTHED.

IN THE INTERESTS OF ELECTRICAL SAFETY, A 30mA RESIDUAL CURRENT DEVICE (RCD) MUST BE INSTALLED IN ALL UK 230-240V ELECTRIC SHOWERS. THIS MAY BE PART OF A CONSUMER UNIT OR A SEPARATE UNIT.

A suitable double-pole isolating switch for supply disconnections must be incorporated in the fixed wiring circuit in accordance with current wiring rules. This must have a mechanical indicator showing when the switch is in the OFF position. A neon lamp alone is not sufficient. (see the typical sysytem diagram in the MAINS VOLTAGE CONNECTION section overleaf). If it is fitted in the bathroom it must be a cord operated type. The switch must be readily accessible and clearly identifiable in zone 3 i.e. at 0.6m horizontally from the shower cubicle or edge of bath, or located above zone 2 (i.e. adjacent to the shower cubicle or edge of bath, but at least 2.25m from the floor) as detailed below. This requirement does not apply to the pull cord from the switch. See illustration overleaf.

Where shower cubicles are located in rooms other than bathrooms, any socket outlet in the room must be situated at least 3m from the shower cubicle and protected by a 30mA RCD.



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YOUR ATTENTION IS ALSO DRAWN TO THE SAFETY INFORMATION DETAILED WITHIN THE IMPORTANT INFORMATION SECTION AND THE ELECTRICAL RATING SECTION. Page 10.

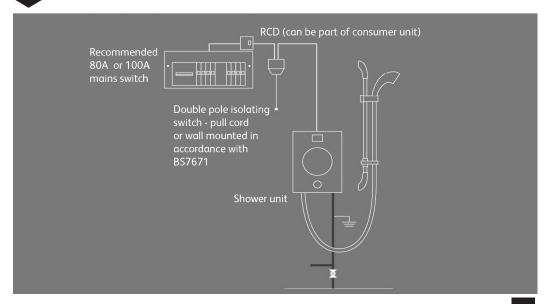
Mains voltage connection

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Please refer to the typical system diagram shown below.

The following notes are for guidance only – the installation must comply with current regulations

Please ensure you have read and understood the Electrical installation section on page 8 prior to completing any electrical connections.





BEFORE ANY ELECTRICAL CONNECTION IS ATTEMPTED, THE ELECTRICITY SUPPLY MUST BE TURNED OFF AT THE MAINS SWITCH. FAILURE TO DO SO COULD RESULT IN ELECTROCUTION.

- 1
- The shower unit must only be fitted to a 230-240V ac supply.
- 2
- The shower unit must be connected to its own independent electrical circuit. It MUST NOT be connected to a ring main, spur, socket outlet or lighting circuit, otherwise the circuit will overheat.
- 3
 - Check that the consumer unit (main fuse box):
 - a) Has a main switch rating of 80A or above and
 - b) Has a spare fuse way which will take the fuse/mcb (miniature circuit breaker) that you need to fit.
 - If so you can wire the shower direct to the consumer unit (please refer to the typical system diagram overleaf).
 - (Not all consumer units accept a 35/40/45A sized fuse).
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- If the consumer unit has a rating below 80A or if there is no spare fuse way, then the installation will not be straightforward. It may be necessary to install a new consumer unit to service the whole house or just the shower. A qualified person should install this. It may be necessary to contact the electricity supplier to upgrade the incoming supply.

Electrical rating



Refer to the electrical rating diagram (shown below) to determine the nominal current of the shower. The current rating of the supply cable must be at least that of the shower itself. Use the chart to choose a fuse or mcb with a rating of less than that of your chosen cable.

Shower rating @ 240V		8.5kW		9.5kW		10.5kW	
Nominal current @ 240V		35.4A		39.6A		43.8A	
МСВ	rating	40A		40A		45/50A	
Cartridge fuse		40	/45A	40/-	45A	45	5A
		Min cable size mm²	Max cable run in m	Min cable size mm²	Max cable run in m	Min cable size mm²	Max cable run in m
Туре	Installed in insulated wall	10	61	10	55	10	50
of cable	Conduit or trunking	6	37	10	55	10	50
run	Clipped direct or buried in uninsulated wall	6	37	6	33	10	50

If upgrading to a higher kW shower it is essential to ensure that the electrical circuit, including the wiring and isolating switches are adequate for the increased load.

Notes:

- 1. Cable selection is dependant on de-rating factors detailed in the notes below.
- 2. In certain installations the combination of low voltage and extended cable lengths may result in loss of power and a consequential reduction in flow rates.
- 3. Above cable sizes are the minimum acceptable sizes. Sizes greater than these shown above may be used and should be used if cable runs are greater than indicated (above cable runs are based on a maximum 9.6v drop).
- 4. Rewirable fuses are not recommended and are not covered by this table.
- 5. Installation should be carried out by a qualified person. Please refer to BS7671 (Wiring regulations) if in doubt.
- 6. A 16mm² cable may be required for long cable runs.

Cables which are chased into the wall must be protected by the use of a conduit or sheathing. Surface mounted cables must also be protected by a suitable approved conduit.

The current rating will be reduced if the cable is:

- a. Bunched with others.
- b. In an ambient temperature above 40°C.
- c. In an insulated wall or within thermal insulation, e.g. loft insulation.
- d. In any other unusual position.

If in doubt about any aspect of electrical insulation, consult a qualified electrical engineer or the electricity supplier.



WE STRONGLY RECOMMEND NOT USING REWIRABLE FUSES.

Wiring installation

- 1 Loosen the terminal screws and insert the wires as indicated on the back plate moulding.
- Resecure the terminal block screws. Ensure connections are tight and secure to prevent overheating.



- Any cable MUST NOT have the outer insulation stripped back beyond the bottom of the backplate and must be protected from water as shown.
- 16mm cable can only be used for bottom entry due to the ability to bend the cable.



If fitting the shower unit with bottom entry connections remove the blanking cap from the service tunnel.



Place the service tunnel onto the shower unit ensuring it fits flush with the shower unit back plate.



Earth bonding

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The installation must be earth bonded in accordance with current regulations.

Where earth bonding of the premises is not evident, it may be necessary to run a bonding cable back to the earth terminal at the consumer unit.

Shower head installation

The shower head should be sited close to the shower unit, not necessarily on the same wall, but so that the unit is not subjected to continuous spray. Ensuring the shower hose is not kinked or under strain, the shower head should be sited so that it is no more than 610mm (2ft) above the bottom of the unit or no lower than 305mm (1ft) below the unit, when in its normal position in the shower head holder.

- THE SHOWER OUTLET, HOSE AND HANDSET ACT AS A VENT. THEY MUST NOT BE BLOCKED, OBSTRUCTED OR HAVE CONNECTED TO THEM ANY FITTING NOT APPROVED BY GAINSBOROUGH BATHROOM PRODUCTS LIMITED. THE USE OF UNAPPROVED ACCESSORIES MAY INVALIDATE THE GUARANTEE AND MAY AFFECT THE PERFORMANCE AND SAFETY OF THE UNIT.
- 1 Prepare two fixing points 465 470mm vertically apart using the fixings provided, if suitable.
- Pass the rail through the handset holder whilst keeping the slider button depressed.



To comply with current water supply regulations, the handset should not be able to pass a point 25mm above the spill over level of the bath or tray. If this is not achieved, then the hose restraint/gel hanger must be used Slide this onto the rail under the handset holder.



Fit the rail into the rail end bodies taking care to engage the location slot onto the lugs.



Secure the rail assembly to wall using the fixings provided, if suitable, ensuring the rail and rail end bodies remain firmly engaged.

Place the rail end caps into the rail ends and push firmly into position.



 $Please\ complete\ the\ commissioning\ procedure\ detailed\ overleaf\ prior\ to\ connecting\ the\ handset\ and\ hose.$

Front cover installation and shower commissioning

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This shower must be fully commissioned following the procedure detailed below before use. Failure to do so could damage the shower and invalidate the guarantee.

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Hold the cover next to the shower unit on the wall and carefully attach the connector as follows:

GSX

Connect to the flying lead.

GSX Plus

Connect to the PCB unit.

GSX Deluxe

Connect to the PCB unit.



2 Carefully offer the front casing onto the back plate assembly ensuring the wires are not trapped. Refit the fixing screws and secure the front cover to the backplate.



The control knob, in the fully cold position, may have to be slightly adjusted to enable the keyways to align.



Ensuring the front cover is fitted correctly, secure the cover to the back plate using the fixing screws, taking care not to overtighten.



Without fitting the shower head, fit the hose washer into the hose and attach to the shower outlet to allow the water to discharge safely to waste.



Turn the flow control knob to ensure it moves smoothly. If not, the knob may be fitted incorrectly. The shower should be commissioned with the knob in the mid position (12 o'clock).



If installing GSX model, set the power/heat setting to low.



Turn on the electrical isolation switch and press the start stop button.



The GSX Deluxe LCD screen on the shower unit will display 3 dashes.

- Select the low power/heat setting. (Refer to the separate user guide booklet).
- Slowly turn the flow control knob towards the hot direction. The heater elements should now be hotter and the temperature of the spray should increase.
- Adjust the flow control knob to provide the desired temperature. Allow a few seconds after each adjustment for the temperature to stabilise. A cool shower can be achieved with the flow control knob set towards the cold direction. The temperature achieved will depend on the incoming water temperature, pressure and power setting.
- Repeat the above procedure with the other power/heat settings.
- Remove the labels from the front cover of the fitted unit ensuring the model and bar code label located under the unit remain in place.

Handset to hose assembly

Pass the hose through the hose restraint (if required). Ensuring the hose washer is in the correct position, connect the hose to the handset, taking care not to overtighten and place into position within the handset holder.



Thermal trip

The Thermal trip cut out will operate with extreme water temperatures. Power to the heater element(s) is cut when the trip operates. Power restores when the water is cold enough to reset the trip. Unless the temperature dial is adjusted, or other cause of high temperature is eliminated, the element(s) will continue to cycle on/off and the temperature will cycle hot and cold. Temperature reduces, but the heat setting knob (GSX) / button indicator (GSX Plus & Deluxe) remains at its set position.

Electronic cut out

GSX Plus & Deluxe include a 2 stage electronic cut out feature.

If a high water temperature is sensed, the unit will automatically switch down one heat setting until a comfortable temperature is reached. This procedure repeats every few seconds if the temperature is still too high and may include cycling from High > Medium >

After use, if the power to the shower is NOT isolated, the last used heat setting (determined by the Electronic cut out) will be automatically applied.

If power to the shower IS applied after use, at next operation, the shower will start in default, COLD heat mode.

Stage 2

If an extreme water temperature is sensed, the unit will flash all heat setting button lights (GSX Plus) / LCD screen flash red, stating "Over heat" (GSX Deluxe) and will automatically shut the heater element(s) down. Cold water will flush through the unit before turning the water off. All lights will remain illuminated (GSX Plus) / The LCD screen will display fault message E2 (GSX Deluxe) with the Start/stop button pushed in to indicate the unit is in fault mode. The lights and error message will remain on and the unit in fault mode until the Start/stop button is pressed to turn the unit off.

User guide

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Please refer to the separate user guide booklet provided.

After installation

Inspection & maintenance

In the interest of safety, we recommend the GSX range and its electrical installation are checked by a qualified electrician at least every 2 years.

After installation

Familiarise the end user with the GSX product operation and hand them this guide.

Complete and post the GSX guarantee card and optional guarantee extension agreement document.

Cleaning and maintenance

Your GSX product should be cleaned using only a soft cloth and washing up liquid.

DO NOT USE ABRASIVE CLEANERS.

To reduce the requirement for chemical descaling in hard water areas, the shower head incorporates rub clean teats. Any scale build up that may occur in any of the holes can be broken down by gently rubbing the flexible tips of the jets during use. This procedure should be completed regularly, as often as once a week in some hard water areas as scale build up can affect the spray pattern and cause the shower to perform poorly. Failure to descale the shower head can affect the internal seals and may affect the warranty.

Should chemical descaling of the head become necessary, remove the shower head and fully immerse in a mild proprietary descalent.

IT IS IMPERATIVE THAT DESCALING IS CARRIED OUT STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. SUBSTANCES THAT ARE NOT SUITABLE FOR PLASTICS AND ELECTROPLATED SURFACES MUST NOT BE USED.

Cleaning the filter

Cleaning the filter should only be completed by a competent person.

- 1. Turn the power supply to the shower off at the consumer unit or mains fuse board.
- 2. Isolate the water supply to the shower.
- 3. Remove the fixing screws from the front cover, detach the solenoid connector(s) and pull the front cover clear.
- 4. Unscrew using a large flat bladed screwdriver if required and remove the filter assembly from the shower unit inlet.
- ! For rear and bottom fed inlet connections, it may be necessary to remove the unit from the wall.
- 5. Clean the filter assembly as necessary.
- 6. Refit the filter assembly and protective cover. Reassemble the unit in reverse of the above procedure.





Trouble shooting guide

! These checks must only be performed by a competent person.

Warning! There are no user serviceable components beneath the cover of the appliance.

IF YOU ARE UNABLE TO REMEDY THE PROBLEM WITHOUT REMOVING THE COVER, YOU SHOULD CONTACT YOUR INSTALLER OR A QUALIFIED ELECTRICIAN.

Only a competent tradesperson should remove the front cover.

!! The electrical supply to the shower MUST BE isolated at the consumer unit (fuse board) prior to the front cover being removed!!

Where the fault cannot be corrected by yourself or your installer, DO NOT REMOVE THE UNIT FROM THE WALL, but contact the Customer Services Department, who will provide assistance over the telephone. If necessary, they can arrange a visit by a service engineer. We find the vast majority of problems can be resolved by reference to these fitting instructions or by discussion over the telephone. In the event an engineer is called and the fault is caused by faulty installation, usage or lack of reasonable maintenance, a call out charge will be made.

Pressures

To ensure optimal performance and that the shower is working to specification:-

- Try reducing the flow rate (increasing demand temperature) to increase dynamic pressure and selecting the
 appropriate heat setting to give required showering temperature.
- Check inlet requirements (see Important Information Pressures section).
- Ensure no other main water devices are being used whilst showering (e.g. toilet, garden hose, washing machine, etc).
- Check pipework for potential blockages/pressure losses.
- Ensure the stop cock and servicing valves are fully open. Ensure full bore isolation valve has been fitted.
- Check with the local water authority to check the running pressure is above the minimum required (see Important Information – Pressures section). This may be apparent during periods of high demand or when other outlets are used.

IF YOU ARE UNABLE TO REMEDY THE PROBLEM WITHOUT REMOVING THE COVER, YOU SHOULD CONTACT YOUR INSTALLER OR A QUALIFIED ELECTRICIAN.

ACTIONS HIGHLIGHTED IN BOLD TEXT MUST BE COMPLETED BY A QUALIFIED INSTALLER/ELECTRICIAN/SERVICE ENGINEER AS STATED.

	Action	Check isolator switched on, and remains on (pull cord or wall mounted switch) Check MCB or fuse at consumer unit Check RCD (if fitted) Renew the fuse or reset MCB/RCD if required If fault persists contact your installer Check 230/240V at shower terminal block (Installer/electrician only task) Possible wiring fault or poor connections	See trouble shooting pressures section	Shower has overheated. This is a non-user serviceable part, shower component must be replaced Contact Customer Services Department	This is a non-user serviceable part, shower component must be replaced Contact Customer Services Department
guide	Possible cause	 No power (power light indicator on unit not lit) Electrical supply isolated at double pole switch Fuse blown or MCB/RCD tripped, indicating possible electrical fault Power cut Incorrectly wired product 	Low pressure/water supply turned off (low pressure indicator on unit lit when unit is operated, or red screen with low pressure message for GSX Deluxe models)	Permanent thermal trip activated	Faulty on/off button/switch
■ Trouble shooting guide	Symptom	Will not switch on – power light not lit/LCD screen blank	Will not switch on – power light lit/LCD screen shows 3 dashes		

	Action	See trouble shooting pressures section	Replace damaged/kinked hose	Turn temperature control knob anti-clockwise (towards cold)	If so, DO NOT USE a) Switch off immediately at the electrical isolation switch b) Turn off at isolation valve c) Contact our Customer Service Department	Disconnect handset from hose and run the shower	a) If water flows then handset is blocked with scale or debris. Clean the handset and spray plate thoroughly b) If the water does not flow, remove the hose from the shower unit i) If the water flows the hose is blocked. This could be due to damage, severe kinking or even an obstruction. The hose must be replaced with an approved hose. Contact our Customer Service Department ii) If the water does not flow, there is a blockage in the plumbing to the shower, or the shower itself or the filter iii) Contact the Customer Service Department if you suspect the shower to be at fault
uide	Possible cause	Low pressure/water supply turned off (low pressure indicator on unit lit when unit is operated, or low pressure message on screen & screen is red for GSX Deluxe)	Damaged/kinked hose	Water temperature control knob is turned fully clockwise (full hot)	SHOWER UNIT IS SUSPECTED OF BEING FROZEN	There may be an outlet blockage	
Trouble shooting gui	Symptom	No flow or Not enough flow (See also poor spray pattern below)					19

	Action	Remove filter for inspection – refer to Cleaning and Maintenance section	Check flow rate/pressure – see trouble shooting pressures section NB It is unlikely to achieve the requirements with a header tank	Replace – contact Customer Services Department	Replace. In hard water areas consider the use of a water softener – contact Customer Services Department	Increase heater setting (note: for GSX Plus & Deluxe only, when turned on after the power has been isolated the default power setting is no power (cold))	Reduce the flow by slowly turning the temperature control knob in a clockwise direction (towards hot). Note: For GSX Plus & Deluxe units, if the knob is turned to select too hot a temperature, the safety temperature switch inside the shower will turn off the heater elements until a suitably lower temperature is reached. If this happens turn the knob anti-clockwise (towards cold) to increase flow and adjust power setting as required
ig guide	Possible cause	Blocked inlet filter	Inlet flow rate insufficient	Flow valve faulty	Heater tank excessively scaled	Incorrect heater setting	Water flow too high
o Ironbie snooting	Symptom	No flow or Not enough flow (See also poor spray pattern	below)			Flow adequate but water too cold, or not hot enough	

Trouble shooting guide	guide	
Symptom	Possible cause	Action
Flow adequate but water too	Insufficient water supply	See trouble shooting pressures section
	Pressure switches not activating/ Low water pressure (low pressure indicator on unit should be lit, or low pressure message on screen & screen is red for GSX Deluxe).	See trouble shooting pressures section
	Permanent thermal trip has operated	Shower has overheated. This is a non-user serviceable part, shower unit must be replaced. Contact Customer Services Department
	Over temperature device (GSX Plus & Deluxe) or temporary thermal trip has activated	Shower has overheated. Increase the flow by slowly turning the temperature control knob in an anti-clockwise direction, and change power/heater setting if required. Switch off unit, allow to cool, and on again to reset.
	Sensitive adjustment	Slowly adjust dial waiting for temperature to settle in between changes.
	Possible failure of microswitch or heater element	Use a suitable continuity device to check the continuity of the microswitch or heater tank and replace parts as necessary (Installer/electrician only task). Contact Customer Services Department.
	Low inlet temperature (seasonal conditions)	Increase heat setting & temperature knob as required. Note: At times of extreme cold water inlet temperatures you may only be able to achieve a warm shower.
21		

	Action	Replace. In hard water areas consider the use of a water softener. Contact Customer Services Department	Consult a qualified electrician	Contact Customer Services Department	Increase the flow by slowly turning the temperature control knob in an anti-clockwise direction (towards cold). Note: For GSX Plus & Deluxe units, if the knob is turned to select too hot a temperature, the safety temperature switch inside the shower will turn off the heater elements until a suitably lower temperature is reached. If this happens turn the knob anti-clockwise (towards cold) to increase flow and adjust power setting as required. See trouble shooting pressures section
g guide	Possible cause	Heater tank excessively scaled	Low voltage	Faulty flow valve	Water flow too low
™ Trouble shooting guide	Symptom	Flow adequate but water too cold, or not hot enough			Water too hot

Trouble shooting guide	de	
Symptom	Possible cause	Action
Flow adequate but water too hot	Incorrect hose/handset fitted	Fit correct hose/handset
	Damaged/kinked hose	Replace damaged/kinked hose.
	Incorrect heater setting	Reduce heater setting
	Spray plate blocked with scale or debris	Clean handset spray plate - see cleaning and maintenance section
	Debris in inlet filter	Remove for inspection - see cleaning and maintenance section
	Water pressure too low (low pressure indicator on unit should be lit, or low pressure message on screen & screen is red for GSX Deluxe models)	See trouble shooting pressures section
Temperature varies dramatically while showering	Incorrect hose/handset fitted	Fit correct hose/handset
	Water pressure too low or unstable	See trouble shooting pressures section
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Action	Clean handset spray plate - see cleaning and maintenance section Increase the flow by turning the temperature control knob in an anti-clockwise direction (towards cold) and/or reduce the heater selection to reduce the outlet temperature	Shower has sensed a high outlet temperature and is reducing the power setting to reduce temperature until the temperature dial/power setting is adjusted correctly. Turn the knob anti-clockwise (towards cold) to increase flow and adjust power setting as required See trouble shooting pressures section	Clean handset - see cleaning & maintenance section Replace damaged/kinked hose Flow rate will naturally be lower when the inlet temperature is low, this applies to all electric showers. Consult a qualified electrician
Possible cause	Spray plate blocked with scale or debris Temperature setting too high/Thermal cut out operating (normally making a "click sound" as it does so)	Temperature setting too high/Over temperature device activated	Partially blocked handset Damaged/kinked hose Low water inlet temperature Low voltage
Symptom	Temperature varies dramatically while showering	Temperature drops dramatically while showering (& stays low)	Poor spray pattern. (refer also to handset instructions)

	Action	Ensure the correct supplied handset is used and clean from limescale. Ensure the hose is not damaged or kinked. Turn off the electrical isolating switch and service valve—contact Customer Service Department.	Ensure hose is correctly fitted and tight Ensure hose washer is fitted correctly	Ensure pipe is correctly fitted and compression nut is fully tightened. Ensure brass inlet fitting provided has been used. The copper olive provided (not brass) must be used	Consult Customer Services Department	Tighten hose connections	Remove hose & handset, empty the hose & handset of water, then reattach, and see if drips from handset	Continue. If so unit needs replacing, please contact Customer Services Department	Clean the handset – see cleaning and maintenance section
guide	Possible cause	Pressure Relief Device (PRD) has operated due to excess pressure build-up in the head or hose. This has activated because of the shower outlet being reduced or blocked	Hose incorrectly fitted, or hose washer incorrectly fitted/missing	Inlet connection leaking	Internal seals/unit leaking	Shower head draining	Flow valve faulty		Partially blocked/scaled handset
Trouble shooting gui	Symptom	Water runs from bottom of unit when shower is in use	Water runs from around the hose when shower is in use	Leaking		Drip from shower head			25

Trouble shooting guide

	Action	Fit correct hose/handset	Clean handset spray plate - see cleaning and maintenance section	Remove for inspection – clean as necessary, see cleaning and maintenance section. Check inlet supply	Replace – contact Customer Services Department	Replace. In hard water areas consider the use of a water softener. Contact Customer Services Department	Replace – contact Customer Services Department	Replace – contact Customer Services Department	Switch off at consumer unit or mains fuse board. Remove front cover ensuring the service tunnel is correcty fitted flush with the unit back plate. Refit as per pages 7 and 14, taking care to position knob correctly and ensure cover is correctly fitted
	Possible cause	Incorrect hose/handset fitted	Spray plate blocked with scale or debris	Partially blocked filter or restriction on supply (isolation valve / stopcock)	Flow valve faulty	Heater tank failure/ Heater tank excessively scaled	Microswitch failure	PCB failure (GSX Plus & Deluxe)	Cover/knob fitted incorrectly, knob not correctly engaged
ı	Symptom	Operation of temperature control has little or no effect on	water temperature						

Trouble shooting gui	uide	
Symptom	Possible cause	Action
No change in temperature between low/medium/high setting	Insufficient inlet pressure	See trouble shooting pressures section
1	Possible failure of flow valve, heater tank or microswitch	Use a suitable device to check the continuity of the microswitch or heater tank & replace parts as necessary—contact Customer Services Department
	Possible failure of PCB (GSX Plus & Deluxe)	Replace if necessary – Contact Customer Services Department
Unit shuts itself down (GSX Plus & Deluxe models only)	Extreme over temperature protection operating GSX Deluxe shows red screen flashing 'Over Heat' & 'Shutting Down' while shutting down, then E2 and overheat on screen while still on, in fault condition, GSX Plus flashes lights around all heat select buttons while shutting down, then lights around all buttons remain on steady to indicate the unit is in fault condition. N.B. The 'Start/stop' button is still depressed.	Resolve cause of high temperature, then press start/stop button once to turn off, then again to turn on the shower (note: on start—up the water standing in the incoming pipework may be at higher temperatures than the normal inlet water, if this is the case this will give higher temperatures than the last shower until the standing water is cleared, if this is the cause adjust temperature control knob/heater settings to compensate while clearing standing water then restore normal showering settings)
27		

Trouble shooting gui	de	
Symptom	Possible cause	Action
Time for water to run when shutting down varies (GSX Plus & Deluxe)	No fault – intelligent phase shut down	The time required for phase shut down is dependent on how long it takes to reach a low water temperature, once the required temperature is reached the unit shuts off instantly
E1 on screen for GSX Deluxe models/low pressure light	Faulty temperature sensor	Replace – contact Customer Services Department

Fault finding error messages

Fault indication for GSX

flashing on GSX Plus models & shower does not operate

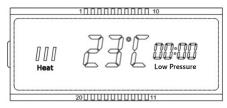
• If the starting pressure is less than 0.7 bar when the shower is turned on, the "Low Pressure" warning light will illuminate red.

Fault indication for GSX Plus

- If the starting pressure is less than 0.7 bar when the shower is turned on, the "Low Pressure" warning light will illuminate red
- If extreme outlet temperatures are reached the unit will initiate a safety phase shut down, with the lights around the heat select buttons flashing. Once shut down the lights around the buttons remain on constantly to indicate an error state. The Start/stop button remains in the "ON" position but there is no water flow. To reset, press the 'Start/stop' button twice.

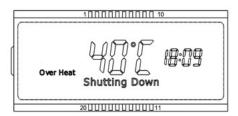
Fault indication for GSX Deluxe

• If the starting pressure is less than 0.7 bar when the shower is turned on, the "Low Pressure" text will flash on the LCD display and the LCD will be backlit red.



Low pressure display

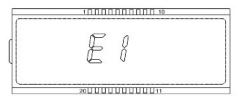
• If extreme outlet temperatures are reached, the unit will initiate a safety phase shut down. Under this condition, the screen will flash red and "Over Heat" and the elements will switch off. Water flow will be flushed through the unit before stopping.



Over temperature alarm display

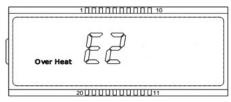
Fault codes

• If the unit has a temperature sensor failure, the unit will default into E1 error mode, the shower will not operate in this mode. The LCD will display "E1", it will flash and the LCD will be backlit red.



Temperature sensor failure display

• After the Over Temperature alarm display, the unit will default into E2 error mode, in this state, the Start/stop button remains in the "ON" state, but there is no water flow. To restart the unit, the Start/stop button must be pressed twice. The LCD will display the "Over Heat" text, and an error code "E2" and will not be backlit.



Over heat

Notes	

Approvals

The Gainsborough GSX range is manufactured in an ISO 9001:2000 registered factory and has been designed and tested to the very highest standards. It complies with all relevant international standards for safety and reliability.





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Part No: 700132 Issue 1 Jul 12

Please note that calls may be recorded for training and quality purposes

The company reserves the right to alter, change or modify the product specifications without prior warning

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