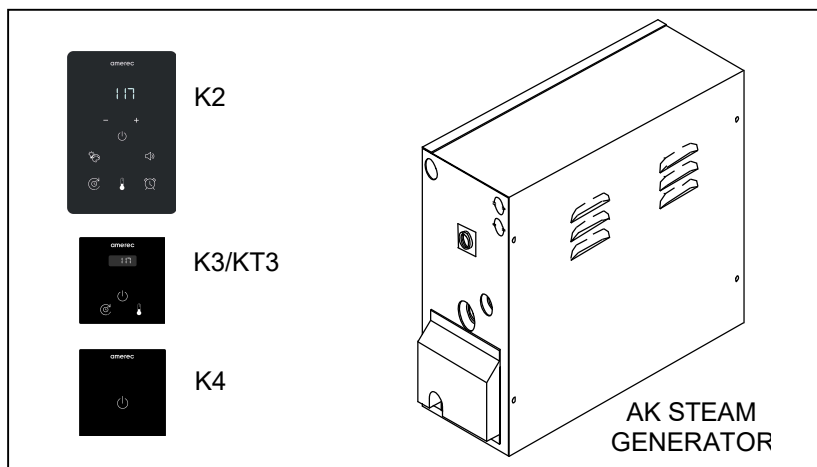




AK INSTALLATION AND SERVICE INSTRUCTIONS



**These instructions apply to the
AK4.5, AK6, AK7.5, AK9, AK11, and AK14**

**240V 1/3 Phase Models.
(Use 240V models for 400-415V~N3 installations)
FOR USE WITH K2, K3, KT3 and K4 CONTROLS**

SAVE THESE INSTRUCTIONS

READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLATION.

**POST SAFETY "WARNING" LABEL OUTSIDE STEAMBATH. LABEL
SHOULD BE POSTED ON OR ADJACENT TO DOOR TO STEAM
ROOM IN COMMERCIAL INSTALLATIONS.**

SECTION 1: GENERAL INFORMATION

Amerec steam generators are tested by Intertek-ETL Laboratory. The steam generators come assembled and ready for installation. Check that the size and rating of the generator is suitable for your application.

AK steam generators may be connected as a ganged system where one Steam generator controls one or two other generators. Bath controls connect to the primary steam generator and the primary steam generator connects to the second generator (and third generator, if installed). This provides more power for large rooms and light commercial use. *See appendix to this document for details.*

We recommend choosing steam generators which are closely matched in power. The highest kW steam generator should be the primary unit. Each generator should have its own drain valve.

Note: The AK steam generator may be configured for single or three phase power during installation

IMPORTANT

An extractor fan installed outside the steam room, above and adjacent to the door, is required to remove excess steam from the bathroom or shower area.



CAUTION

*Electrical grounding is required on all
Amerec Steam Generators.*

*All electrical supplies should be
disconnected when servicing generator.*

*All wiring must be installed by a qualified
electrician.*

*All plumbing must be installed by a
qualified plumber.*

*AK series generators are
for indoor use only.*

*AK series generators are not for
space heating purposes.*

*Be certain that steam bath enclosures
are properly sealed to avoid water
damage from escaping steam. It is
recommended that PTFE Tape (or
similar) and silicone be used to seal all
pipes and fittings. Steam must be
prevented from escaping into the wall
cavity.*

*Never shut off the water to a
steam generator that is in use.*

*Electric Shock Hazard - High voltage
exists within this equipment. There
are no user serviceable parts in this
equipment.*

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For further assistance please contact us;

amerec[®]

3 The Felbridge Centre

Imberhorne Lane

East Grinstead

West Sussex

RH19 1XP

01342 300555

sales.uk@sauna360.com

Thank you for purchasing your new Amerec AK steam generator.
If we can be of any assistance, please call our Technical Support at 01342 300555.

FOR THE SAFETY OF YOU AND YOUR FAMILY OR CUSTOMERS, PLEASE READ THE FOLLOWING WARNINGS AND ALL INSTRUCTIONS BEFORE USING YOUR STEAMBATH.

POST "STEAMBATH INSTRUCTIONS" LABEL OUTSIDE STEAMBATH FOR SAFETY WARNINGS.

SAVE THIS MANUAL

FOR THE SAFETY OF YOU AND YOUR FAMILY OR CUSTOMERS, PLEASE READ THE FOLLOWING WARNINGS AND ALL INSTRUCTIONS BEFORE USING YOUR STEAMBATH. POST "STEAMBATH INSTRUCTIONS" LABEL OUTSIDE STEAMBATH FOR SAFETY WARNINGS.



WARNING



Electric Shock Hazard - High voltage exists within this equipment. Disconnect all electrical power before servicing the generator. All installation and service to this equipment should be performed by qualified licensed contractors. There are no user serviceable parts in this equipment.

Electrical grounding is required on all HELO steam generators. The generator is designed for hookup with copper wire only, 75°C or better.

Wire the controls exactly as described. Do not connect any additional wiring or power supplies to the controls or their terminals in the generator.

Service only by authorised personnel!

All plumbing must be installed by a qualified plumber.

Install indoors only. Protect from freezing. Generator must be level side to side and end to end.

The pressure relief valve and generator drain must be installed in such a fashion that the risk of scalding is reduced to a minimum. Draining these outlets into the steam room may present a scald hazard and may damage materials used to construct the room.



Danger To reduce the risk of explosions, do not interconnect the steam lines!!

Caution The steam outlet carries hot vapour! A separate steam line is required for each steam outlet. Do not connect a valve or shut-off in the steam line! Avoid traps and valleys in the steam line where water could collect and cause a steam blockage. The hot steam line must be insulated against user contact.

Do not install the steam head near a bench or where steam may spray or where condensation will drip on the user as this will present a scald hazard.

Be certain that steam bath enclosures are properly sealed to avoid water damage from escaping steam. It is recommended that PTFE Tape (or similar) and silicone be used to seal all pipes and fittings. Steam must be prevented from escaping into the wall cavity. Centering the steam pipe is critical in rooms made of plastic, acrylic, resin, fiberglass or similar materials. Allowing the steam pipe to touch materials not rated 115°C or higher will result in damage to these materials.

Merci pour l'achat de votre nouveau AMEREC AK générateur de vapeur.

Si nous pouvons vous être utiles n'hésitez pas à appeler notre assistance technique au 1-800-363-0251.

**POUR LE SÉCURITÉ DE VOTRE FAMILLE ET VOUS OU CLIENTS, VEUILLEZ
LIRE LES AVERTISSEMENTS SUIVANTS ET TOUTES LES INSTRUCTIONS AVANT
D'UTILISER VOTRE BAIN DE VAPEUR.**

**POST "BAIN DE VAPEUR" LABEL HORS D'UN BAIN DE VAPEUR D'INSTRUCTIONS
POUR DES AVERTISSEMENTS EN MATIÈRE DE SÉCURITÉ.**

ENREISTREZ CE MANUEL

**POUR LA SÉCURITÉ DE VOTRE FAMILLE ET VOUS OU VOS CLIENTS, VEUILLEZ LIRE
APRÈS AVERTISSEMENTS ET TOUTES LES INSTRUCTIONS AVANT D'UTILISER VOTRE BAIN DE VAPEUR.**

**POST "BAIN DE VAPEUR" LABEL HORS D'UN BAIN DE VAPEUR D'INSTRUCTIONS POUR DES
AVERTISSEMENTS EN MATIÈRE DE SÉCURITÉ.**



AVERTISSEMENT



Risque de choc électrique - Haute tension existe au sein de ce matériel. Débranchez toute source d'alimentation avant de procéder à l'entretien du générateur. Toutes les instructions d'installation et service à cet équipement doit être effectuée par du personnel autorisé qualifié conformément aux codes locaux et nationaux. Il n'y a pas de pièce réparable par l'utilisateur à cet équipement.

Mise à la terre électrique est requis sur tous les générateurs bain de vapeur AMEREC. Le générateur est conçu pour connecter un fil de cuivre uniquement, 75 °C ou mieux.

Câbler le contrôle très exactement comme indiqué. Ne connectez aucun câblage supplémentaire ou blocs d'alimentation pour les commandes ou leurs terminaux dans le générateur.

Service uniquement par le personnel autorisé!

Toute la tuyauterie doit être installé par un plombier sous licence conformément à tous les codes locaux et nationaux applicables.

Installer à l'intérieur uniquement. Protéger du gel. Générateur doit être mise à niveau latérale et l'extrémité à l'autre.

La valve de limitation de pression et purge du générateur doit être installé de telle façon que le risque de brûlure est réduit à un minimum. Vidange de ces prises dans la salle de vapeur peut présenter un risque de brûlure et peut endommager les matériaux utilisés pour construire la salle.



Danger Pour réduire les risques d'explosion, ne pas connecter les conduites de vapeur t!!

Attention La sortie vapeur transporte vapeur chaude ! Une conduite de vapeur distincte est requise pour chaque sortie vapeur. Ne connectez pas une valve ou l'arrêt dans la conduite de vapeur! Éviter les pièges et les vallées dans la conduite de vapeur où l'eau pourrait recueillir et provoquer un blocage de vapeur. La vapeur chaude ligne doit être isolée par rapport au contact de l'utilisateur.

Ne pas installer la tête de vapeur près d'un banc ou où la vapeur peut pulvériser ou où la condensation s'égoutter sur l'utilisateur comme cela présentera un risque de brûlure.

Etre certain que le bain de vapeur boîtiers sont étanches afin d'éviter les dégâts d'eau de s'échapper la vapeur. Il est recommandé que 100% mastic au silicone utilisée pour obturer tous les raccords et tuyaux. La vapeur doit être empêché de s'échapper dans la cavité du mur. Centrage du tube à vapeur est critique dans les chambres faites de plastique, de l'acrylique, résine, la fibre de verre ou des matériaux similaires. Permettant le tube à vapeur pour toucher les matériaux non coté 115°C ou plus aura pour effet d'endommager ces matériaux.

POST "WARNING LABEL OUTSIDE STEAMBATH FOR SAFETY WARNINGS

 WARNING	
REDUCE THE RISK OF OVERHEATING AND SCALDING	
1. Exit immediately if uncomfortable, dizzy or sleepy. Staying too long in a heated area is capable of causing overheating. 2. Supervise children at all times. 3. Check with a doctor before use if pregnant, diabetic, in poor health or under medical care. 4. Breathing heated air in conjunction with consumption of alcohol, drugs or medication is capable of causing unconsciousness.	
CAUTION!	Do not contact steam head. Stay at least 12" away from hot steam escaping from the steam outlet.
REDUCE THE RISK OF SLIPPING AND FALL INJURY	
Use care when entering or exiting the steam room, floor may be slippery.	
05-21-07 4110-79	NOTE: <i>For additional safety instructions, see owner's manual.</i>

Étiquette d'avertissement "Extérieur poste bain de vapeur pour les avertissements relatifs à la sécurité

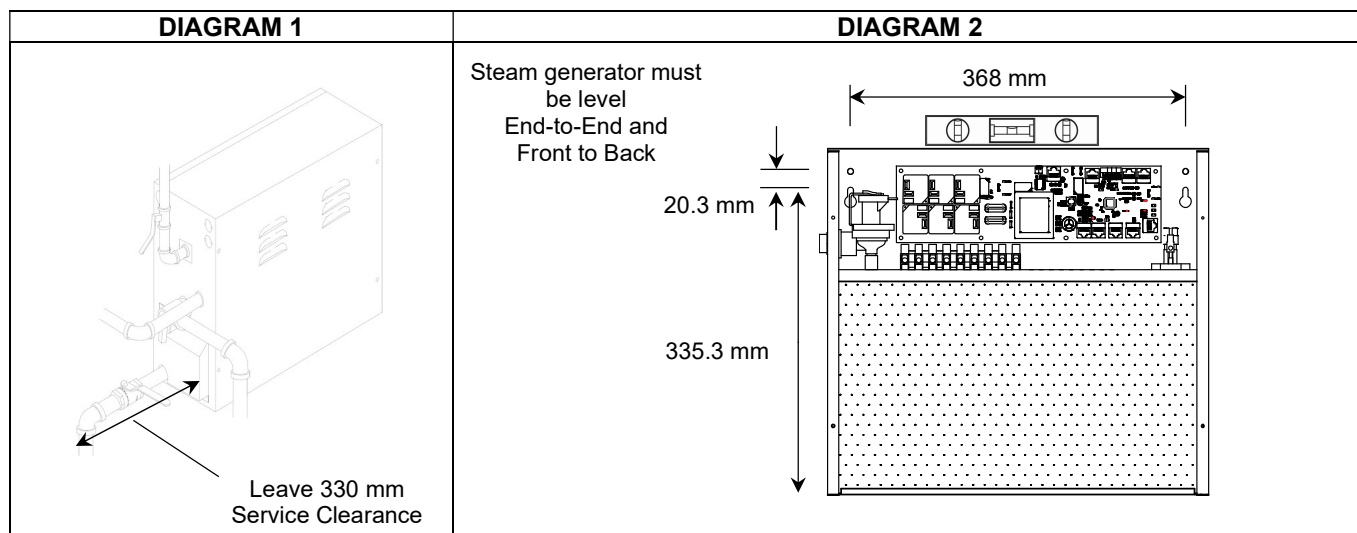
 AVERTISSEMENT	
Réduire le risque de surchauffe et de brûlures	
Quitter immédiatement si mal à l'aise, étourdi ou somnolent. De rester trop longtemps dans une zone chauffée est capable de causer une surchauffe. Supervisez les enfants en tout temps. Vérifier avec un médecin avant d'utiliser en cas de grossesse, diabétique, en mauvaise santé ou nécessitent des soins médicaux. Respirer de l'air chaud en conjonction avec la consommation d'alcool, de drogues ou de médicaments peuvent causer la perte de conscience.	
PRUDENCE!	Ne contactez pas tête de vapeur. Séjour d'au moins 305 mm de vapeur s'échappant de la tête de vapeur.
Réduire le risque de dérapage et de chute	
Utiliser les soins en entrant ou en sortant de la salle de vapeur, le sol peut être glissant.	
05-03-16 4110-79	Remarque : Pour d'autres consignes de sécurité, voir le manuel du propriétaire.

IMPORTANT USER SAFETY INSTRUCTIONS

1. **READ AND FOLLOW ALL INSTRUCTIONS.—SAVE THESE INSTRUCTIONS!**
2. The steam bath is not intended for use by anyone (including children) with reduced physical, sensory or mental capabilities or who lack experience or knowledge, unless they have supervision or training on the use of the steam bath by a person responsible for their safety.
3. **WARNING** - To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times. Ensure they do not play in the steam bath.
4. **WARNING** - To reduce the risk of injury:
 - a. The wet surfaces of steam enclosures may be slippery. Use care when entering or leaving.
 - b. The steam head is hot. Do not touch the steam head and avoid the steam near the steam head.
 - c. Prolonged use of the steam system can raise excessively the internal human body temperature and impair the body's ability to regulate its internal temperature (hyperthermia). Limit your use of steam to 10 to 15 minutes until you are certain of your body's reaction.
 - d. Excessive temperatures have a high potential for causing fetal damage during the early months of pregnancy. Pregnant or possibly pregnant women should consult a physician regarding correct exposure.
 - e. Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a steam bath.
 - f. Persons using medication should consult a physician before using a steam bath since some medication may induce drowsiness while other medications may affect heart rate, blood pressure and circulation.
5. **WARNING** - Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 37°C. The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness and fainting. The effects of hyperthermia include:
 - a. Failure to perceive heat:
 - b. Failure to recognize the need to exit the steam bath:
 - c. Unawareness of impending risk:
 - d. Fetal damage in pregnant women:
 - e. Physical inability to exit the steam bath: and
 - f. Unconsciousness.
6. **WARNING** - The use of alcohol, drugs or medication can greatly increase the risk of hyperthermia

-
1. **Lire et suivre toutes les instructions. -- Conservez ces instructions !**
 2. Le bain de vapeur n'est pas destiné à être utilisé par toute personne (y compris les enfants) avec toutes leurs capacités physiques, sensorielles ou mentales ou qui manquent d'expérience ou de connaissances, à moins qu'ils aient la supervision ou de la formation sur l'utilisation du bain de vapeur par une personne responsable de leur sécurité.
 3. **Avertissement** : Pour réduire les risques de blessures, ne pas permettre aux enfants d'utiliser ce produit, sauf s'ils sont étroitement surveillés en tout temps. S'assurer qu'ils ne jouent pas dans le bain de vapeur.
 4. **Avertissement** : pour limiter les risques de blessure :
 - a. Les surfaces mouillées de boîtiers de vapeur peut être glissant. Soyez prudent lorsque vous entrant ou sortant.
 - b. La tête de vapeur est chaud. Ne pas toucher la tête de vapeur et éviter la vapeur près de la tête de vapeur.
 - c. Une utilisation prolongée de la chaudière à vapeur peut augmenter excessivement la température du corps humain et d interne nuisent à la capacité du corps de régler sa température interne (hyperthermie). Limitez votre consommation de vapeur pour 10 à 15 minutes jusqu'à ce que vous soyez certain de la réaction de votre corps.
 - d. Des températures excessives ont un haut potentiel de causer de dommages foetaux pendant les premiers mois de la grossesse. Enceinte ou peut-être les femmes enceintes devraient consulter un médecin au sujet de l'exposition correcte.
 - e. Les personnes obèses et les personnes ayant des antécédents de maladie du coeur, tension artérielle basse ou élevée, des problèmes du système circulatoire ou de diabète devraient consulter un médecin avant d'utiliser un bain de vapeur.
 - f. Les personnes qui utilisent ces médicaments devraient consulter un médecin avant d'utiliser un bain à vapeur depuis quelques médicaments peut induire une somnolence tandis que d'autres médicaments peuvent affecter la fréquence cardiaque, la tension artérielle et de la circulation.
 5. **Avertissement** - L'hyperthermie survient lorsque la température interne du corps atteint un niveau à plusieurs degrés au-dessus de la normale de la température corporelle de 37 °C. Les symptômes de l'hyperthermie comprennent une augmentation de la température interne du corps, sensation vertigineuse, léthargie, somnolence et d'évanouissement. Les effets de l'hyperthermie comprennent :
 - a. L'incapacité de percevoir la chaleur
 - b. L'incapacité à reconnaître la nécessité de quitter le bain de vapeur :
 - c. La méconnaissance de l'imminence d'un risque :
 - d. Dommages au fœtus chez les femmes enceintes :
 - e. Incapacité physique pour quitter le bain de vapeur : et
 - f. L'inconscience.
 6. **Avertissement** - La consommation d'alcool, de drogues ou de médicaments peut augmenter considérablement le risque d'une hyperthermie

SECTION 1: MOUNTING THE STEAM GENERATOR



The Amerec steam generator can be hung on a wall or sit on its base. The best mounting location will satisfy all or most of the following:

WARNING: The generator will not operate properly, unless it is mounted level with the arrows pointed up

1. **The generator should be installed in a dry, well ventilated area.** Suggested locations are under a vanity, in a cupboard, attic, crawl space or basement. **Do not mount outdoors or under steam room bench.**
2. If the generator is installed in a restricted area it is important there is easy access to the stop valve and lever valve for drainage for maintenance by the user.
3. If the steam line is in an area where the temperature will be below 4°C best results can be obtained by insulating the steam pipe. **Do not mount the generator in an area subject to freezing.**
4. The minimum space required to mount the generator is 600mm (w) x 600mm (h) x 200mm (d).
5. **The location must allow access for service!** Provide clearance for plumbing and electrical service and for element removal. See Diagram 1.
6. The steam line should slope to allow condensation to drain. The mounting location should minimize the number of bends and elbows in the steam line
7. The mounting location should allow for a drain hook up.
8. The steam line can be a maximum of 7.5m. It is advisable to insulate the copper pipe for efficiency.

WARNING

- There must be no dips or valleys in the steam line.
- Install the steam head so as to avoid potential user direct contact with the steam or where condensation may drip on the user as this may present a scald hazard.
- **Do Not** install any valves or other shut-off devices in the steam line!
- **Do Not** interconnect steam lines! A separate steam line is required for each generator!
- **Do Not** connect the drain line to the steam line or allow the drain empty into the steam room!
- **Do Not** connect the pressure relief valve into the steam line or vent it where someone nearby could be scalded!
- **Do Not** allow the relief valve to vent into the steam room!

SECTION 1: MOUNTING THE STEAM GENERATOR (continued)

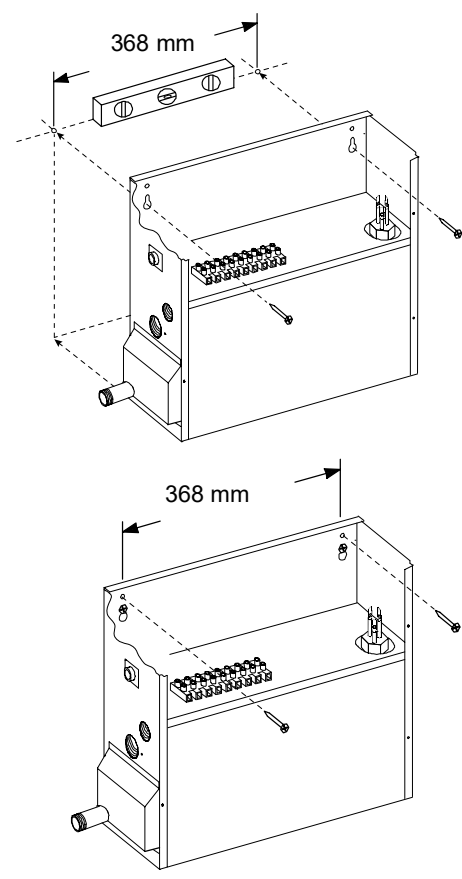
1. **WALL MOUNTING:** Remove the side cover. Note the location of the mounting holes on the back of the generator. The screws must set directly into studs or equivalent supports. Drill pilot holes on 368 mm centres and install the two 5 x 40mm screws. *See on the right.*

- a) Carefully hang the generator on the two screws. Tighten the screws.
- b) The generator may be further secured with two screws mounted on the same 368 mm centres as shown.
- c) Replace the front cover with its four screws.

2. FLOOR MOUNTING:

- a) In general, the width of the unit allows it to sit on a shelf, across the ceiling joists or on a floor. The generator must be restrained from moving. Normally, the piping will provide adequate support. If not, additional support must be provided.
- b) All floor installed generators must provide for routine draining of the tank and for draining the safety valve's outlet.

WALL MOUNTING



SECTION 2: WATER QUALITY REQUIREMENTS

The nature of a steam bath generator requires testing of the feedwater to avoid potential high concentrations of impurities which can cause a deposit or scale to form on the internal surfaces. This deposit or scale can interfere with the equipment's proper operation and even cause premature failure. Concentration of impurities is generally controlled by treating the feedwater and or draining the generator when it is not heating. The draining process involves removing a portion of the tank water with high solid concentration and replacing it with fresh water.

This is particularly important in areas with high calcium levels and other water quality problems. Calcium build-up can cause poor steam generator performance and damage the heating elements!

If the generator is served with water with a high chalk content (i.e. from bore hole or similar) it is essential to supply water fully softened via a salt based water softener. Failure to do this will allow foaming within the generator tank and lead to early element failure.

To ensure proper operation, the water supply should be tested prior to operating the equipment. There are several treatment processes which can be used if you have a problem with hard water. A local reliable water treatment company can recommend the appropriate treatment if required. The recommended feedwater quality is listed below.

Recommended Feedwater Quality

Hardness	10 – 30 ppm - (0.5 - 1.75 gpg)
T-Alkalinity	150 – 700 ppm - (8.75 - 40.8 gpg)
Silica Range	15 – 25 ppm - (1.28 - 1.45 gpg)
PH (strength of alkalinity)	10.5 -- 11.5

IMPORTANT!

Regular maintenance will help your steam generator work properly for a long time. Check for leaks, loose or damaged wires, signs of corrosion and calcium build up in the tank on the level probe.

SECTION 3: PLUMBING INSTRUCTIONS

All plumbing should be installed by a qualified plumber.

Materials Needed:

A kit of fittings is provided for fitting in the UK as follows:

- Compression fitting 15mm x 3/8"
- 2 x 15/22mm bush
- Pipe fitting 15mm
- 15mm x 3/4" stop valve
- 15mm non return valve
- 3 x 22mm male solder fittings
- Flexible water feed hose – 1.5m

1. INSTALL WATER LINE Connect a mains cold water line to the generator's water inlet valve. Use the provided compression fitting 15mm x 3/8" to allow connection of the water feed hose. Fit the provided stop valve together with the non-return valve in the water feed line and join with the provided water feed hose. Ensure the stop valve is open before initial turning on of generator.

IMPORTANT

- Water pressure should be between 0.5 bar and 2 bar. If necessary, install a pressure regulation valve to achieve this.
- It is essential to use the flexible hose provided both to reduce operational noise and for ease of service.
- The generator should be mounted in a space where there is easy access to both the stop valve for safety and the tank drain lever valve so that regular maintenance can be carried out.
- Flush water supply line before final hookup.

2. INSTALL STEAM LINE

- At the generator:** Use the provided pipe fitting with 15mm thread to connect to the steam generator outlet then add 15/22mm bush to allow connection of 22mm copper pipe.
- Run the 22mm copper pipe from the generator to the steam room taking note of the below points. Refer to SECTION 1: MOUNTING THE STEAM GENERATOR and Diagrams 3a and 3b.
 - The steam line must slope to allow condensation to drain into the tank or room.
 - When routing the steam line, it can travel vertically or horizontally upwards or downwards. It may not travel down and up as this will create a trap which will cause spitting and eventually prevent steam delivery altogether.
- The steam line should enter the steam room between 305 mm and 460mm above finished floor level. The steam line outlet should be at least 150 mm from other steam heads to either side and 305 mm from walls or other surfaces to either side. See Diagrams 4, 5 and 6.

SECTION 3: PLUMBING INSTRUCTIONS (continued)

Diagram 3a

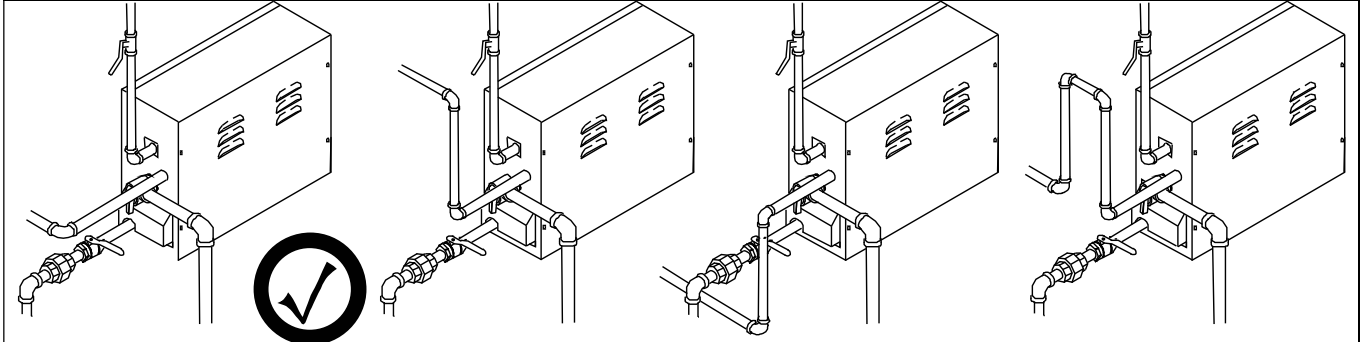
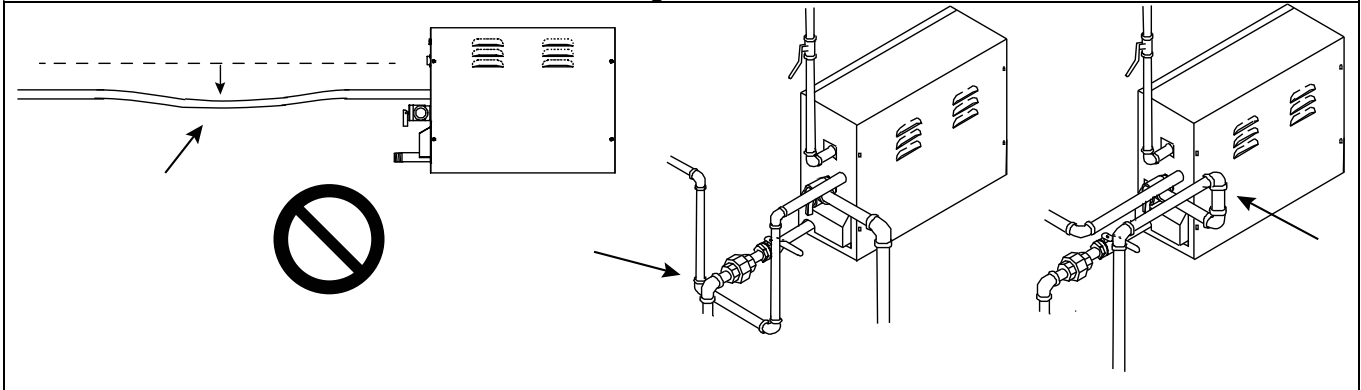


Diagram 3b



Note: See Diagram 6 for a typical installation. Additional steam heads may be added to any installation to reduce steam noise or to provide more steam dispersion around a large room. *For large AK14 steam generators, we recommend using 2 steam heads to reduce the noise level while in operation. Steam heads should, however, all be placed in the same area so that there is only one area of localized heat.*

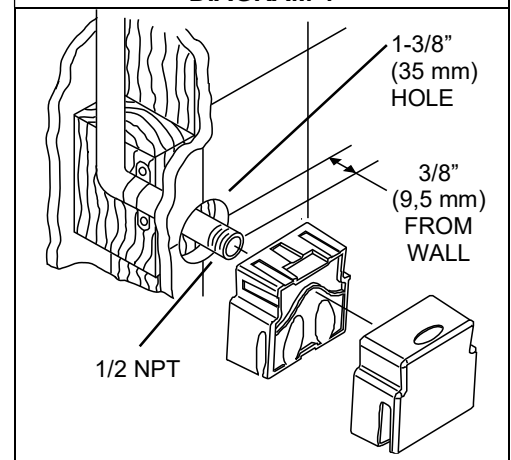
Note: if steam vents are too close to other surfaces, the steam may be cooled and the surfaces damaged.

d) **At the steam room:** Drill/prepare a 35 mm hole for the steam line entry. Center the 22mm copper steam pipe in the hole. See Diagram 4.

- Terminate the steam line with the provided 22mm male solder fitting.
- The steam head insulator requires only 2 turns on the 22mm male fitting to prevent damage to the plastic. Ensure that a minimum amount of thread is provided to achieve this.
- Secure the steam line to a structural member.

3. INSTALL STEAM HEAD INSULATOR: Fill in gap (using Silicone between steam pipe and finished wall surface at point of entry (see Diagram 4). Apply silicone to the finished wall side of the steam head insulator (see Diagram 5) and screw on hand tight until it is flush with the wall with the opening pointing down. If a hand tight fit does not align with the opening pointing down, use PTFE tape on the steam line threads to adjust the fit.

DIAGRAM 4



SECTION 3: PLUMBING INSTRUCTIONS *(continued)*

4. INSTALL STEAM HEAD: Slide the steam head on until it rests firmly against the finished wall. Tighten the hex head screw underneath the steam head to secure it in place with the Allen key provided. The steam head should be level with its fragrance reservoir at the top. See Diagrams 4 and 6.

IMPORTANT

All fixture holes must be sealed with silicone to avoid moisture damage within walls. Check all of the standard fixtures in the steam room.

DIAGRAM 5

SILICONE
BACK
SIDE

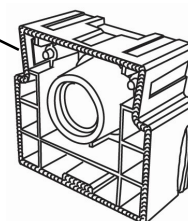
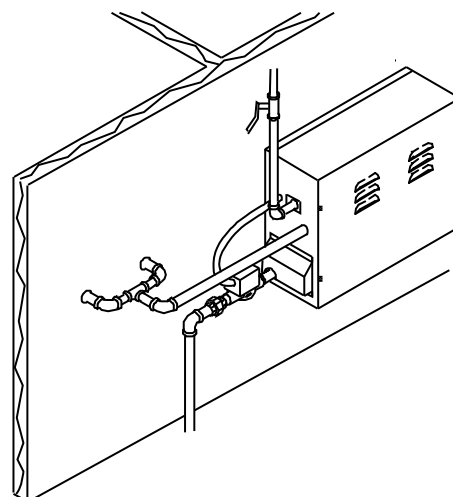
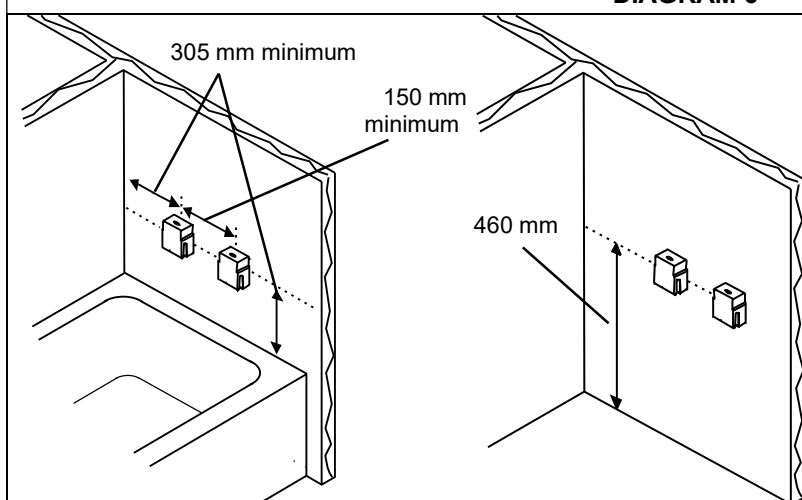


DIAGRAM 6



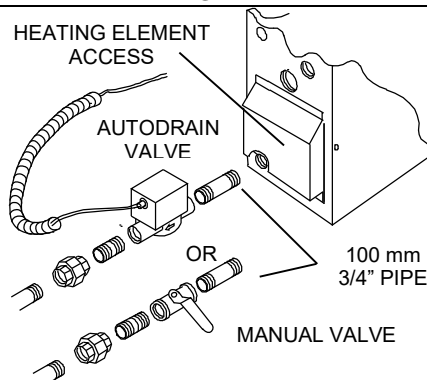
Shown with optional 2nd steam outlet.

5. INSTALL PRESSURE RELIEF SAFETY VALVE: Install the pressure relief valve into its port on the generator. Install the safety valve within 150 mm of the generator. Run a 22mm copper line from the safety valve to a gravity flow drain. The pressure relief valve outlet must drain in accordance with plumbing regulations.

6. INSTALL DRAIN VALVE: Install 3/4" NPT pipe nipple directly into the tank as shown in Diagram 7. Install the 3/4" lever valve on to the nipple then use the provided 22mm male solder fitting to enable piping to drain. Run a 22mm copper line from the fitting to a gravity flow drain via a tundish. The drain must be connected in accordance with plumbing regulations.

7. AUTODRAIN: Where the generator is in very regular use and run for long periods an automatic drain kit is optionally available. For more information, please contact our Service Department on 01342 300555.

DIAGRAM 7



Diagrams 7 and 8 show the optional Autodrain valve

SECTION 3: PLUMBING INSTRUCTIONS *(continued)*

IMPORTANT

All drain lines must run downhill, away from the steam generator! *Also see Diagram 3*

- Do not run the drain uphill.
- Do not drain the safety valve into the steam line!
- Do not drain the safety valve into the steam room! Draining the tank into the steam room may present a scald hazard or damage the materials used to construct the steam room.

SECTION 4: WIRING INSTRUCTIONS

ALSO SEE ELECTRICAL INFORMATION CHART AND WIRING DIAGRAMS

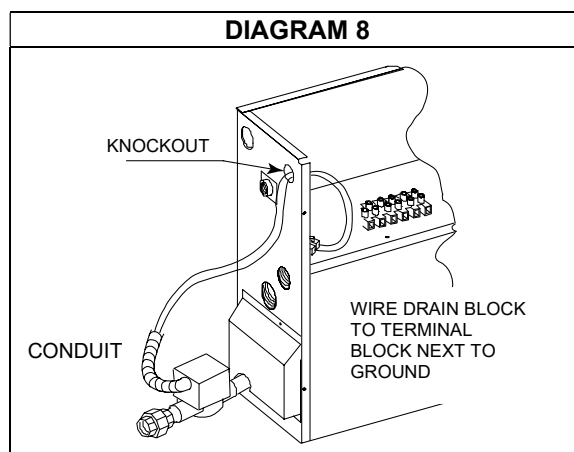
- ELECTRICAL CONNECTION:** Size wire for the generator as required by electrical regulations. See the electrical information on page 13 for further information. Use copper wire only. Leave 1.2 m of slack wire at generator location for final connection. Connect the generator to a rotary isolator of suitable amperage.
 - Route the copper supply wire with appropriate strain relief through the hole marked POWER ENTRY.
 - Connect the supply wires to the power terminal block as indicated on the wire diagram for your voltage and phase. This may require moving factory installed jumper. *Do not change the steam generator's internal jumpers or wiring. Only the supply wiring side of the terminal blocks require configuration by the installer.*
 - Connect the Earth wire to the copper Earth ground lug.
 - Cover the supply wires inside the steam generator with a protective mesh or similar material to protect them from water valve heating.

2. ELECTRICAL INFORMATION

Generators are designed for connection to 240V single phase or 415V three phase supply.

All Units are factory wired for single phase installation. The installer may change the input to three phase + Neutral during initial installation (see the wiring diagrams on page 18-19). AK14 generator is available for single phase connection only.

See page 19 for Mains Wiring Details. Note: *jumpers shown are supplied with the steam generator.*



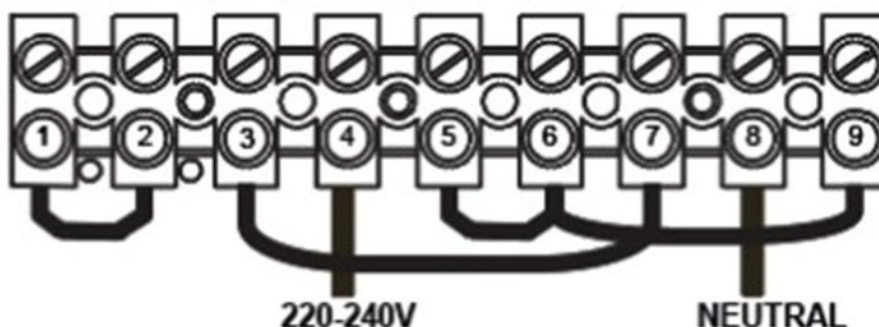
Electrical Information

Model	Rated VAC	Amps Phz	Breaker	Amps 3Phz	Breaker
AK 4.5	240	19	30	11	15
	415~N3			6	15
AK 6	240	25	40	14	20
	415~N3			8	15
AK 7.5	240	31	40	18	30
	415~N3			10	15
AK9	240	38	50	22	30
	415~N3			13	20
AK 11	240	46	60	26	40
	415~N3			16	20
AK14	415~N3			19	30

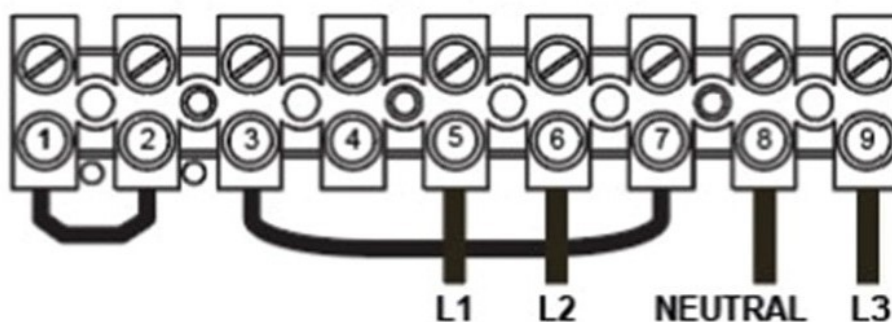
Notes:

- ❖ All steam generators must be on a dedicated circuit!
- ❖ Use only copper wire rated 600V~ and 75°C minimum
- ❖ All models require Earth ground
- ❖ All line voltage must be more than 195V~ while the steam generator is heating
- ❖ Steam generators must be connected via a rotary isolator and MCB.
- ❖ We recommend ceilings height be 2.4m max. Higher ceilings may cause sitting area to be uncomfortably cool and steam to rise and not circulate.

220 to 240V~N AK4.5, AK6, AK7.5, AK9, AK11 & AK14 240 V Models international.



380 to 415 V~3N AK4.5 to AK14 240 Models International



SECTION 5. K3 & KT3 CONTROLS

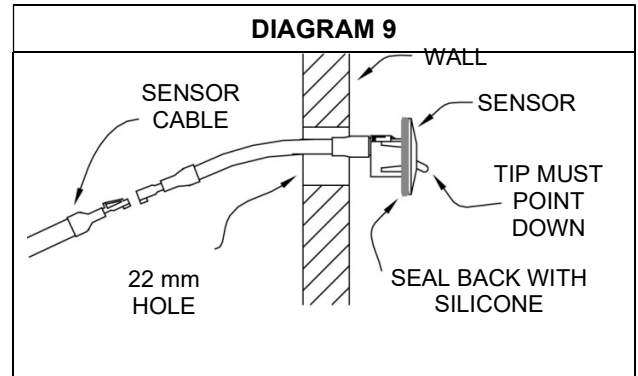
1. TEMPERATURE SENSOR CABLE CONNECTION (low voltage) It is required that the sensor be mounted in the steam room, but not directly over the steam dispersion head or near the door. The sensor should be located in a wall 150 mm below the ceiling but no more than 2.1 m above the floor. Route the sensor cable from the generator location to the sensor location in the steam room. We recommend this cable is fitted in suitable ducting for protection. Drill a clean 22 mm hole through the steam room wall at the sensor location. Leave 305 mm of slack at the sensor location. See Diagram 9.

Note: *Do not staple through or damage cable.*
Use factory supplied cables only.
For use with a K2 and K3 controls only!

INSTALL THE TEMPERATURE SENSOR ASSEMBLY inside the steam room. A 22 mm hole should already be in the steam room wall with the cable ready.

Make sure the sensor is not directly over the steam outlet head or near the door. The sensor should be located in a wall 150 mm below the ceiling but no more than 2.1 m above the floor. Carefully connect the sensor cable to the sensor. The cable end should slide into place and lock.

Run a light bead of silicone around the back surface of the sensor and slide it into the wall with the metal sensor tube pointed down. Tape the sensor to the wall until the silicone has set-up.



2. K2, K3, KT3 and K4 CONNECTION The low voltage controls can be mounted up to 7.5 m from the steam generator. All controls may be mounted either inside or outside the steam room. Route the control cable from the generator to the control location in the steam room. We recommend this cable is fitted in suitable ducting for protection. Note: *Do not staple through or otherwise damage cable. Use factory supplied cables only.*

3A INSTALL K2, K3 or K4 GENERATOR CONTROL

The low voltage controls can be mounted directly to a finished wall either inside or outside the steam room. The K2, K3 and K4 controls have a short tube on the back to help locate the control and to protect the cable end. All of these controls connect to the steam generator's circuit board through HELO's CAT5 cable.

SECTION 5. BATH CONTROLS INSTALLATION (continued)

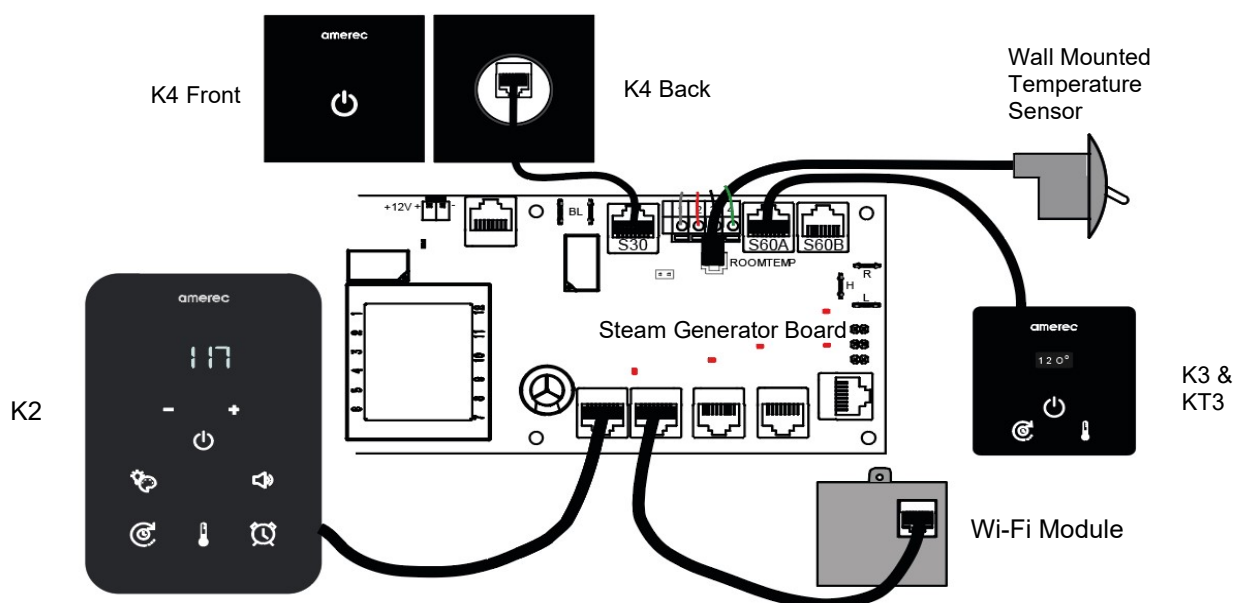
Use a 35 mm hole saw, to drill a hole in the finished wall where the control is to be mounted (the control cable should already be brought to this location). Plug the cable end into the jack in the back of the control.

Run a bead of silicone around the tube on the back of the control. Make sure there is enough to fill any grout lines and make sure the silicone is far enough from the edges to remain hidden after mounting to the wall.

Make sure the cable is firmly connected to the control then insert the control's tube into the mounting hole and firmly press the control against the wall. Level the control and tape it in place, then leave until the silicone is cured.

Route the generator end of the control cable through a knockout in the end of the generator and secure it using the strain relief provided. Plug the control cable into its socket on the steam generator's circuit board (see diagram below).

Note: for steam bath temperature control, a K3 and a wall mounted sensor or a KT3 (with built in sensor) must be installed. Only one KT3 may be installed. You may combine two K3s or a K3 with a KT3.



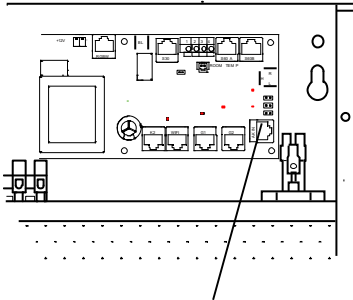
Note: The K2 and K3 controls provide bath temperature and run time control and they require a temperature sensor. The K4 is an on/off control used to start and stop the steam bath but it does not have temperature control. When using only a K4, turn the bath on when it is too cool and, if the bath becomes too hot, turn the bath off.

OPTIONAL SECONDARY CONTROL: It may be useful to have a control outside the steam room and another control inside the room. As an option, a K3 or K4 may be used as a second control with a K2 or a K4 may be used with a K3. *You cannot have two K2 controls connected at the same time.*

SECTION 6. CONTROL OPTIONS

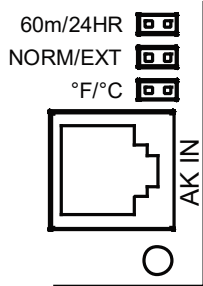
1. SELECT STEAMBATH RUN TIME (K2, K3 and KT3 use only)

For installations with K2, K3 or KT3 controls, the display can be set for a maximum bath time adjustable up to 60 minutes or up to 24 hours. Set the circuit board jumper as shown below. The jumper is located at the right edge of the board just above the AK IN jack.



2. SELECT NORMAL/EXTERNAL timer control

Leave this jumper on one pin if using any AK control. To use an external timer, set the jumper on both pins and connect two wires between the timer switch and the terminal block's positions 1 and 2. Position 2 is 5VDC and the timer's switch will connect the 5V back to position 1 to turn the steam bath on. **Do Not** connect any other voltage to this circuit! *There will be no temperature control and the steam bath will not automatically time out. The bath will heat as long as the time switch is closed.*



Jumper Positions



on one pin



on both pins

60 minute maximum bath time	24 hour maximum bath time
NORM = normal operation	EXT = connect manual timer to S30A
°F = Display temperatures in Fahrenheit	°C = display temperatures in Celsius

3. SELECT TEMPERATURE DISPLAY (K2, K3 and KT3 use only)

For installations with K2, K3 or KT3 controls, the temperature display can be set to Fahrenheit (°F) or Celsius (°C). Set the circuit board jumper as shown above. The jumper is located at the right edge of the board just above the AK IN jack.

SECTION 7. INITIAL START

1. Ensure power and water are on. Press the control's ON/OFF switch. The control should light then the water valve should turn on to fill the steam generator. *While filling, check for leaks.*
2. After the tank has filled to a safe level, the heating elements will turn on. Allow about 10 minutes for the steam to appear in the steam room.
3. Once the steam is visible, use the control to turn the bath off. The steam should stop within a couple minutes and the water valve should turn off. The control should not be lit.
4. Press the ON/OFF switch again. The control should light.
5. Within one minute the unit should again produce steam. It should call for water once every two minutes or more depending on its power rating. It is normal for the flow of steam out the steam head to slow for up to 10 seconds each time the unit calls for water.
6. The unit will shut down automatically in 30 minutes if a K4 control is used, or up to 60 minutes if the K2, K3 or KT3 control is used (depending on its TIME setting). When the time runs out the steam will stop and there should not be any water flow. The control should not be lit.

