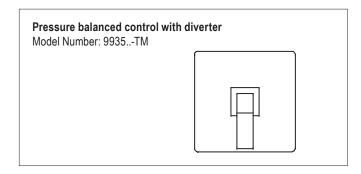


Please read the instructions completely before beginning the installation.



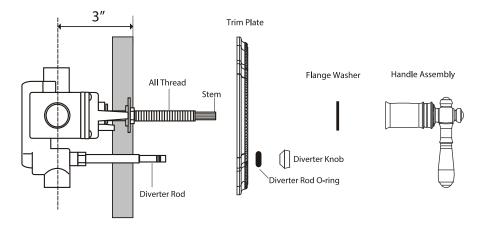
INSTALLATION INSTRUCTIONS

Rough & Trim Installation

- Make sure the water supply is off.
- Remove all the trim items (plate, handle, and flange) before installation.
- Secure the valve firmly against the stud. Make sure the ½" shower outlet is in the up position.
- Make sure to flush or raise grouting on the tiled wall surface.
- Adjust the all Thread depth against the teflon washer and limit stop.
- Screw the all thread against the teflon washer until it is pressured gently against each other.
- Position the valve using the dimension shown in the illustration B.
- Place the shower plate on the all thread.
- Thread handle set with the washer onto the all Thread with the Stem and mark the position.
- Take off the handle assembly and cut off the excess thread and stem.

Keeping handle set at 6 o'clock position, thread handle assembly onto the all thread by using escutcheon being caution not to over tighten.

- Place the trim plate grommet onto the designated hole for the diverter rod on the trim plate.
- Screw the diverter knob onto the diverter rod.



General characteristic

- Santec thermostatic valves are suitable for most waster heater systems provided it is installed correctly.
- Low pressure storage heaters are not recommended for this application.

Cartridge Cleaning

After years of use, impurities and lime scale can restrict the water flow. To clean the cartridge, please follow these instructions:

- 1- Remove the handle screw, handle trim, trim plate and the plate.
- 2- Shut off the waterline by turning the check valve shut off mechanism clockwise. Make sure that the both hot and cold sides are closed.
- 3- Wash the filter under running water or soak it with vinegar or de-scaling agent.
- 4- Reassemble the cartridge.
- 5- Open the check valve shut off mechanism, turn on the water and check water flow.
- 6- If the water flow is normal, reassemble the trim.

Filter Cleaning

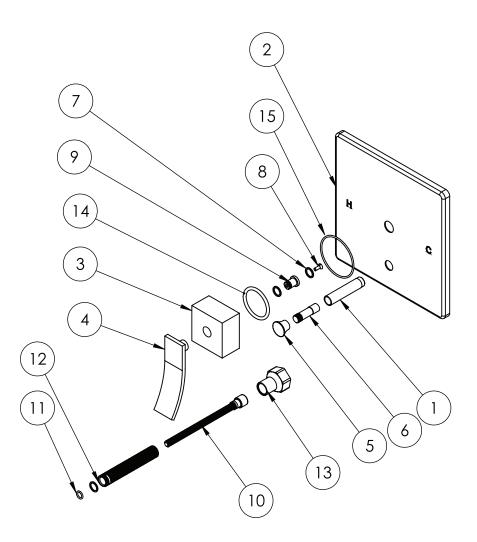
During the installation or through the years of use, debris and impurities may clog the filters in the both inlets, causing the water to be restricted or decreased considerably. Please follow these instructions to clean the filters:

- 1- Shut off the water supply.
- 2- Remove handle trim, trim plate, and the plate.
- 3- Remove the check valves using a slot screw driver.
- 4- Check for debris deposited on the screw underneath the integral stop.
- 5- Flush the debris with water.
- 6- Reinstall the integral stop.

Troubleshooting

MALFUNCTION	CAUSE	REMEDY	
Shower control opening through hot.	Hot and cold water supplies have been connected in reverse	Rotate cartridge	
Tub filler or Shower head drips after shutting off the valve.	- Water remains in the piping column to the shower head (this is normal) Incorrect setting of the mechanical stop against the stop post causing a partially opened cartridge O-ring seal on the inlet of the cartridge is faulty.	- Allow approximately 3-5 minutes to drain column. - Reset the mechanical stop as described in this page - Check O-ring for cut or damage and replace if necessary.	
Shower insufficiently hot.	- Adjustable handle position stop incorrectly set.	- Check hot water source temperature setting.	
No flow of hot or cold water.	- Either the hot or cold side is not fully pressurized Debris caught inside the inlet of the cartridge.	Be sure service stops (when applicable) are both wide open and system is fully pressurized. Remove cartridge and flush out or remove any debris lodged inside the hot or cold inlet.	
Valve body too deep into the wall.	The measured rough in or finished wall surface is incorrect.	Install the extension kit. PM460X(long sleeve). PM461X (long plastic upper link)	

NOTE: At no time try to stop dripping by applying extreme force when closing the valve.



#	PART DESCRIPTION	PART#
1	Diverter Sleeve	PM-460
2	PB w/ Diverter Plate	PH29915
3	PB Handle Base	PH0088
4	Widespread Handle Lever	PH0086
5	Diverter Knob	P00089
6	Diverter Stem	PM-462
7	Teflon Washer	PM-099
8	Screw	PM-439

#	PART DESCRIPTION	PART#
9	Short Broach	SA240S
10	20T Broach Extension	PM-007-1
11	O-Ring	PM-017
12	All Thread	PM-955
13	Nut	PM-956
14	O-Ring	PM-389
15	Roman Tub Handle O-Ring	PM-953

^{*} Please specify the finish when ordering the part.



FINISH CARE INFORMATION

WARNING: Do not clean your SANTEC product with ammonia (Window cleaner), bleach, soap, acids, abrasives, harsh polish, harsh cleaners, a coarse surfaced cloth, coarse sponge, or any type of scouring pad. Doing so may ruin your faucet finish and/or void the warranty.

Thank you for making SANTEC a part of your lifestyle and luxury spa experience. Our products have been created as works of enduring quality and sophisticated design.

Luxurious finishes need proper care and attention, so in order to understand how to properly clean your distinctive luxury finish, please refer to the finish care information below:

Your SANTEC product can be identified in one of two categories: clear coated finishes or non-clear coated finishes. Clear coated finishes are more scratch-sensitive and are more reactant to harsh cleaning chemicals than non-clear coated finishes. Once you have identified the specific luxury finish of your SANTEC product, please follow the important corresponding care instructions.

CLEAR COATED FINISHES

We recommend that all faucets, drains, etc., be gently wiped dry with a soft cloth after use to avoid water spotting and water deposit build-up. A mild liquid hand soap may be used occasionally if desired. Use of a non-abrasive carnauba wax will add protection to the finish and should be used if the faucets will not be dried after use. For clear coated finishes, it is recommended to clean your product weekly with a soft moist cloth.

NON-CLEAR COATED FINISHES

We recommend that all faucets, drains, etc., be gently wiped dry with a soft cloth after use to avoid water spotting and water deposit build-up. A mild liquid hand soap may be used occasionally if desired. Use of a non-abrasive carnauba wax is occasionally required and will add protection to the finish if the faucets will not be dried after use.

TO OBTAIN WARRANTY SERVICE

Please read 'WHAT IS COVERED BY OUR WARRANTY' and 'EXCLUSIONS AND LIMITATIONS OF WARRANTY' sections to understand what is and what is not covered. Please have ready the proof of purchase (original sales receipt), description of the problem, and carefully package the product or defective part with postage prepaid. Then, please contact your local SANTEC Showroom or write to SANTEC Technical Services.



LIFETIME LIMITED WARRANTY

SANTEC is committed to enhancing your bathroom experience by creating luxury products that will provide enduring satisfaction. Every effort has been made to satisfy the highest standards of design and production, to create lasting peace of mind for our customers. We provide the following limited warranties on our products:

LENGTH OF WARRANTY & WHO IS COVERED BY OUR WARRANTY

This warranty extends to the original consumer purchaser only and extends for as long as the original purchaser owns the product and the home in which the product is installed.

WHAT IS COVERED BY OUR WARRANTY

- 1. FINISHES: SANTEC Polished Chrome, Polished Nickel and Satin Nickel finishes carry a Lifetime Limited warranty against manufacturing defects and tarnish to the original purchaser. All other finishes carry a ten (10) year limited warranty against manufacturing defects and tarnish to the original puchaser only.
- 2. CARTRIDGES: Santec cartridges carry a lifetime limited warranty, with the exception of thermostatic and pressure balanced cartridges, which carry a three (3) year limited warranty against manufacturing defects to the original purchaser.
- PARTS: Santec parts carry a 10-year limited warranty against manufacturing defects, to the original purchaser.

EXCLUSIONS & LIMITATIONS OF WARRANTY

This warranty does not cover:

- 1. Damage due to negligence, accident, abuse, improper installation, or improper maintenance such as, but not limited to: heat from soldering during installation, the use of plumber's putty, damage from tools used during installation, the use or exposure to chemicals or cleaning products either abrasive or non-abrasive, or the use of any cleaning tool or product other than a soft, clean cloth. Reverse osmosis may also shorten the life of the finish.
- 2. Changes in the finish or in the product due to normal wear or aging does not cover any products or parts which have been altered or used in a manner not typical for the product.
- 3. Loss, damages, or expense, incidental or consequential whatsoever, originating from the purchase, installation, use, repair, failure, or replacement of any SANTEC product or part, allowed by law.
- 4. Commercial and/or Industrial installations and use of the product.
- 5. This warranty does not include labor, travel charges, or any costs incurred for repair, removal, installation, servicing, diagnosing, or handling of either defective or replacement parts.
- 6. Damage or deterioration caused by environmental impacts.

SANTEC reserves the product components of the covered product will be repaired, refinished, or replaced at the sole discretion of SANTEC. SANTEC reserves the right to examine any product claimed defective prior to any warranty claim being accepted or processed, at its sole discretion. This warranty gives you specific legal rights and you may have other rights which may vary from state to state.