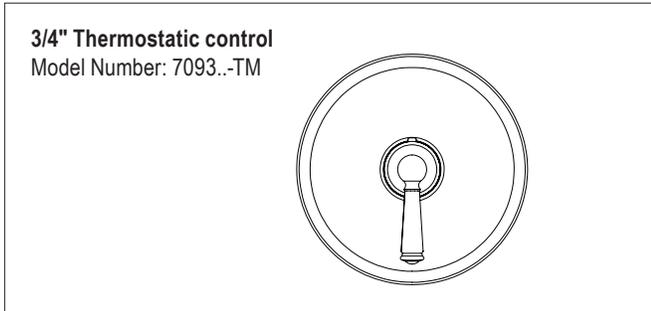


*Please read the instructions completely before beginning the installation.*



## INSTALLATION INSTRUCTIONS

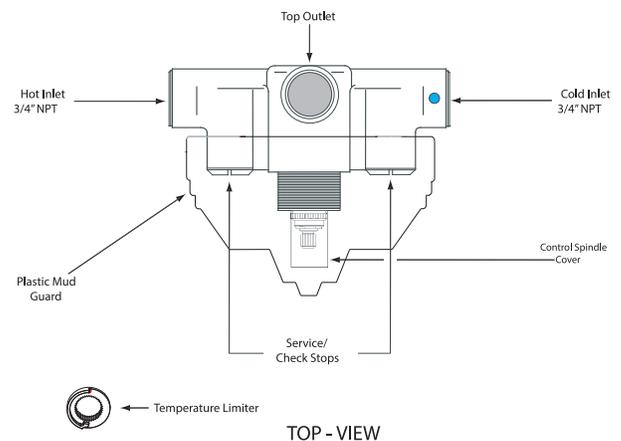
### Rough Installation

**IMPORTANT:** Do not remove the control spindle cover until instructed. Accidentally turning the control spindle will change the temperature setting, which is pre-calibrated from the factory.

- 1- Remove the large plastic mud guard from valve. do not discard plastic mud guard.
- 2- Install the tub plug into the bottom outlet. Leave it unplugged if including a tub spout. For details and diagrams of different shower/tub schemes, see the Installation Options section.
- 3- Completely flush the lines of all dirt and debris (metallic shavings, flux, etc.) prior to installing the thermostatic valve to the supply lines.

**IMPORTANT:** Do not solder directly to the valve. This will damage the service/check stops and the temperature control element. Use teflon tape or plumber's pipe compound to secure all connections to the valve.

- 4- Connect the HOT water supply to the left inlet of the valve (RED) and COLD supply to the right inlet of the valve (BLUE).



5- Secure valve position in the wall using min/max adjustment limits. For backset measurements. Not discard plastic mud guard.

6- Connect the top outlet pipe to shower connections and bottom outlet pipe to tub spout (depending on the shower/tub scheme chosen).

7- Remove the plastic control spindle cover and install the temperature limiter with the "red mark" positioned exactly at 12 o'clock. Remember to not turn the control spindle while installing the temperature limiter.

8- Re-install the large plastic mud guard back onto the valve and do not remove it until trim arrives.

exactly at 12 o'clock. Remember to not turn the control spindle while installing the temperature limiter.

## Trim Installation

**IMPORTANT: Do not turn control spindle. Accidentally turning the control spindle will change the temperature setting, which is pre-calibrated from the factory.**

1- Remove plastic mud guard.

2- Completely screw the sleeve ( 2 ) onto the valve until it bottoms out. Firmly tighten by hand

3- Remove outer layer of the adhesive strip on back of the plate ( 11 ) and slide plate over sleeve without adhering it to the wall.

4- Screw the lock nut onto the sleeve just enough to pull the plate back over the lock nut. This will make sure that the plate is centered over lock nut before adhering it the wall.

5- Tighten the lock nut down completely, which will secure the plate to the finished wall. Firmly press the plate to the finish wall making sure to get the best seal.

6- Press the dial ( 7 ) onto the control spindle with the 12 o'clock position being exactly between the H (hot) and C (cold) markings. Insert screw ( 5 ) into dial and tighten just firm enough to allow the dial to turn freely. Do not overtighten.

5- Install the handle ( 1 ) with the set screw hole facing downwards. Firmly tighten down the set screw ( 8 ) with the allen key ( 3 ).best seal.

## General characteristic

- Santec thermostatic valves are suitable for most water 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.
- 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.

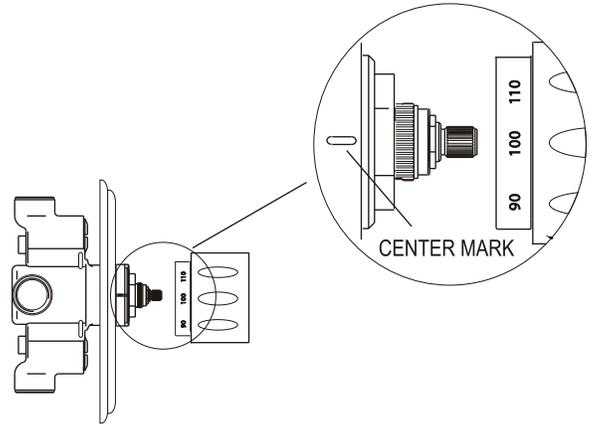
## Filter Cleaning

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, and the plate.
- 3- Remove the check valves using a slot screw driver.
- 4- Check for debris deposited on the screw underneath the intergral stop.
- 5- Flush the debris with water.
- 6- Reinstall the intergral stop.

## IF THE ACTUAL WATER TEMPERATURE IS DIFFERENT FROM THE DIAL

- 1- Take the handle off.
- 2- Turn the water on through the volume control, measure the actual water temperature with a regular thermometer.
- 3- Turn the dial until the thermometer shows 100F.
- 4- Remove the dial handle from the valve.
- 5- Align the 100F with the center mark of the valve cylinder, replace screw and tighten.
- 6- Insert the handle into the cartridge.
- 7- Tighten the handle screw.



## Specifications

### Temperature

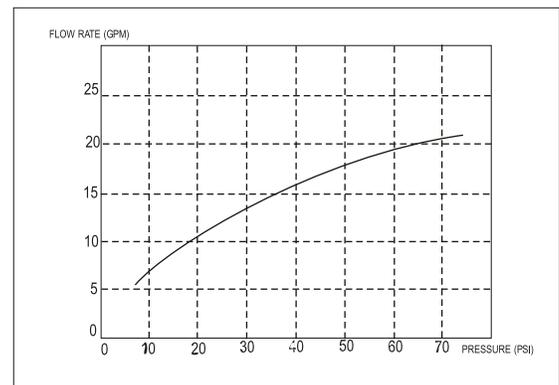
- Maximum temperature: 185F
- Temperature dial range: 50F to 149F
- Temperature Limiter set at 100F

### Operation Pressure

- Minimum 1.45 PSI
- Maximum 72.5 PSI

NOTE: For pressure greater than 75 PSI, pressure reducing valve is required.

FLOW RATE CHART



## Troubleshooting

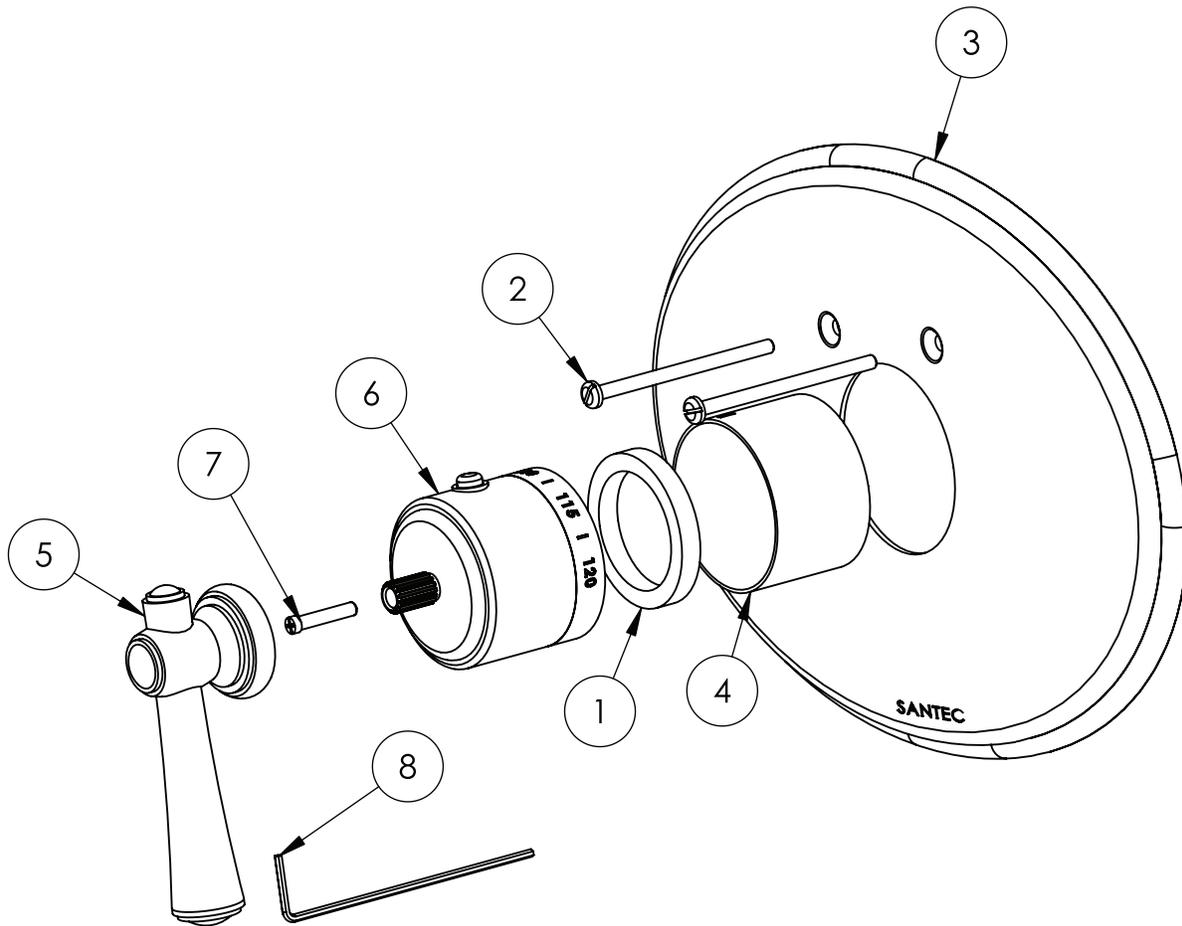
MALFUNCTION	CAUSE	REMEDY
Shower control opening through hot.	- Hot and cold water supplies have been connected in reverse	Rotate cartridge
Tub filler or Shower head drips after shutting off the valve.	- Water remains in the piping column to the shower head (this is normal). - Incorrect setting of the 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.**

The measurements shown are for reference only. Products and specifications shown are subject to change without notice.

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## PARTS DRAWING



#	PART DESCRIPTION	PART #
1	Red Silicon Washer	PH2601-7
2	Screw	PM-255-00
3	Thermostatic Plate	PH29000-00
4	Thermostatic Sleeve	PH2603-00
5	"VO" Thermostatic Handle	TH-VO
6	Thermostatic Handle Base Set	PH2611-1S-00
7	Screw	PM-5-4
8	Allen Key	PM-031

\* Please specify the finish when ordering the part.

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## 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 purchaser 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.
3. **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.

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