

# SANTEC

FLUID IMAGINATION

DESIGNER SERIES

PRESSURE BALANCED TUB  
& SHOWER WITH DIVERTER



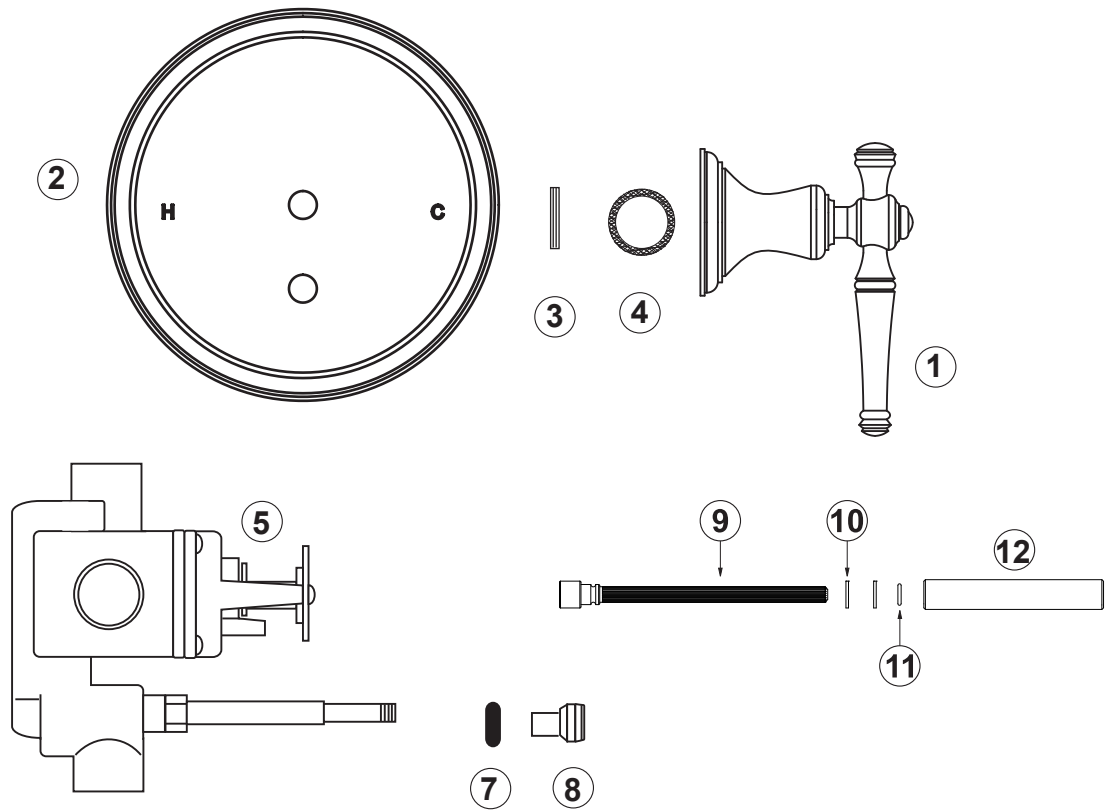
**KEEP THIS INSTRUCTION BOOKLET FOR FUTURE REFERENCE**

Important : Please register your product online at [www.santecfaucet.com](http://www.santecfaucet.com) within 30 days of purchase. Santec reserves the right to request additional documents before servicing warranty requests.

SANTEC has the right to make necessary design changes where applicable.

\*Illustration may not depict actual products

# Parts Breakdown



#	PART DESCRIPTION	PART #
1	Complete Handle Assembly *	YY-__**
2	Tub/shower Trim Plate *	PH9718
3	Adapter for handle flange	P0477
4	Washer	PM-400
5	Pressure Balanced Tub/Shower Valve	PB-3950
7	Trim Plate Grommet	PM-465
8	Diverter Knob *	P0258
9	Broach Extension	PM-007-1
10	Teflon Washer	PM-020
11	O-Ring	PM-017
12	All Threads	PM-955

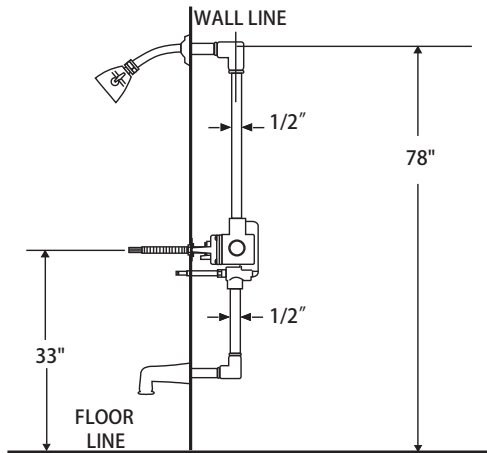
\* Please specify the finish when ordering the part.

\*\* Please specify option code when ordering the part.

# INSTALLATION INSTRUCTIONS

## DESCRIPTION

This product is precision engineered to provide satisfactory performance provided it is installed and operated in accordance with our recommendations contained in this manual. In order to fully enjoy the comfort, safety and the reliability of your pressure balancing valve, be certain to familiarize yourself with the contents of this manual.



## SPECIFICATIONS AND DIMENSIONS

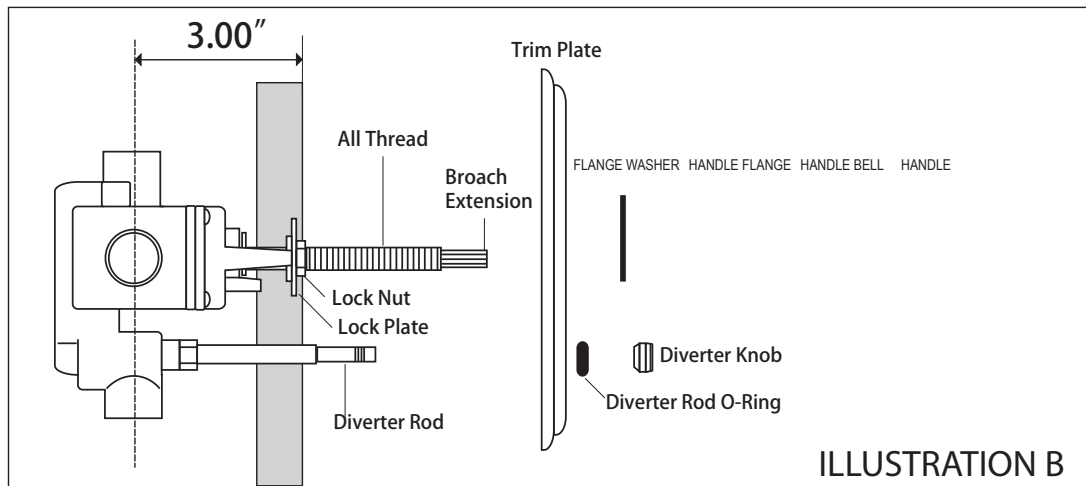
Minimum operating pressure	20 psi
Maximum operating pressure	145 psi
Maximum test pressure	500 psi
Hot and cold water inlets	1/2" IPS
Shower outlet	1/2" IPS
Flow capacity	5 USGPM@ 50 psi
Finished wall adjustment	: see Illustration B

## INSTALLATION

NOTE: Failure to follow these instructions may cause damage or improper operation to the unit and nullify the warranty.

### ROUGH IN

- Make sure the water supply is off.
- Secure the valve firmly against the stud. Make sure the 1/2" 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.
- Tighten firmly the Lock Nut against the Lock Plate.
- Position the valve using the dimension shown in the illustration B.



# INSTALLATION INSTRUCTIONS

## TRIM INSTALLATION

- Place the shower plate on the all thread.
- Screw the handle escutcheon with the Flange washer onto the all thread. Press them firmly against the plate and mark the position.
- Remove the handle trim assembly and all thread and cut off the excess thread.
- Inset the broach extension onto the valve.
- Insert the Handle onto the broach extension. Measure the excess between the handle and the trim plate. Take off the handle and cut the excess stem.
- Reinsert the handle onto the stem.
- 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.

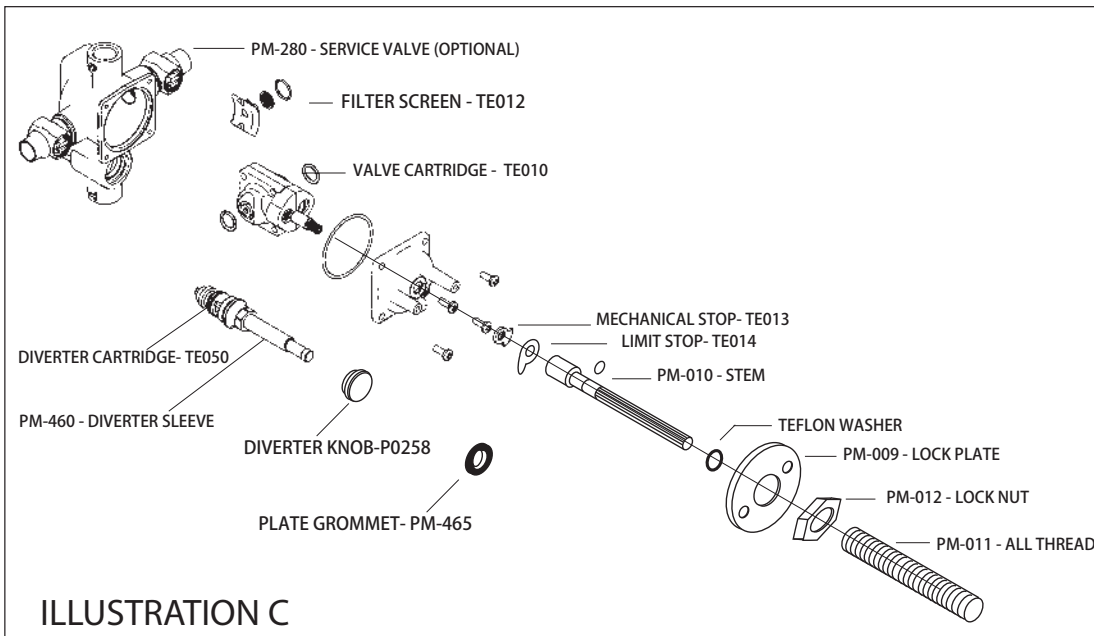
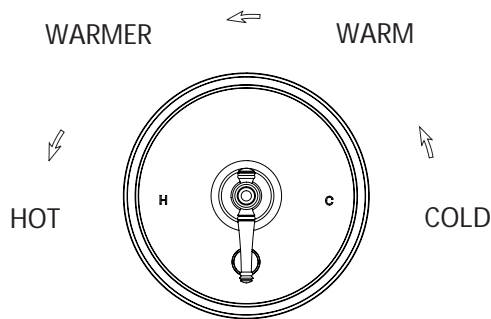
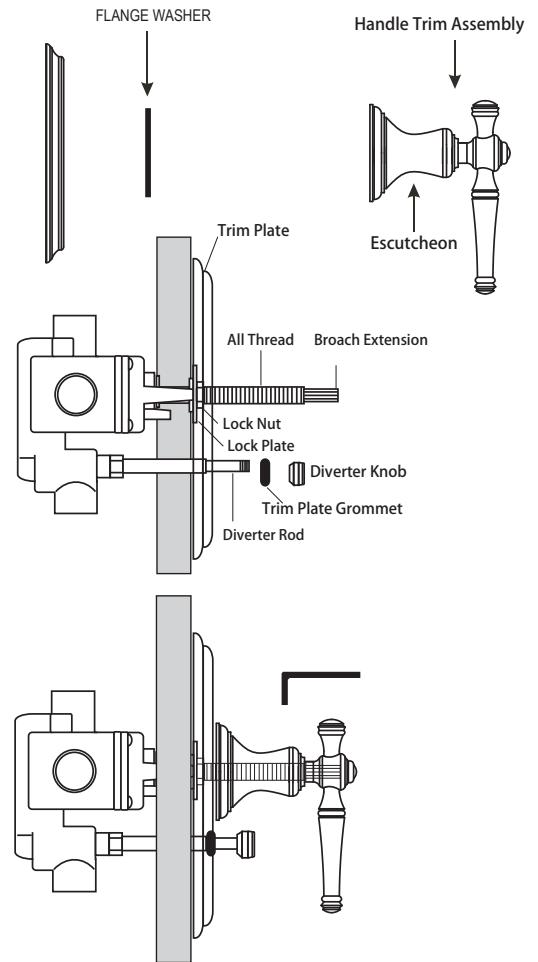


ILLUSTRATION C

# INSTALLATION INSTRUCTIONS

## TEMPERATURE LIMIT STOP SET UP

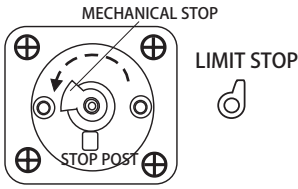


Illustration D1

- Santec Pressure Balanced Valve has a temperature limit stop ( please see Illustration C on page 3 ) which once set properly can provide safe and comfortable hot water.  
Below is the limit stop installation procedure:

- Remove all Handle trim parts, including the trim plate.
- remove all internal parts up to the Limit Stop do not remove the Mechanical Stop see Illustration D1 )

After Mechanical Stop is removed, please follow the instruction bellow

- Turn the cartridge clockwise until it stopps. Do not force to avoid damaging the cartridge.
- Insert the Mechanical Stop onto the cartridge

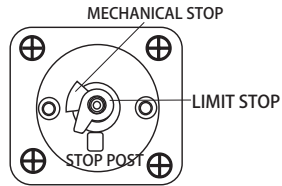


Illustration D2

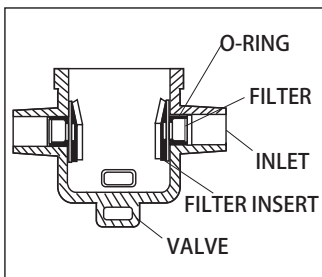
- Turn the cartridge counterclockwise to open the water line. Turn until it reaches the maximum hot water desired by the user.
- Place Limit Stop as shown in the Illustration D2.
- Reinstall all the parts accordingly to the Illustration C.

## TROUBLE SHOOTING

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.**

## FILTER SCREEN REMOVAL AND CLEANING



The valve has filter screens that prevent debris from obstructing the pressure balancing cartridge. If excessive in-line debris accumulates in the filter screen, you will notice a decrease in flow from the valve. PLEASE NOTE - SHUT OFF BOTH HOT AND COLD WATER SUPPLIES BEFORE SERVICING VALVE.

- The filter screen is attached to an insert that is fitted into the valve body inlets.
- With the cartridge removed, the 2 inserts and filter screens can be easily removed from the valve body.
- Remove the insert by pressing the top corner. This will rotate the insert allowing easy removal.
- There is a place on either side of the filter insert where you can get your finger nail underneath the filter screen. By pulling the filter screen away from the insert, it will "pop out".
- All debris can be now be easily removed from the filter screen.
- Replace the filter screen into the insert and push together gently until it clicks into place.
- Place the insert back into the valve body, making sure the angled edge of the insert faces out. The insert should sit flush against the wall of the valve body when properly installed.



## 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. Proof of purchase must be provided for all warranty claims, SANTEC provides the following limited warranties on our product.

### LENGTH OF WARRANTY & WHO IS COVERED BY OUR WARRANTY

This warranty only extends to the original consumer purchaser.

### 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. Custom finishes carry a ten (10) years limited warranty against manufacturing defects and tarnish to the original purchaser only. Kitchen products carry a three (3) year limited warranty.
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 ten (10) year limited warranty against manufacturing defects, to the original purchaser. Kitchen products carry a five (5) year limited warranty.

### EXCLUSIONS AND LIMITATIONS OF WARRANTY

This warranty does not cover:

1. **Drains**
2. **Crystals and/or glass**
3. 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.
4. 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.
5. 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.
6. Commercial and/or Industrial installations and use of the product.
7. 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. Changes in the finish or in the product due to normal wear or aging does not cover any products or parts
8. Access should be provided to the roman tub valves for future service or repair to valves and piping. Under no circumstances will Santec Faucet, Inc. be liable for any costs associated with the removal of materials for future access to the tub valves or piping for service or repair.
- 9.

This warranty does not cover: 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 plumbers putty, damage from tools used during installation, the use or exposure to chemical or cleaning products, abrasive or non-abrasive, or the use of any cleaning tool or product other than a soft, clean cloth. **This warranty does not cover: changes in the finish or in the product due to normal wear or again and does not cover any product or parts which have been altered or used in a manner not typical for the product.** Santec will not be held liable for damage to products caused by the freight carrier, any such claims should be made immediately with the freight carrier. This warranty does not cover any cost involved in the installation, repair, or replacement of any SANTEC product or parts. This warranty does not cover and SANTEC will not be held liable for any loss, damages, or expenses, incidental or consequential whatsoever, originating from the purchase, installation, use, repair, failure, or replacement of any SANTEC product or part, as allowed by law. The product of components of the covered product will either 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.

Effective: 05/01/2015



## FINISH CARE INFORMATION

**WARNING:** Do not clean your SANTEC product with ammonia (window cleaner), bleach, soaps, acids, abrasives, harsh polishes, 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.

**Living finishes are unique, are intended to change over time and are excluded from the finish warranty. Any product outdoors or in a marine environment are excluded from the finish warranty.**

### CLEAR COATED FINISHES

Clear Coated Finishes are as Follows:

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. Santec Orobrass kitchen products are clear coated. 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.