

Safetymix Visu-Temp Operation and Maintenance Manual



Warranty

Limited Lifetime - to the original end purchaser in consumer/residential installations.

10 Years - for commercial/industrial installations. Refer to www.symmons.com/warranty for complete warranty information.



Tools Required:

- Phillips screw driver
- Tubing cutter
- Teflon tape
- Soldering equipment
- Adjustable wrench and channel-lock pliers.

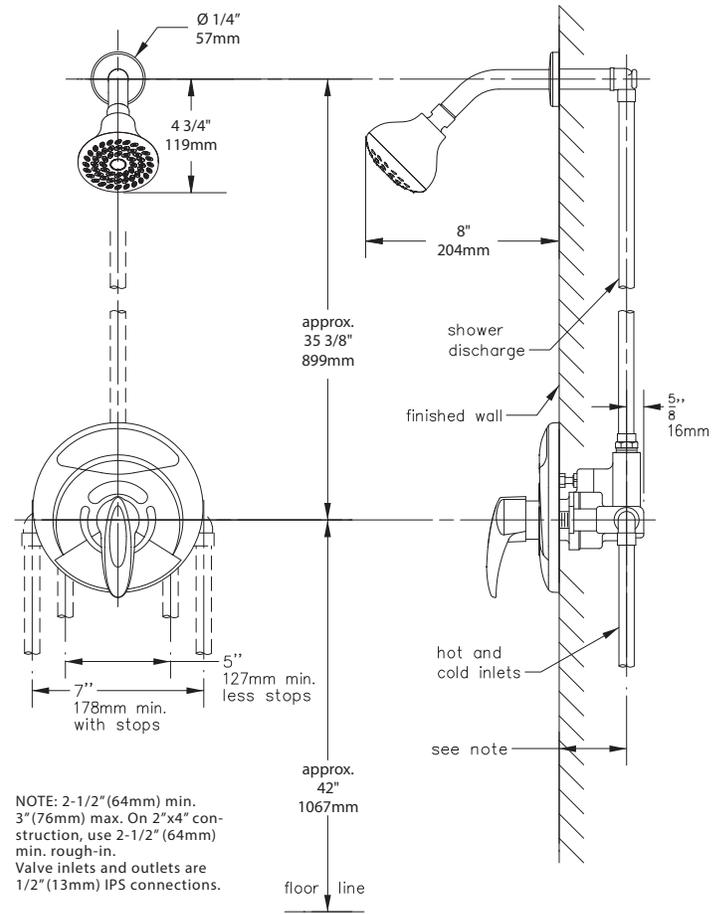
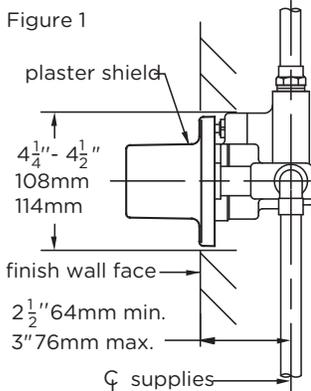
Installation Instructions

Symmons valves, shower heads and hand sprays comply to all known standards, codes and specifications: CSA B-125, ANSI A-112.18.1M, ASSE 1016, EPA '92 etc. Symmons shower heads and hand sprays are equipped with a 2.0 gpm (7.6 L/min) water and energy saving flow restrictor. This instruction sheet shows rough-in dimensions for Models 4-5000VT(X), 1-1000VT(X) and 1-2100VT(X). See separate drawings enclosed with numbered models for applicable rough-in dimensions.

Installation of Shower System Model 1-1000VT(X) (Figure 2)

Install HOT on left and COLD on right according to valve markings.

1. Install piping and fittings with valve body as shown in Figure 2 or 3. **IMPORTANT:** Valve rough-in is 2-1/2" (64mm) min. — 3" (76mm) max. from CENTERLINE OF SUPPLIES TO FACE OF FINISH WALL. Install so that surface indicated on plaster shield on valve is flush with finish wall as shown in Figure 1.
2. When finishing tile wall REMOVE (pull off; don't turn) ENTIRE PROTECTIVE PLASTER SHIELD and FILL AREA AROUND VALVE BODY WITH GROUT OR PLASTER. DO NOT PLASTER OVER SC-2 CAP OR SERVICE STOPS IF SO EQUIPPED.
3. Turn on hot and cold supplies, valve will not operate unless both hot and cold water are turned on.
4. This valve is equipped with a limit stop screw to be used to limit valve handle from being turned to excessively hot water discharge temperatures. To adjust, remove dome cover (SC-13/18), place handle (VT-112) on stem, open valve to maximum desired temperature and turn in limit stop screw (SC-26) until it seats. **WARNING:** Failure to adjust the limit stop screw properly may result in serious scalding. **WARNING:** This shower system may not protect the user from scalding when there is a failure of other temperature controlling devices elsewhere in the plumbing system.



5. Check packing nut (SC-7) for positive frictional resistance to handle turn throughout adjustment cycle and at shut-off position, tighten if necessary. Check valve cap (SC-2), packing nut and all valve, pipe and fitting connections for leaks. Reattach dome cover back onto packing nut.
6. Be sure that Step 2 has been completed properly and finish wall is in place before proceeding. Slide escutcheon assembly (VT-105) over dome cover (SC-13/18) already on valve body. Carefully align thermometer probe with hole in valve body and gently push escutcheon against wall. Secure escutcheon to valve body with two escutcheon screws (WO-20A). Mount control handle (VT-112) on valve stem. Check handle alignment. Tighten handle screw (SC-15A) to mesh slot in valve stem. Snap On/Off indicator (VT-104) into slot in escutcheon concealing escutcheon screws.
7. Install shower arm, flange and shower head. See figures 2 and 3. Install tub spout (1-2100VT only). Use putty or sealant on back edge of spout to make proper seal with finish wall.
8. **ALLOW VALVE TO RUN IN WARM POSITION FOR A FEW MINUTES TO TOTALLY FLUSH SYSTEM. IF SYSTEM IS QUITE DIRTY, REMOVE VALVE SPINDLE OR STOP SPINDLES (IF SO EQUIPPED) TO INSURE PROPER FLUSHING.** See service instructions.
9. Do not install positive shut-off devices on the outlet of this valve or devices that do not allow the valve to flow at least 1 GPM at 50 psi inlet pressure. **EXCEPTION:** If a self-closing or slow-closing valve is installed on the outlet, the supplies of the valve must be equipped with checks to eliminate hot to cold by-pass in the event the valve's handle is not turned to off after use. Contact your factory representative or Symmons directly for information on available checks.

FIBERGLASS WALL INSTALLATION

When installing Visu-Temp in fiberglass or panel walls and it is desired to sandwich wall between valve body and escutcheon, cut hole in wall as shown in Figure 4 and mount valve from rear. **NOTE: IT IS ALWAYS RECOMMENDED TO SECURE VALVE PIPING TO ROUGH CONSTRUCTION AND NOT DEPEND ON FIBERGLASS WALL FOR VALVE MOUNTING SECURITY.** On panel walls over 1" thick, install in conventional manner. (See figure 1).

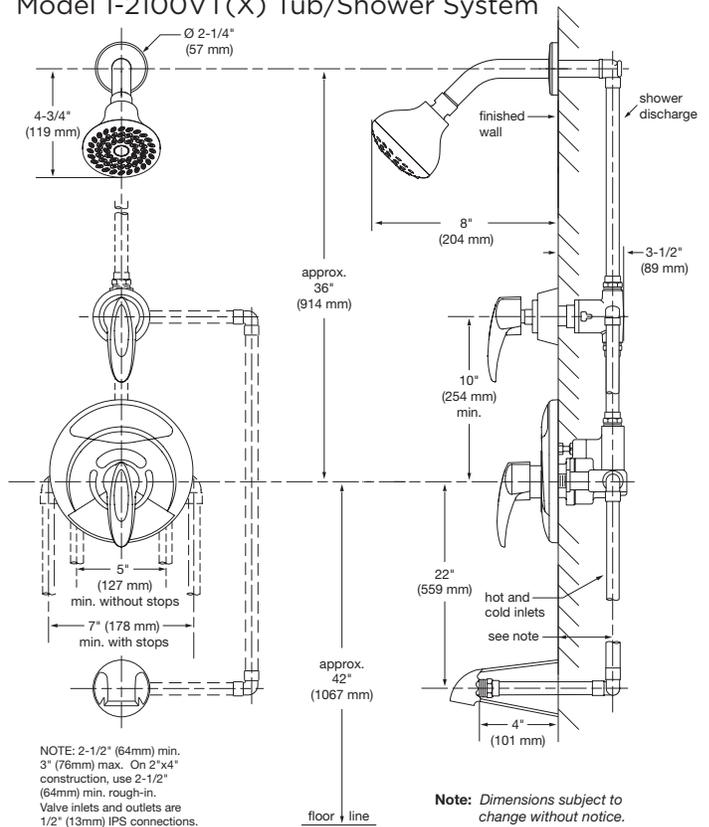
OPERATION OF VALVE

The main handle of the Visu-Temp valve is for control of temperature only. From the OFF position, the handle is turned counter-clockwise through a minimum cold position, through a warm and hot position for a maximum turn of approximately one revolution. This allows for infinite temperature adjustments to suit the requirements of any user.

CARE AND CLEANING

The lustrous finish on your Visu-Temp valve should be treated with care. It can be readily damaged by improper handling or abusive treatment. To clean the finish wipe gently with a soft damp cloth and blot dry with a soft towel. Use only a mild soap solution if required. **DO NOT USE ABRASIVE CLEANERS. USE OF POLISH, ABRASIVE CLEANERS, SOLVENTS OR ACID CLEANERS WILL DAMAGE THE FINISH AND VOID THE SYMMONS WARRANTY.**

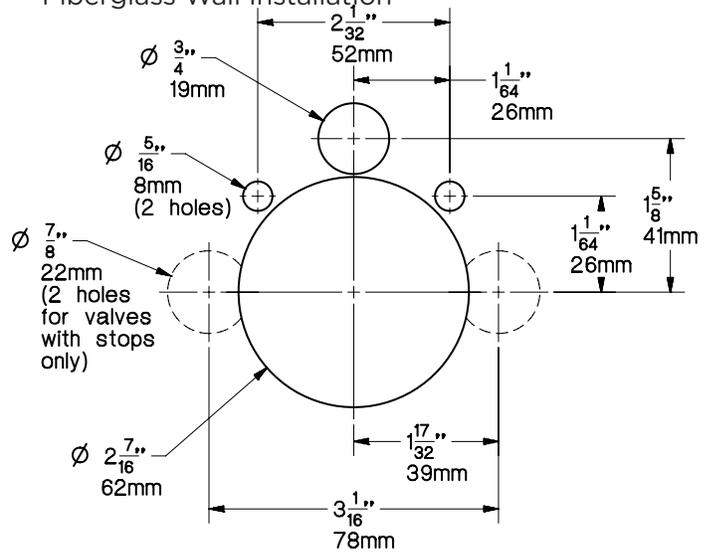
FIGURE 3
Model 1-2100VT(X) Tub/Shower System



Installation of Tub/Shower System Model 1-2100VT(X) (Figure 3)

1. Follow instructions from previous page. Refer to Figure 3.

FIGURE 4
Fiberglass Wall Installation



INDIVIDUAL PARTS

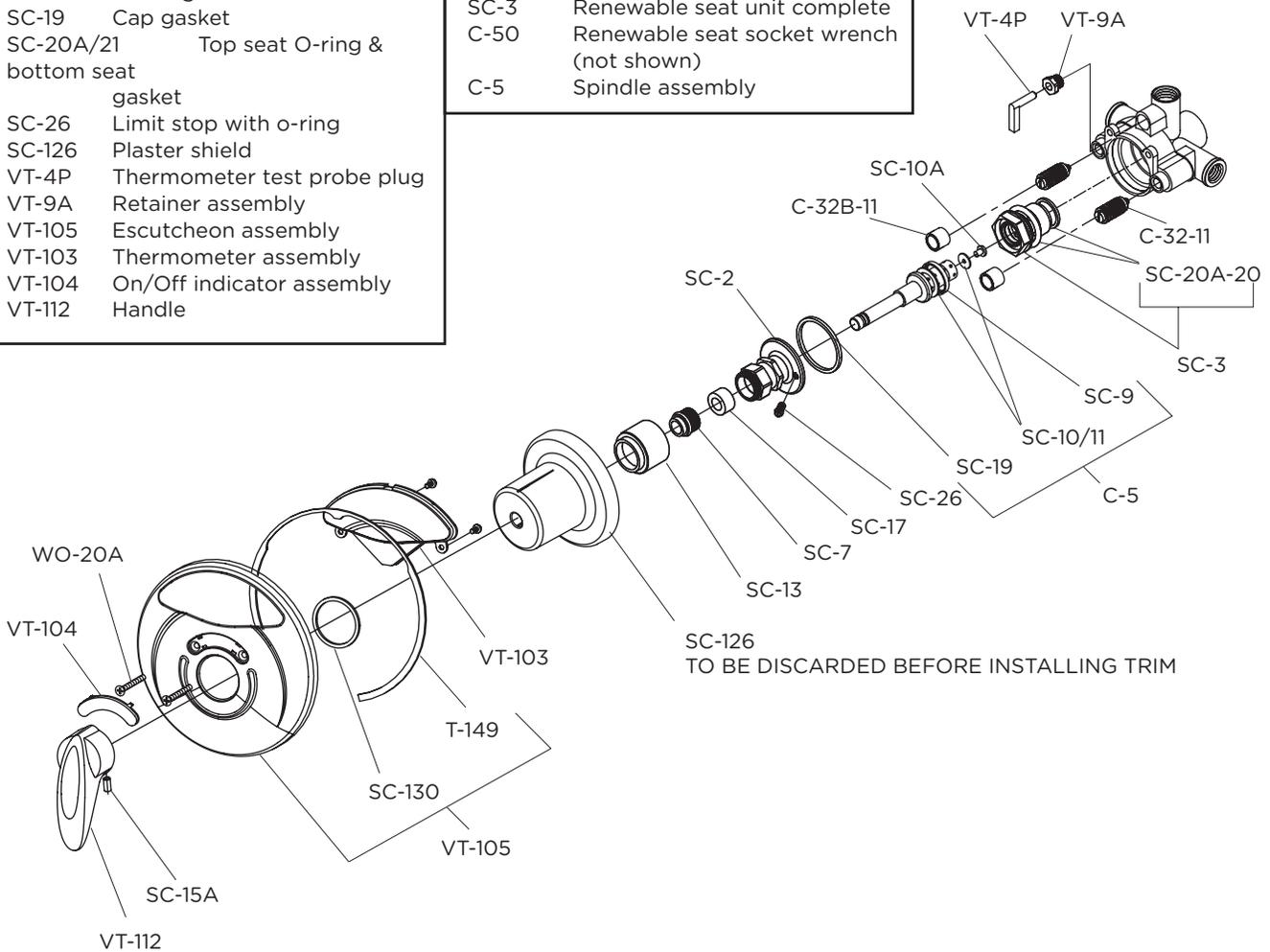
C-5	Spindle assembly
C-32-11	Spindle assembly
C-32B-11	Plaster shield
SC-2	Cap
SC-3	Renewable seat
SC-7	Packing nut with o-rings
SC-9	Cold washer retainer
SC-10A	Hot washer screw
SC-10/11	Hot and cold washers
SC-13/18	Dome cover and lock nut
SC-15A	Handle screw
SC-17	Packing
SC-19	Cap gasket
SC-20A/21	Top seat O-ring & bottom seat gasket
SC-26	Limit stop with o-ring
SC-126	Plaster shield
VT-4P	Thermometer test probe plug
VT-9A	Retainer assembly
VT-105	Escutcheon assembly
VT-103	Thermometer assembly
VT-104	On/Off indicator assembly
VT-112	Handle

COMPOSITE PARTS

WO-20A	Escutcheon screws (2)
Washer & Gasket KIT-B-VT	
SC-9	Cold washer retainer
SC-10A	Hot washer screw
SC-10/11	Hot and cold washers
SC-15	Handle screw
SC-17	Packing
SC-19	Cap Gasket
VT-9A	Retainer assembly
VT-114	Escutcheon gasket

Repair units

SC-3	Renewable seat unit complete
C-50	Renewable seat socket wrench (not shown)
C-5	Spindle assembly



Service Instructions

1. Shut off water supply to valve.
2. Remove handle (VT-112) by loosening handle screw and pull off handle. Unscrew dome cover (SC-13), lift off indicator (VT-104) gently with thin screw driver in slot so as not to break snaps. Unscrew two escutcheon screws and remove escutcheon assembly by sliding toward you being careful not to damage thermometer tube. Place escutcheon face down on soft surface to prevent damage.
3. Open valve to about warm position and unscrew cap (SC-2). **WARNING: FAILURE TO OPEN VALVE WILL DAMAGE CAP AND SPINDLE.** Spindle assembly (C-5) will be removed with cap. Leave packing nut (SC-7) in place while unscrewing cap to avoid distortion.
4. Ordinary service to eliminate dripping or not shutting off requires only the replacement of parts supplied in washer and gasket kit (KIT-B-VT). Hold spindle with valve handle (VT-112) while removing hot washer screw (SC-10A) and cold washer retainer (SC-9) (remove retainer with channel lock pliers). Replace washers reversing step 4.
5. Inspect surfaces of renewable seat (SC-3) and replace if necessary. Clean seat surfaces for proper sealing of top seat o-ring (SC-20A) and bottom seat gasket (SC-21). Use renewable seat socket wrench (C-50). Tighten seat to 15 foot pounds of torque.
6. The perforated end of the (C-5) spindle assembly houses the balancing piston which is the heart of this pressure balancing valve. The piston should be free to move back and forth and should click when the spindle assembly is shaken. If deposits block this action, tap the handle end of the spindle against a solid object to free the piston. Soaking in household vinegar will help free foreign matter. If this does not free piston, replace (C-5) spindle assembly. **DO NOT TAMPER WITH PERFORATED CYLINDER ON THE SPINDLE ASSEMBLY OR ATTEMPT REMOVAL OF THE PISTON.**
7. Reassemble, reversing above procedure, be sure spindle assembly is drawn close to the cap before screwing cap back into valve. **WARNING: FAILURE TO DO THIS WILL DAMAGE CAP AND SPINDLE.**
8. **USE ONLY SYMMONS GENUINE REPAIR PARTS. FAILURE TO DO SO WILL VOID ALL WARRANTIES AND IMPAIR PROPER OPERATION OF YOUR VALVE.**

Product Care Chart

Problem	Cause	Solution (Follow service instructions)
Valve will not pass water.	Hot and cold water not turned on.	Turn on both supplies. Valve will not operate unless both HOT and COLD water pressure is turned on.
Valve leaks when shut off.	Hot and cold washers are worn, or foreign matter (solder, chips, etc.) are between washers and seat surfaces.	Replace Hot and Cold washers, inspect top surface on hot and cold seats and replace if necessary.
Temperature control handle is turned from cold to hot (or hot back to cold) and volume from spout or head is not constant.	Pressure balancing piston housed in spindle assembly is blocked from free movement by foreign matter.	With valve open half way, remove handle and tap spindle with plastic hammer. If problem not solved, remove spindle assembly completely and tap handle end against solid object to free piston. Soaking in household vinegar will help free foreign matter.
Valve delivers sufficient quantity of cold, but little hot, or the reverse of this.	Same as above.	Same as above
Temperature varies without moving handle.	Same as above.	Same as above
Valve delivery temperature reduces gradually during use; handle must be turned on to hotter positions to maintain constant temperature.	Overdraw on hot water supply, i.e., running out of hot water.	Reduce maximum flow by using volume control adjustment on valve or shower head. This will allow longer period of use before overdrawing hot water supply.

⚠ WARNING: This product can expose you to chemicals including lead, which is known to the state of California to cause cancer, birth defects, or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.