

Multi-Fount Washfountains Terreon[®] Models

Parts & Service Guide

Discontinued Models Prior to June 13, 2005

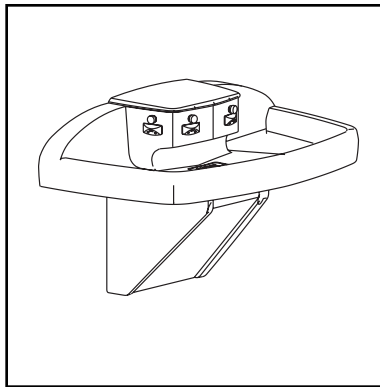
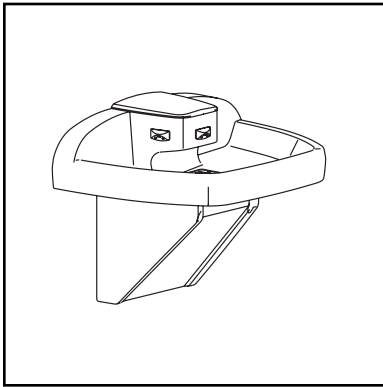




Table of Contents

	Page #
Washfountain Identification	
Identification Chart and Model Numbers	3
Terreon® Multi-Fount Washfountains	
Infrared (IR) — Valve and Sprayhead Assembly (Rear View)	4
Infrared (IR) — Sprayhead (24V plug-in transformer)	5
Infrared (IR) — Valves (24V plug-in transformer)	6
Infrared (IR)— Sensor and Valve Troubleshooting	7
Air Metering Valve (AST) — Assembly	8-9
AST & IR Supply and Mixing Valve — Floor and Wall Mounted	10-11
Battery Infrared (BIR) — Sprayhead	12-13
Battery Infrared (BIR) — Valves	14
Battery Infrared (BIR) — Battery Installation	14
Battery Infrared (BIR) — Supply	15
Mixing Valve — Vernatherm® — Thermostatic S01-116B Complete Valve	16
Soap System	17-18
Floor Pedestal — Assembly	19
Terreon Care and Maintenance	20

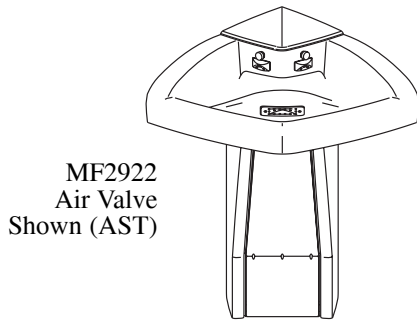
Part numbers are subject to change without formal notice.



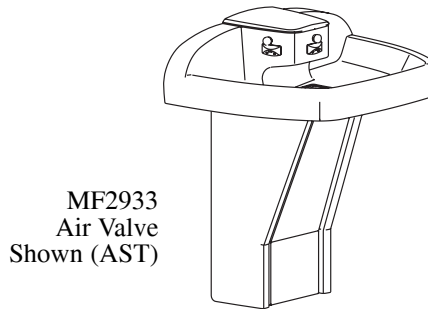
Terreon® Multi-Fount Washfountains

- Unique, Repairable, Solid Surface Material
- Highly Vandal Resistant
- Saves Water, Energy, and Space
- Available with Air Metering, Infrared or Battery Operated SensorScan® Infrared Control

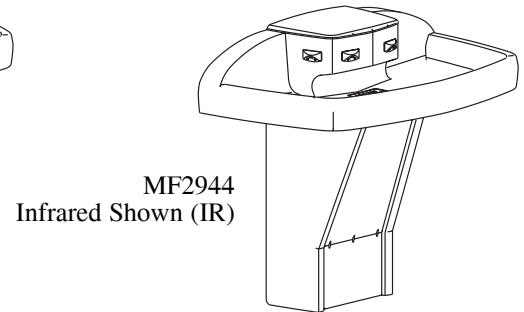
Models Available:	
MF2922	Terreon Corner-Fount
MF2933	Terreon Tri-Fount
MF2939	Terreon Tri-Fount Wall Hung
MF2944	Terreon Quadra-Fount
MF2949	Terreon Quadra-Fount Wall Hung



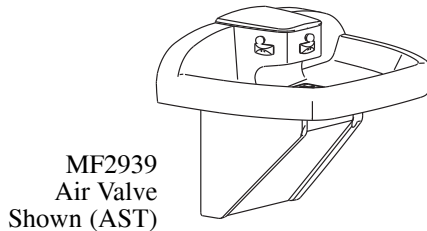
MF2922
Air Valve
Shown (AST)



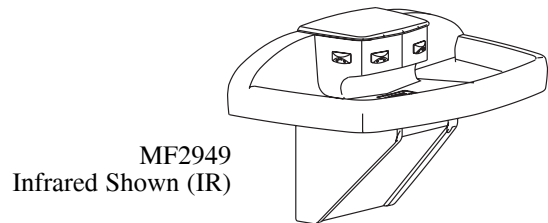
MF2933
Air Valve
Shown (AST)



MF2944
Infrared Shown (IR)



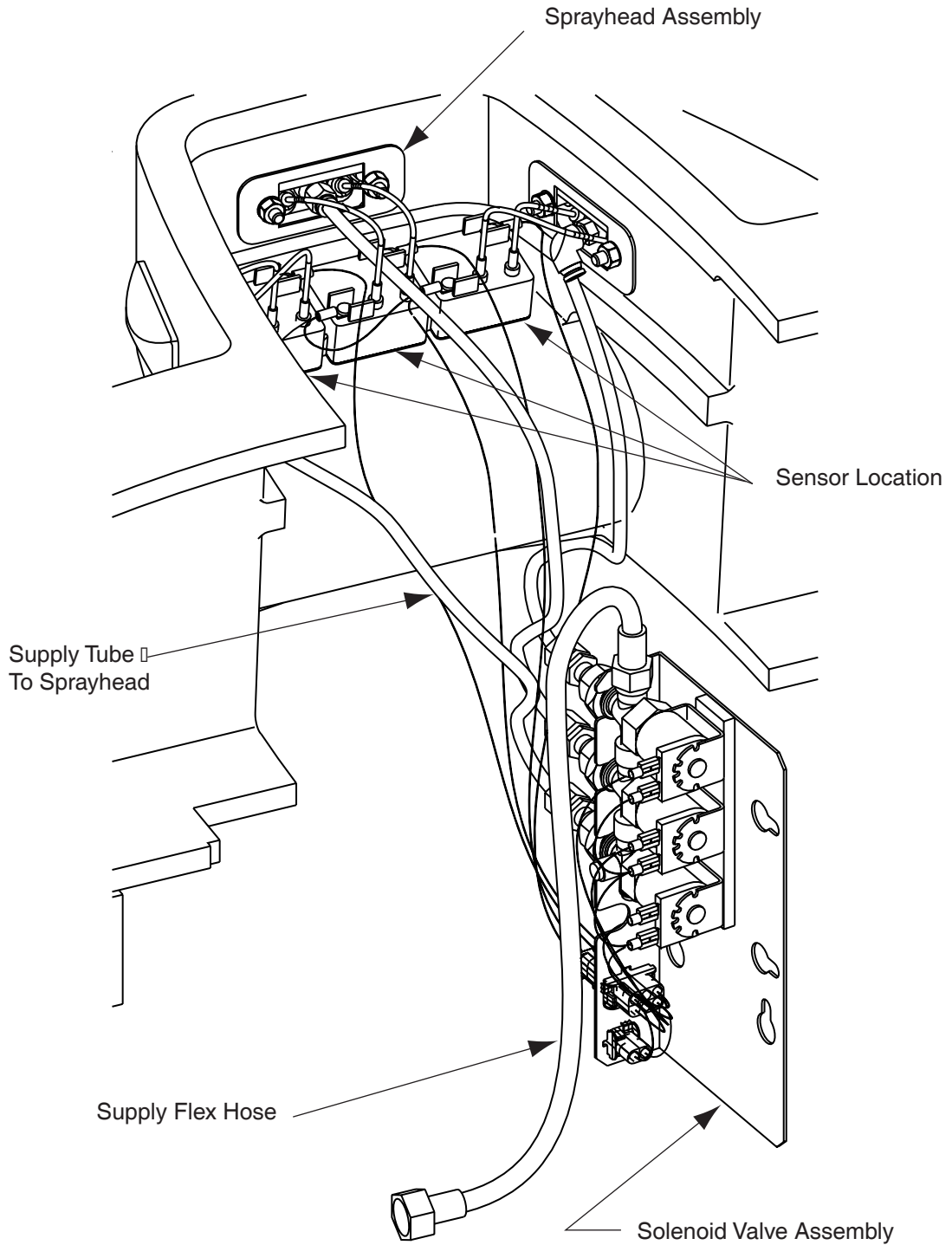
MF2939
Air Valve
Shown (AST)



MF2949
Infrared Shown (IR)



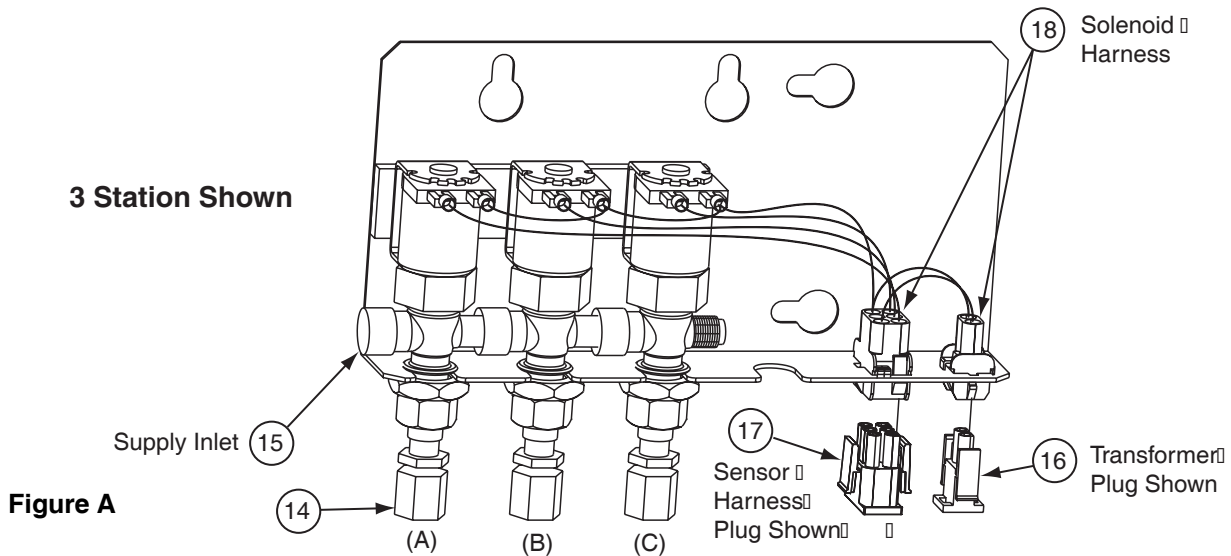
Infrared (IR) — Valve and Sprayhead Assembly (Rear View)



Detailed breakdowns on following pages.



Infrared (IR) — Valves (24V Plug-in Transformer)



Parts List — Solenoid Assembly and Valve Parts

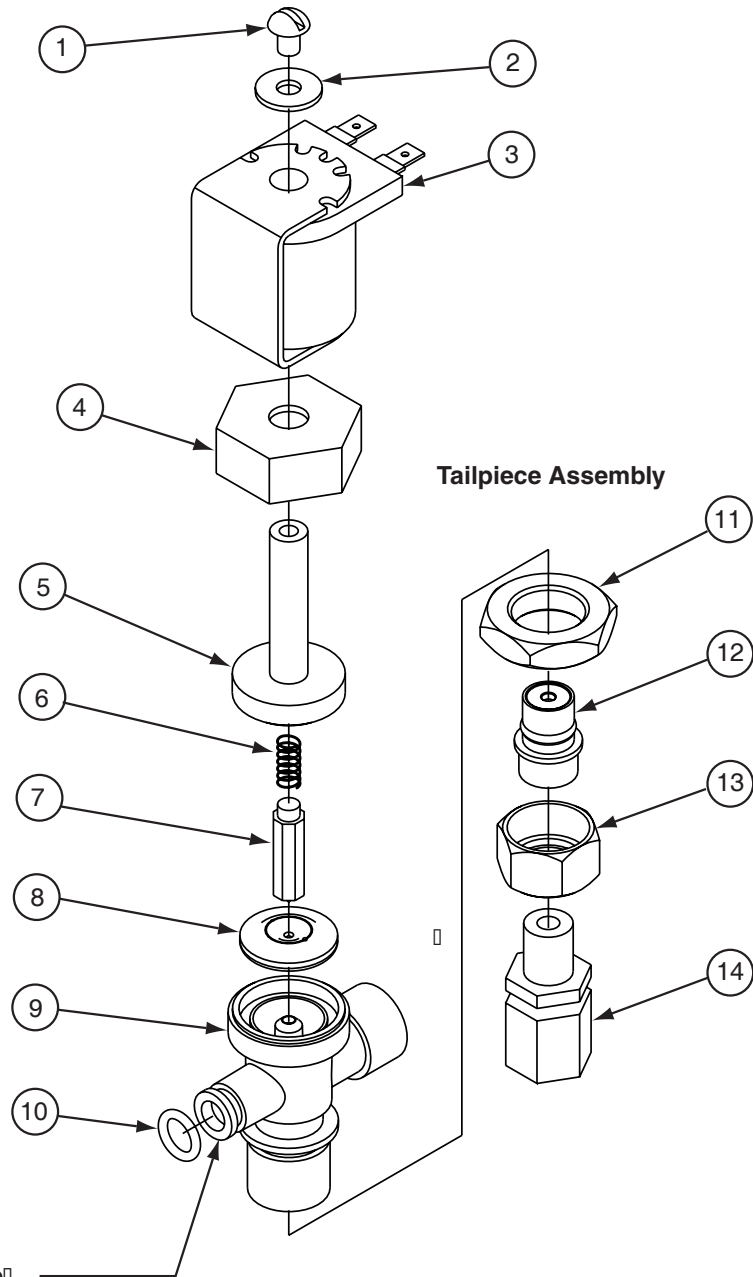
Shown on next page.

Item	Part No.	Description	Corner	Tri	Quad
			Qty	Qty	Qty
*	S08-088	2 Valve Assy. With Bracket	1	—	—
Fig. A	S08-344	3 Valve Assy. with Bracket	—	1	—
*	S08-345	4 Valve Assy. with Bracket	—	—	1
Fig. B	S07-040	Valve Individual (Includes Items 1-9)	1	1	1
Fig. B	S07-041	Valve Ganged (Includes Items 1-10)	1	2	3
1	160-066	Screw 10-24 x 1/4 RD	2	3	4
2	142-002AZ	Washer Stainless Steel	2	3	4
3	269-579	Coil - Solenoid Valve	2	3	4
4	110-194	Nut - Bonnet	2	3	4
5	121-028	Bonnet	2	3	4
6	269-578	Spring	2	3	4
7	269-577	Armature	2	3	4
8	269-580	Diaphragm	2	3	4
9	118-237	Valve Body Individual (C)	1	1	1
9	118-238	Valve Body Ganged (A & B)	1	2	3
10	125-145	O-Ring (for ganged valve body)	1	2	3
11	110-224	Nut	2	3	4
12	S88-065	Tailpiece Assembly	2	3	4
13	110-195	Tailpiece Nut	2	3	4
14	145-089	Connector	2	3	4
*15	269-1365	Hose (Supply Inlet)	1	1	1
*16	S83-152	Transformer 24VAC (269-901 no terminals)	1	1	1
*17	S83-145A	Wire Harness 2 solenoid	1	—	—
*17	S83-144	Wire Harness 3 solenoid	—	1	—
*17	S83-144B	Wire Harness 4 solenoid	—	—	1
*18	S83-144A	Wire Harness 2 sensor	1	—	—
*18	S83-145	Wire Harness 3 sensor	—	1	—
*18	S83-145B	Wire Harness 4 sensor	—	—	1

* Not Illustrated.



Infrared (IR) — Valves (24V Plug-in Transformer)Continued Solenoid Valve S07-040 Individual (End), S07-041 Ganged



* Note: Solenoid valve S07-041 for "Ganged" applications is identical to the S07-040 "Individual" (End - opposite supply inlet) valve. Except this end has an O-Ring (Item 10) for sealing and the inner wall has been removed to permit water to flow through to adjacent valve.

Figure B



Infrared (IR) — Sensor and Valve Troubleshooting

If a station is not functioning properly it is most likely either the solenoid valve or the sensor.

Troubleshooting multi station units is fairly easy, as you can swap parts (actually just by changing the wires) and use the process of elimination to figure out which of the 2 parts is causing the problem.

How the system operates:

1. The transformer sends 24 volts to the sensor.
2. The sensor acts only as a switch.
3. When hands go into the active field of the sensor, the sensor activates and sends a power signal on to the solenoid valve.
4. The power signal activates and opens the solenoid valve which allows the water to flow to the sprayhead. The solenoid valve stays open allowing water to flow as long as it is receiving a signal from the sensor (hands remain in the active field).
5. When hands are removed from the active field, the sensor turns off (note some models have a slight delay feature built-in.) and shuts off the power signal to the solenoid valve.

Note: *The solenoid valves will be in-line and will be in the same order as the stations (in other words the center solenoid will operate the center station, the right solenoid will operate the right station).*

Complaint: The center station (B) will not shut off.

1. Disconnect the sensor wires to the center solenoid valve (B) and set them out of the way.
2. Disconnect the sensor wires to the left solenoid valve (A). Set these wires out of way and make sure they will not make contact with each other or any metal or framework.
3. Connect the wires from the center solenoid valve (B) and connect them to the left solenoid valve (A).
4. Reconnect the transformer to the wall outlet for power. Be sure to wait 2 minutes before trying to activate the sensor after disconnecting power, as the sensor has to reset and adapt to the environment.
5. Use your hands to activate the center station (B) and watch for the water to come out at the left station (A).

Conclusion:

If the left station works and shuts off, then we know that the **solenoid is the problem** in the center station.

If the left station does not shut off, then we know it is the **sensor** in the center station that is causing **the problem**.

Solution:

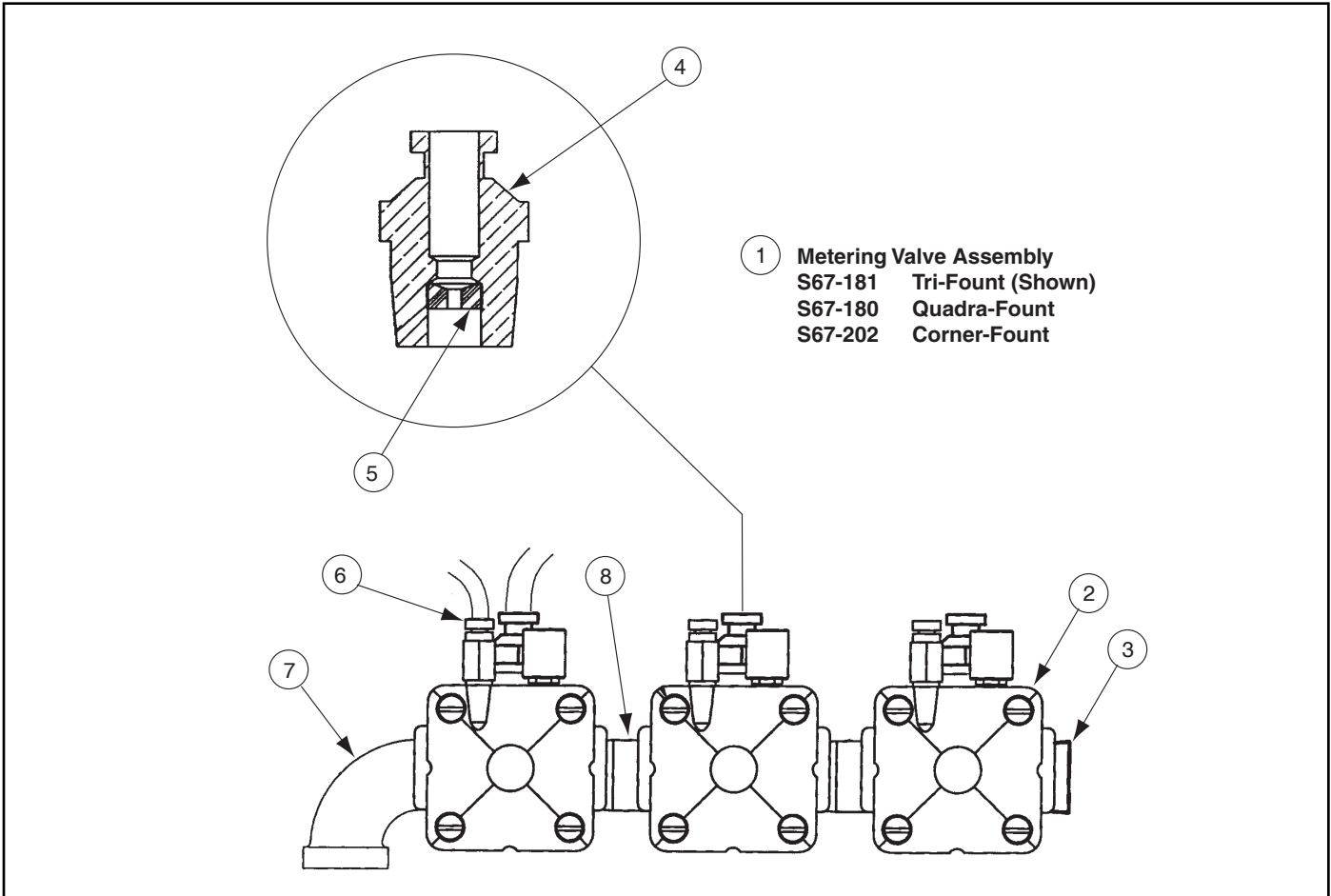
If the Sensor is the Problem it will have to be replaced. It cannot be repaired or adjusted in any way.

If the Solenoid Valve is the Problem it is most likely due to debris between the valve seat and diaphragm. This happens frequently in new and recent plumbing installations.

Take the solenoid valve apart and clean. Disconnect the wires from the solenoid. Loosen and remove the screw on top of the coil of the solenoid valve. Unscrew the bonnet nut (counterclockwise) and tip forward to remove from the valve body. Remove the diaphragm (269-580). Remove any particles that may have been trapped between the diaphragm and the valve seat. Rinse off the diaphragm and inspect for damage. Make sure both orifices in the diaphragm are open. Reassemble and retry the solenoid valve. If there is still a problem, replace the solenoid valve. If ordering replacement solenoid valves, be careful to order correctly, either an "individual" or a "ganged" solenoid valve.



Air Metering Valve (AST) — Assembly

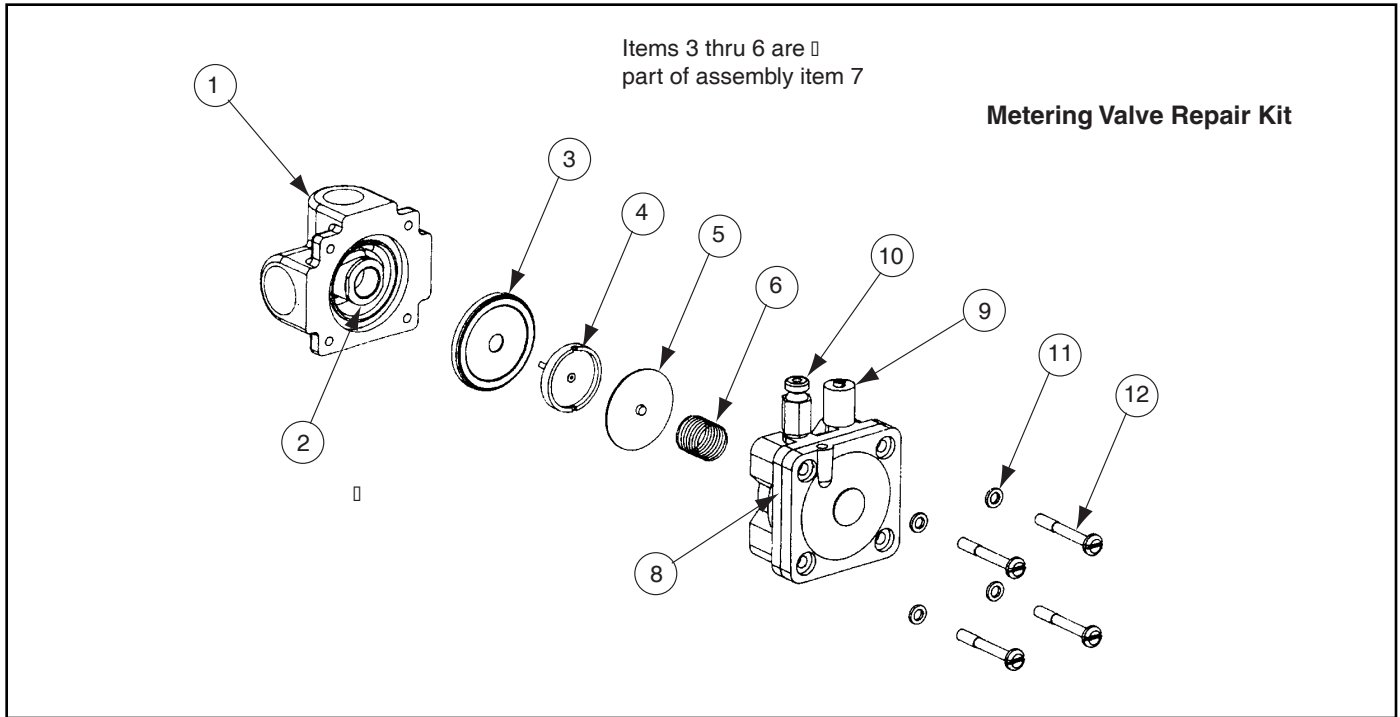


Parts List — Air Metering Valve Assembly

Item	Part No.	Description	Corner	Tri	Quad
			Qty	Qty	Qty
1	S67-202	Metering Valve Assy. Corner-Fount	1	—	—
1	S67-181	Metering Valve Assy. Tri-Fount	—	1	—
1	S67-180	Metering Valve Assy. Quad-Fount	—	—	1
2	S07-058	Air Valve (Detail on following page)	2	3	4
3	169-168	Pipe Plug 1/2"	1	1	1
4	S45-1967	Tube Connector 1/4" x 3/8" w/ Flow Control	2	3	4
5	125-020	Flow Control	2	3	4
6	169-890	Tube Connector 1/8" straight	2	3	4
7	169-639	Elbow 90° 1/2"	1	1	1
8	113-006DH	Nipple 1/2"	1	2	3



Air Metering Valve (AST) — Assembly....Continued

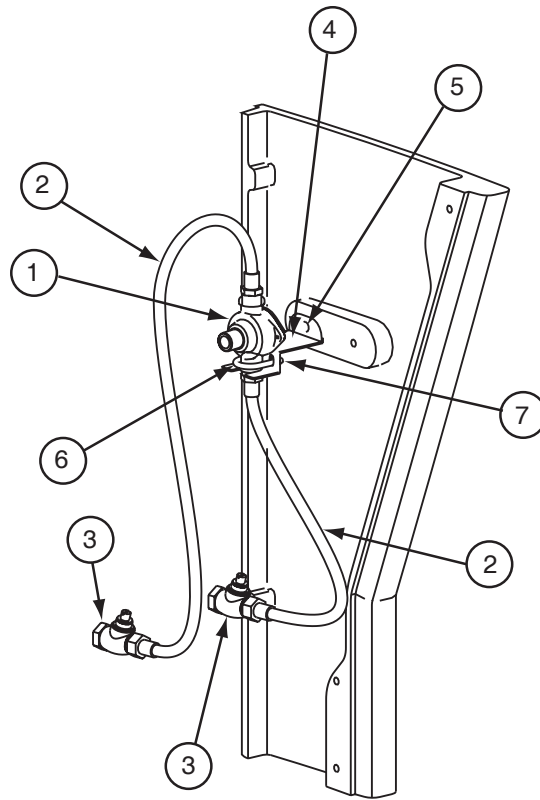


Parts List — Air Metering Valve S07-058

Item	Part No.	Qty	Description
1	118-183	1	Valve Body lower
2	117-036	1	Valve Seat
3	269-665	1	Rubber Diaphragm
4	269-664	1	Seat Guide
5	179-082	1	Armature w/ Grommet
6	135-053	1	Spring
7	S65-110	1	Small Parts Kit (Includes items 3 thru 6)
8	S73-054A	1	Large Parts Kit (Includes items 7 thru 12) (Includes Small Parts Kit)
9	S27-254	1	Timer Assy.
10	169-890	1	Tube Connector 1/8" straight
11	142-002CR	4	Lockwasher #8
12	160-313	4	Screw



AST & IR Supply and Mixing Valve — Floor and Wall Mounted



Floor Mount

Parts List — Supply Thermostatic Mixing Valve

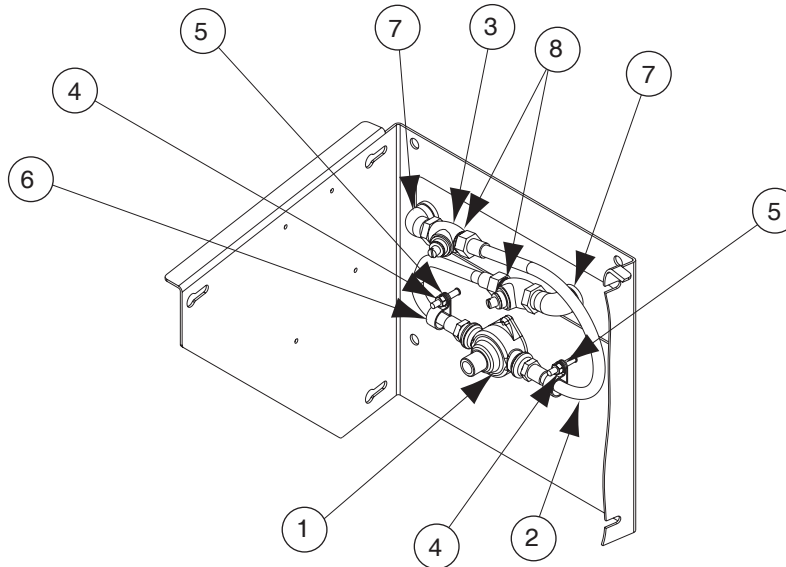
Item	Part No.	Description	Corner	Tri	Quad
			Qty	Qty	Qty
1	S01-116B	Thermostatic Mixing Valve - Vernatherm	1	1	1
2	269-653	Flex Hose ½" NPT x 24" (Supply to TMV)	2	2	2
3	S27-102	Check Stop (use with TMV)	2	2	2
4	140-889	Bracket TMV	1	1	1
5	160-169	Screw	1	1	1
6	269-1248	U-Bolt	1	1	1
7	161-026	Nut (For U-Bolt)	2	2	2
*8	269-1188	Filter - Washer	2	2	2

* Not Illustrated.



AST & IR Supply and Mixing Valve — Floor and Wall Mounted

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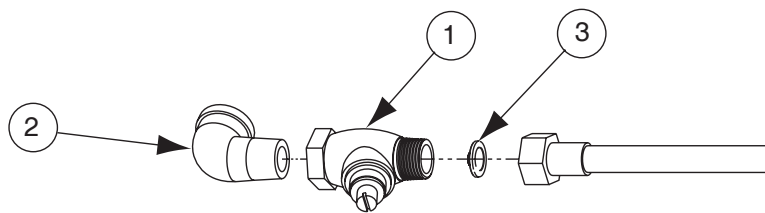


Wall Mount

Parts List — Supply

Item	Part No.	Description * Not Illustrated.	Corner	Tri	Quad
			Qty	Qty	Qty
1	S01-116B	Thermostatic Mixing Valve - Vernatherm	1	1	1
2	269-653	Flex Hose ½" NPT x 24" (Supply to TMV)	2	2	2
3	S27-102	Check Stop (use with TMV)	2	2	2
4	161-026	Nut ¼-20 Hex (Wall Hung Units)	2	2	2
5	142-002AV	Washer (Wall Hung Units)	2	2	2
6	269-1129	Pipe Clamp (Wall Hung Units)	2	2	2
7	169-639	Street Elbow (Wall Hung Units)	5	2	2
*8	269-1188	Filter - Washer	2	2	2

* Not Illustrated.



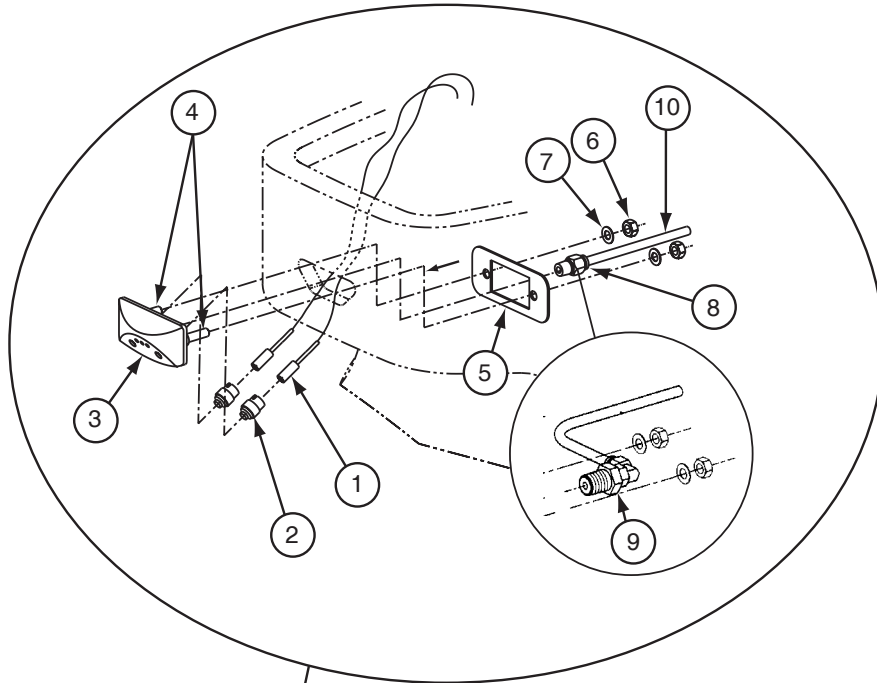
Supply Tempered Line

Parts List — Supply Tempered Line

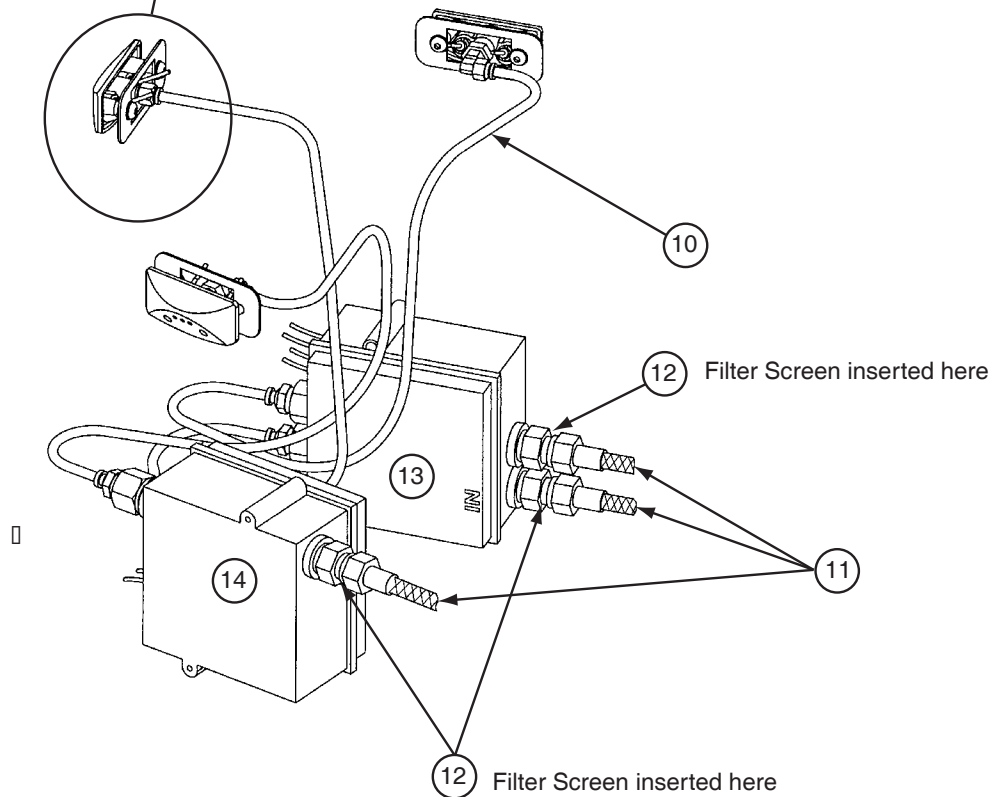
Item	Part No.	Description	Corner	Tri	Quad
			Qty	Qty	Qty
1	S27-102	Check Stop	1	1	1
2	169-639	Fitting 90°	1	1	1
3	269-1188	Washer - Filter	1	1	1



Battery Infrared (BIR) — Sprayhead



Tri-Fount Shown





Battery Infrared (BIR) — Sprayhead....Continued

Parts List — Battery Infrared Sensor, Sprayhead and Valves

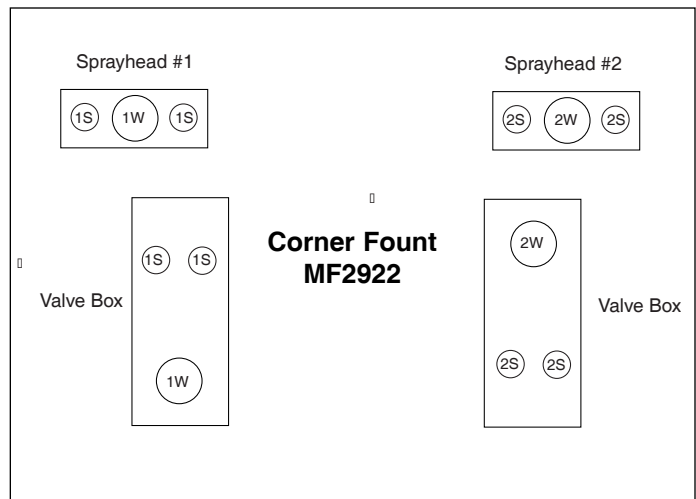
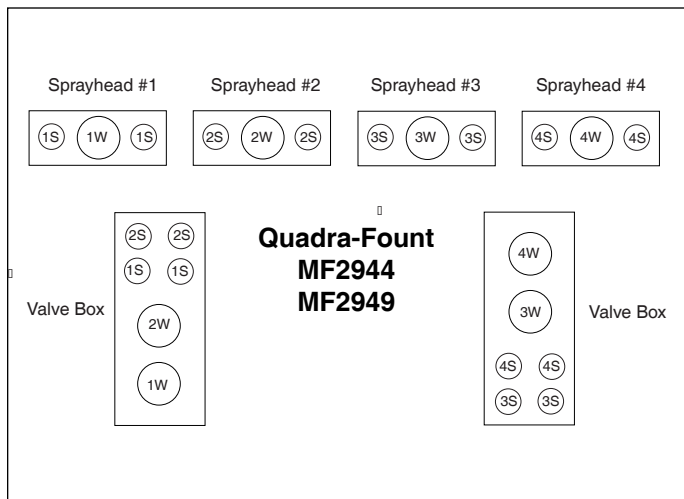
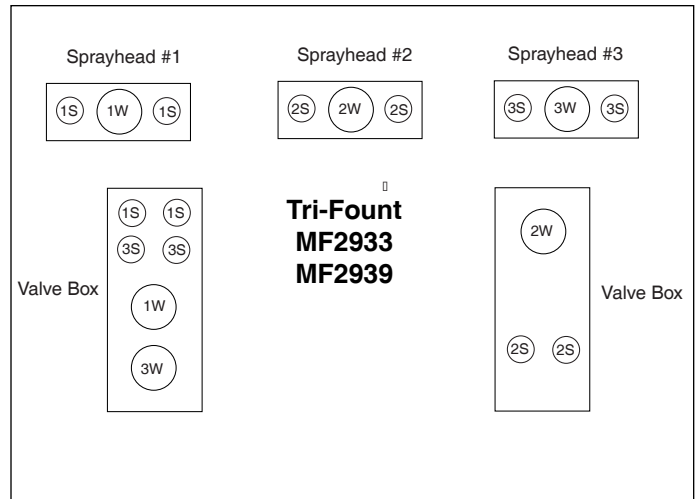
Item	Part No.	Description	Corner	Tri	Quad
			Qty	Qty	Qty
1	—	Sensor Eye Leads (Included in Items 13-14)	—	—	—
2	269-1190	Window	4	6	8
3	115-131	Sprayhead	2	3	4
4	176-119	Threaded Rod	4	6	8
5	140-748	Backplate	2	3	4
6	161-026	Nut	4	6	8
7	142-002BS	Lockwasher	4	6	8
8	269-871	Fitting Straight (front sprayhead)	—	1	2
9	269-628	Fitting Swivel 90° (side sprayheads)	2	2	2
10	R68-600011	Tubing 1/4" (Specify Length in feet)	—	—	—
11	269-1365	Hose Flex 1/2" (manifold to valve box)	2	3	4
12	S65-141	Filter Screen (inlet hoses)	2	3	4
13	S67-218	Valve (Sensor) Box 2 Station	1	1	2
14	S67-219	Valve (Sensor) Box 1 Station	—	1	—

* Not Illustrated.

Valve Box and Sprayhead Connections

These drawings show the supply connections and sensor cable placement for the Multi-Founts. The view is from in front of the fixture facing the wall. The numbers indicate which sprayhead the sensor cables or supply connections operate. The letters indicate the following:

- S = Sensor cable from the valve box to the sprayhead window.
- W = Water supply connection from the valve box to the sprayhead.





Battery Infrared (BIR) — Valves

Installing the batteries

1. Remove the 4 phillips head screws from the valve box cover (see Figure D).
2. Install (12) "AA" Alkaline Batteries (not included).



IMPORTANT: Wait for 5 seconds before testing the unit (allows sensors to adapt to site conditions).

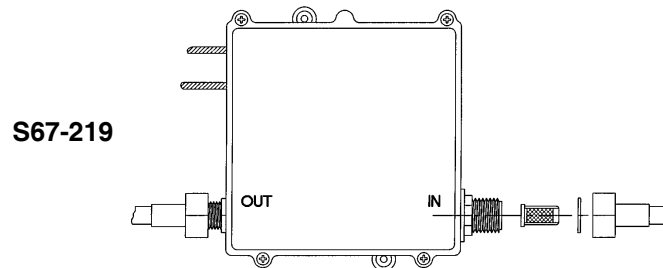
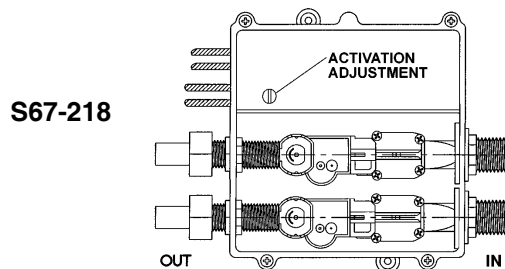
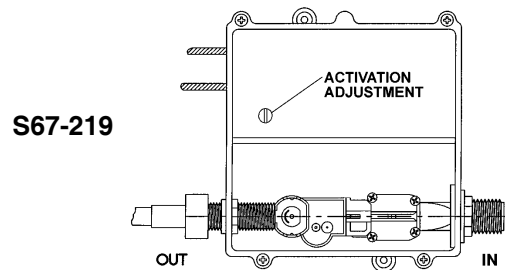
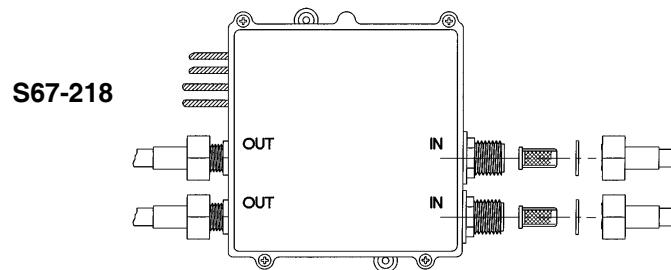
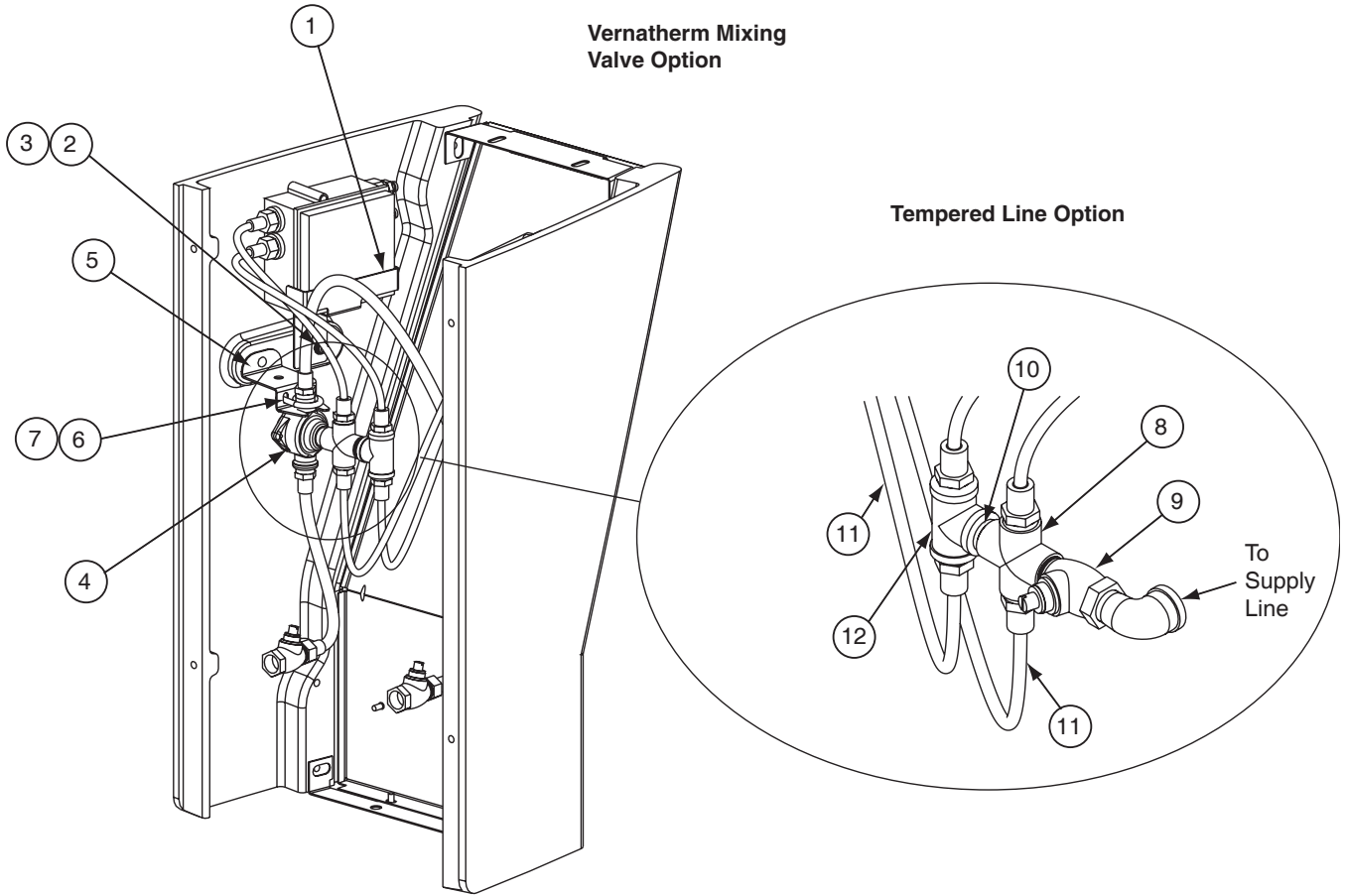


Figure D





Battery Infrared (BIR) — Supply



Parts List — Supply

Item	Part No.	Description	Corner	Tri	Quad
			Qty	Qty	Qty
1	S45-1968	Bracket (pre-pack) (140-912)	1	1	1
1	S45-1969	Bracket (pre-pack) (140-913 Wall Hung)	—	1	1
2	160-389	Screw 1/4-20	2	2	2
3	142-002BK	Lockwasher 5/16	2	2	2
4	S01-116B	Thermostatic Mixing Valve - Vernatherm	1	1	1
5	140-889	Vernatherm Bracket	1	1	1
6	269-1248	U-Bolt	1	1	1
7	161-026	Nut 1/4	2	2	2
8	269-1585	Cross	—	1	1
9	S27-102	Check/Stop/Valve (Tempered Line only)	1	1	1
10	113-006DH	Close Nipple 1/2"	—	—	1
11	269-653	1/2" Flex Hose (Manifold to valve box)	2	3	4
12	269-1150	Tee	1	—	1

* Not Illustrated.



Mixing Valve — Vernatherm® — Thermostatic S01-116B Complete Valve

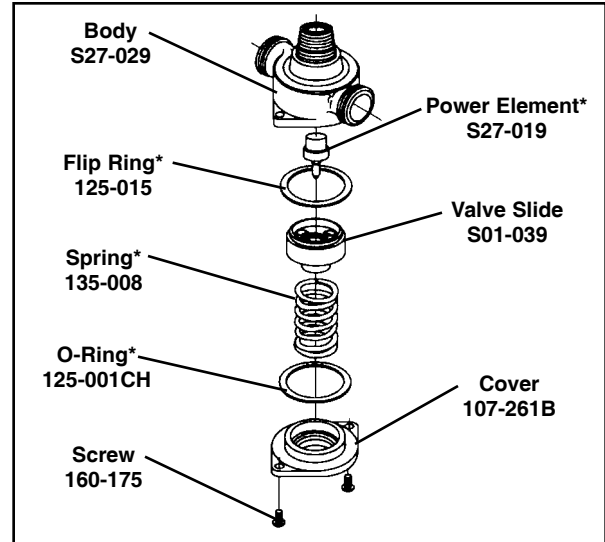
*Repair kit S45-049 is pre-packaged and includes O-Ring, Flip Ring, Power Element and Spring.

Maintenance Instructions

1. Disassemble the Vernatherm™ Valve as shown, being careful not to damage the power element. Replace the element, if necessary.
2. If necessary, remove the old flip ring and replace with a new ring.

NOTE: An old or worn flip ring may cause temperature fluctuation and/or water chatter.

3. Reassemble the power element and valve body. Apply grease to the main valve slide and gently ease into position, rotating so that grease is applied to the flip ring. Do not force the slide as this may push the flip ring from its position. To test, rotate the slide; a slight drag should be felt when correctly installed.
4. Reassemble the valve.



Service Suggestions

When servicing the Vernatherm™ valve, make sure it is installed in the correct position. The most common error that occurs is when the valve is installed in the reversed position, that is, the hot line is connected to the cold line and the cold is connected to the hot.

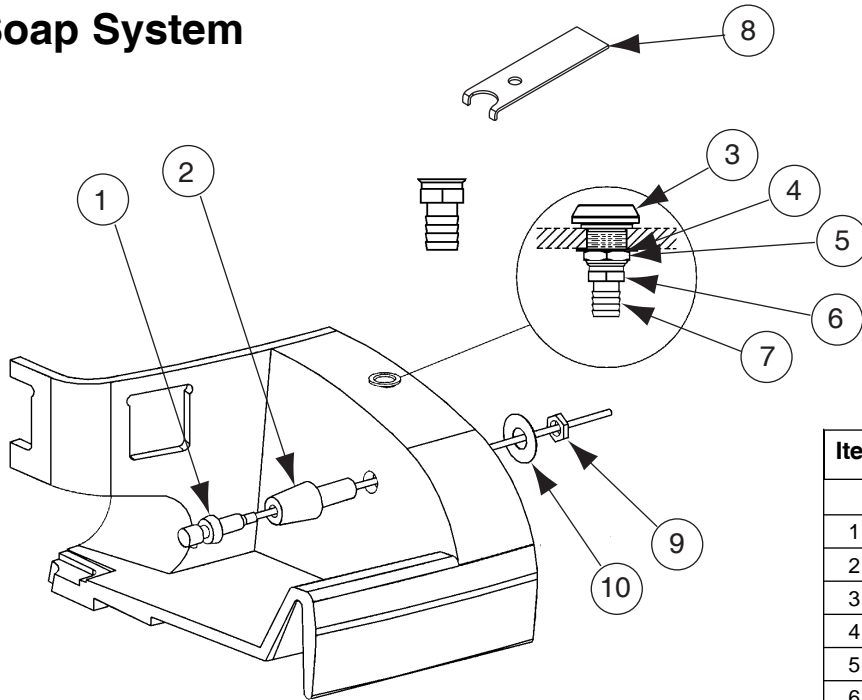
NOTE: A red ring is painted on the hot side of the valve.

The table below lists conditions that occur when the valve is installed correctly, and when it is in the reversed position.

IF			THEN
Valve Position is	Hot Supply	Cold Supply	Valve Delivers
Correct	Hot	Cold	Mixed 107°
Correct	Hot	No Water	Valve shuts off or drips
Correct	No Water	Cold	Valve shuts off or drips
Correct	Hot	Hot	Hot
Correct	Cold	Cold	Cold
Reversed	Hot	Cold	Cold/below 107° Hot/above 107°
Reversed	Hot	No Water	Hot
Reversed	No Water	Cold	Cold
Reversed	Hot	Hot	Hot
Reversed	Cold	Cold	Cold



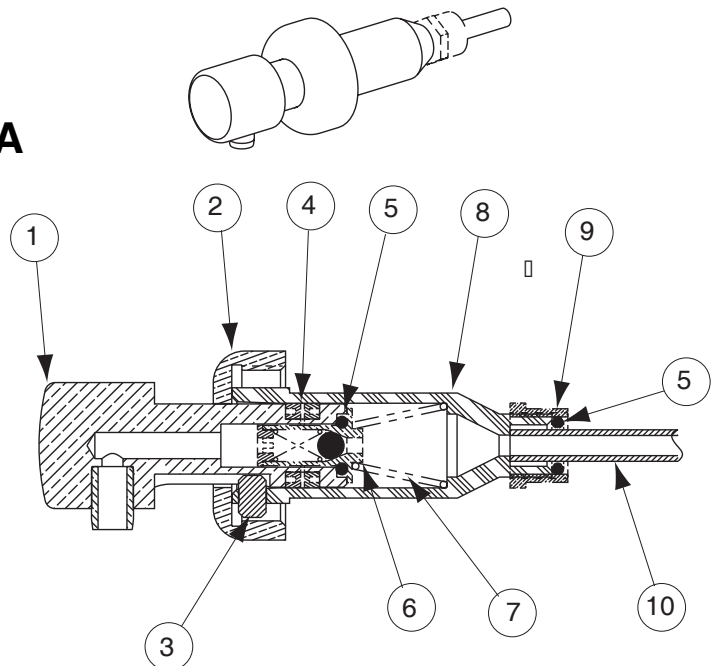
Soap System



Item	Part No.	Qty	Description
	S09-075	1	Soap System Assy.
1	S09-078A	2	Soap Valve
2	S52-109	2	Soap Valve Body Assy.
3	136-011	1	Filler Cap
4	142-002CJ	1	Washer
5	110-093	1	Nut
6	153-174	1	Filler Body
7	169-916	1	Connector Male
8	130-142	1	Wrench for filler cap
9	110-115	2	Hex Nut
10	142-002CB	1	Washer

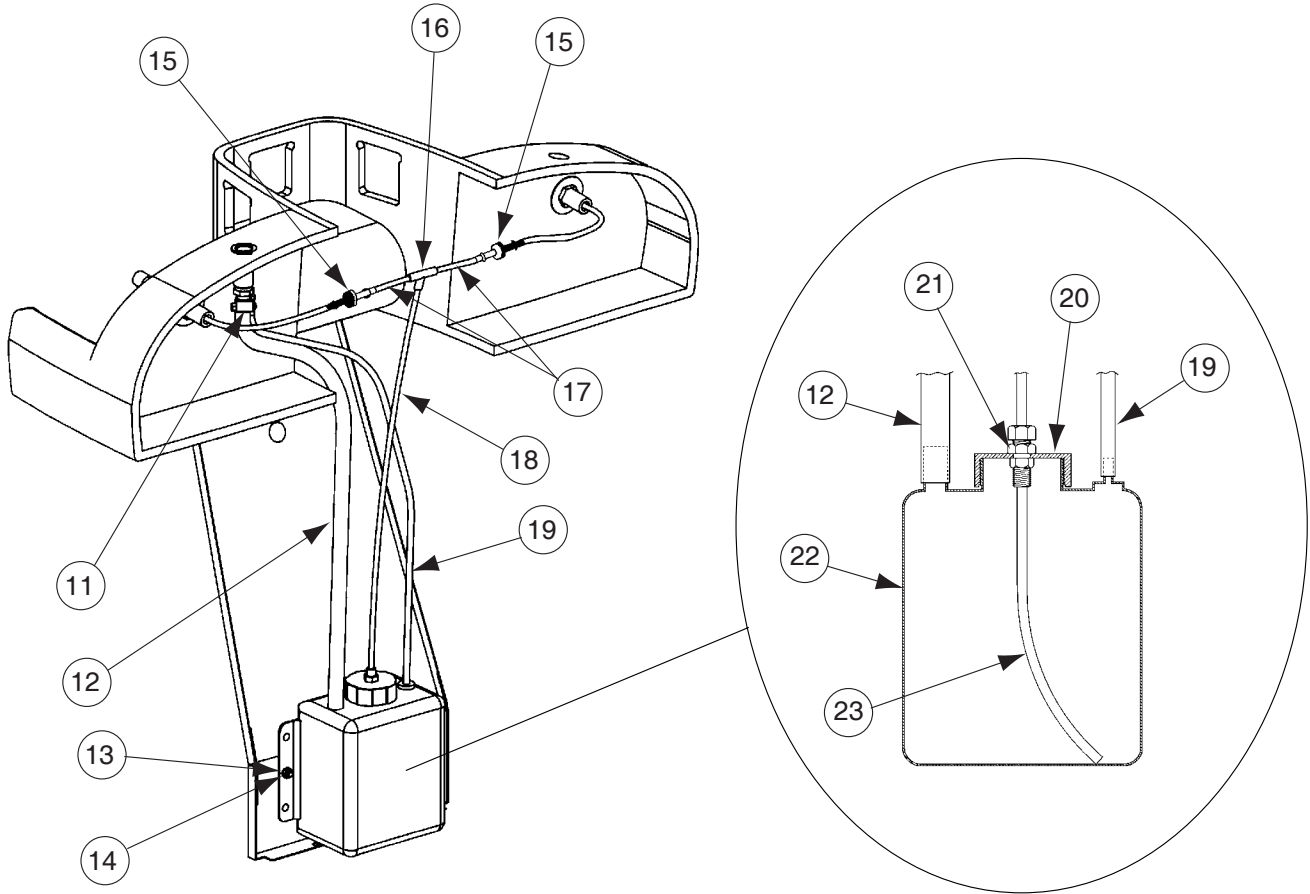
Parts List — Soap Valve S09-078A

Item	Part No.	Qty	Description
	S09-078A	1	Soap Valve Complete
1	S64-030	1	Plunger Assy.
2	110-227A	1	Collar
3	160-239	1	Set Screw
4	125-056	2	U-Cup
5	125-001DH	2	O-Ring
6	S68-004	1	Seat Assy.
7	135-035	1	Spring
8	144-043A	1	Cylinder
9	169-964	1	Nut
10	169-928	1	Tube 1/8" ID (Specify length in feet)





Soap System ...Continued

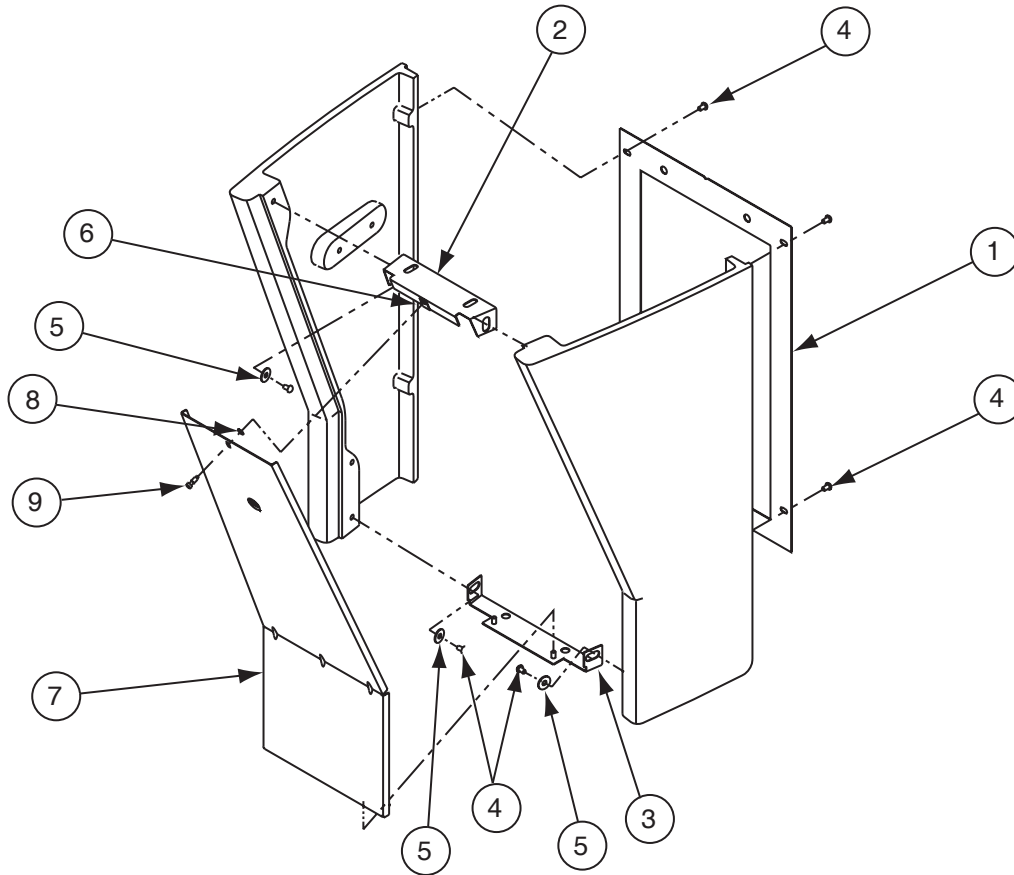


Parts List — Soap System

Item	Part No.	Qty	Description
11	146-040	1	Hose Clamp
12	169-989	1	Filler Hose
13	161-026	1	Nut
14	142-002AV	1	Washer
15	269-028	2	Check Valve
16	169-966	1	Tee
17	169-928	2	Tube 1/8" ID (Specify length in feet)
18	169-928	1	Tube 1/8" ID (Specify length in feet)
*	S57-058	1	Draw Tube Assy. Includes: 15 thru 18
19	R68-600021	1	Vent Tube 3/16" ID x 48"
20	136-031	1	Cap for soap tank
21	269-021	1	Bulkhead Fitting for soap tank cap
22	240-001	1	Soap Tank
23	169-928	1	Tube 1/8" ID (Specify length in feet)



Floor Pedestal — Assembly



Parts List — Floor Pedestal

Item	Part No.	Description	Corner	Tri	Quad
			Qty	Qty	Qty
1	186-1194	Mounting Panel	1	—	—
1	186-961	Mounting Panel	—	1	—
1	186-965	Mounting Panel	—	—	1
** 2	S04-056	Upper Bracket Assembly	1	1	—
** 2	S04-057	Upper Bracket Assembly	—	—	1
3	140-642	Lower Bracket	1	1	—
3	140-644	Lower Bracket	—	—	1
4	160-389	Screw ¼-20 x 1/2	8	8	8
5	142-002BJ	Washer	4	4	4
6	146-055	Clip	1	1	1
7	S04-100	Access Panel — Standard Height	1	1	—
7	S04-095	Access Panel — Juvenile Height	1	1	—
7	S04-101	Access Panel — Standard Height	—	—	1
7	S04-096	Access Panel — Juvenile Height	—	—	1
* 8	132-031	Washer	1	1	1
* 9	147-019	Screw	1	1	1

* Access panel (Item 7) part numbers include the screw and washer.

** Upper Bracket Assembly includes Item 6.



Terreon® Care and Maintenance

Material Description

Constructed of Terreon®, a NAHB Certified densified solid surface material composed of polyester resin. Terreon® is resistant to chemicals, stains, burns and impact. Surface damage can be easily repaired with everyday cleansers or fine grit abrasives.

Routine Cleaning

Clean daily or as often as conditions require using a standard commercial or household cleaner such as Formula 409® or Windex®.

Stubborn Stains

Remove tough stains with Ajax®, Comet®, or Soft-Scrub® and a green Scotch-Brite® pad or lightly sand in a circular motion with 240 grit wet/dry sandpaper. The finish can be renewed with a maroon Scotch-Brite pad.

Special Situations for Material

Scratches

Remove scratches with a green Scotch-Brite® pad. The finish can then be renewed with a maroon Scotch-Brite® pad.


Hard Water Deposits

Remove hard water deposits with a mild solution of vinegar and water. Always rinse the unit thoroughly after cleaning.

Restoring the Surface

Use Hope's® Solid Surface cleaner and polish to refresh and protect the Terreon Solid Surface material.

Bradley recommends additional care and maintenance for the darker colored Terreon, for complete instructions on this additional maintenance see Bradley document #1505.

 **DO NOT USE STRONG ACID OR ALKALINE CHEMICALS AND CLEANSERS TO CLEAN TERREON. IF THESE CHEMICALS COME IN CONTACT WITH THE TERREON SURFACE WIPE THEM OFF IMMEDIATELY AND RINSE WITH SOAPY WATER.**

 **AVOID CONTACT WITH HARSH CHEMICALS SUCH AS PAINT REMOVER, BLEACH, ACETONE, ETC. . .**

 **AVOID CONTACT WITH HOT PANS AND OBJECTS.**

Tip

When cleaning units equipped with infrared (electronic eye) activation, it is helpful to turn off the power to the unit or cover the windows to prevent accidental activation. After the window is covered, the water will run for approximately 30 seconds and then shut off.

Repair Kits

Terreon® repair kits are available, contact your Bradley representative or distributor for part numbers and pricing.

NOTE: Repair kits are made to order and have a shelf life of 30 days.

Brand Names

Use of brand names is intended only to indicate a type of cleaner. This does not constitute an endorsement, or does the omission of any brand name cleaner imply it's inadequacy. Many products named are regional in distribution, and can be found in local supermarkets, department and hardware stores, or through your cleaning service.



It is emphasized that all products should be used in strict accordance with package instructions.