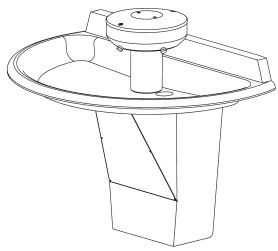


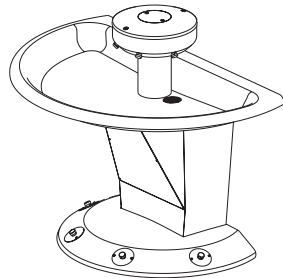
Parts & Service

Sentry Washfountain

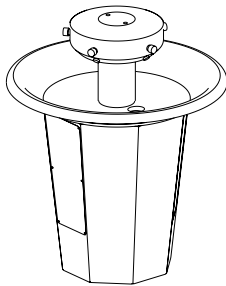
**Current Models After
February 1, 2013**



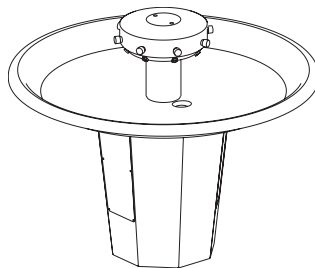
SN2003 (AST shown)



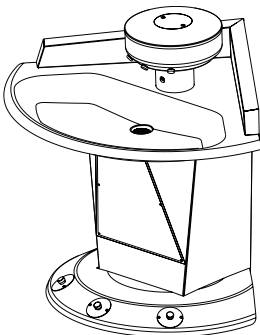
SN2004 (AST-F shown)



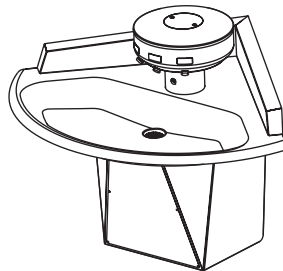
SN2005 (AST shown)



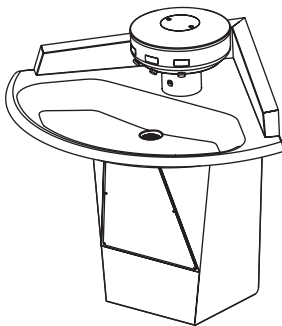
SN2008 (AST shown)



SN2013 (AST-4 shown)



SN2033 (IR shown)



SN2023 (IR shown)

SN2003

36" Semi-Circular, Floor-Mounted

SN2004

54" Semi-Circular, Floor-Mounted

SN2023

36" Semi-Circular, Wall-Mounted

SN2024

54" Semi-Circular, Wall-Mounted

SN2005

36" Circular, Floor-Mounted

SN2008

54" Circular, Floor-Mounted

SN2013

54" Corner, Floor-Mounted

SN2033

54" Corner, Wall-Mounted

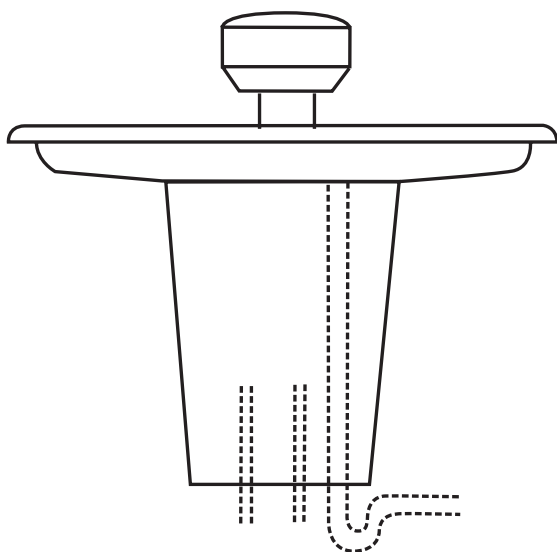
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How to Determine Drain Type



Parts may vary depending upon drain type. Identify your drain type before continuing.

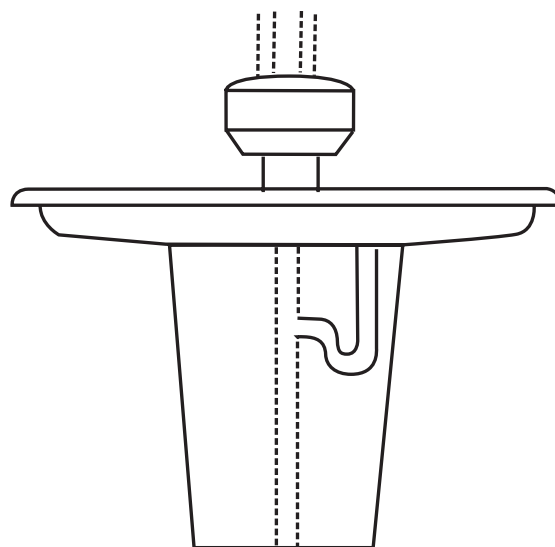


TYPE A:

SUPPLIES BELOW

VENT OFF DRAIN

P-TRAP FURNISHED BY OTHERS

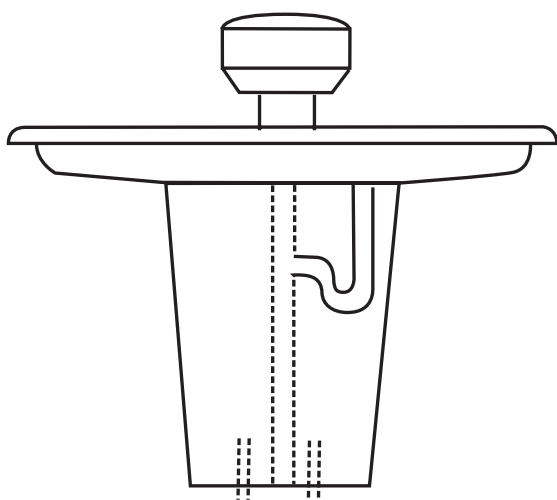


TYPE B:

SUPPLIES ABOVE

CENTRALLY-RISING VENT

P-TRAP FURNISHED

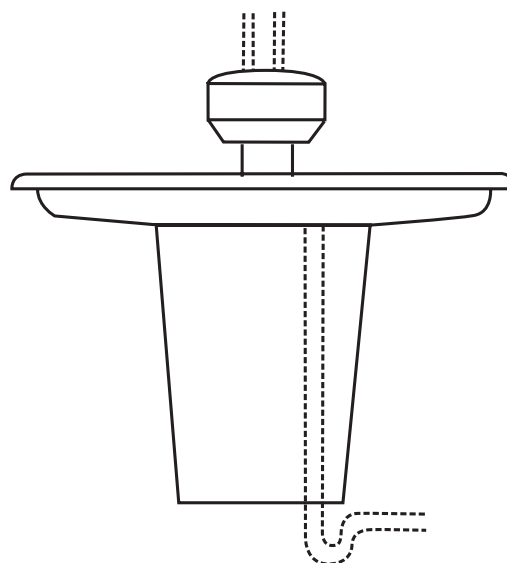


TYPE H:

SUPPLIES BELOW

CENTRALLY-RISING VENT

P-TRAP FURNISHED



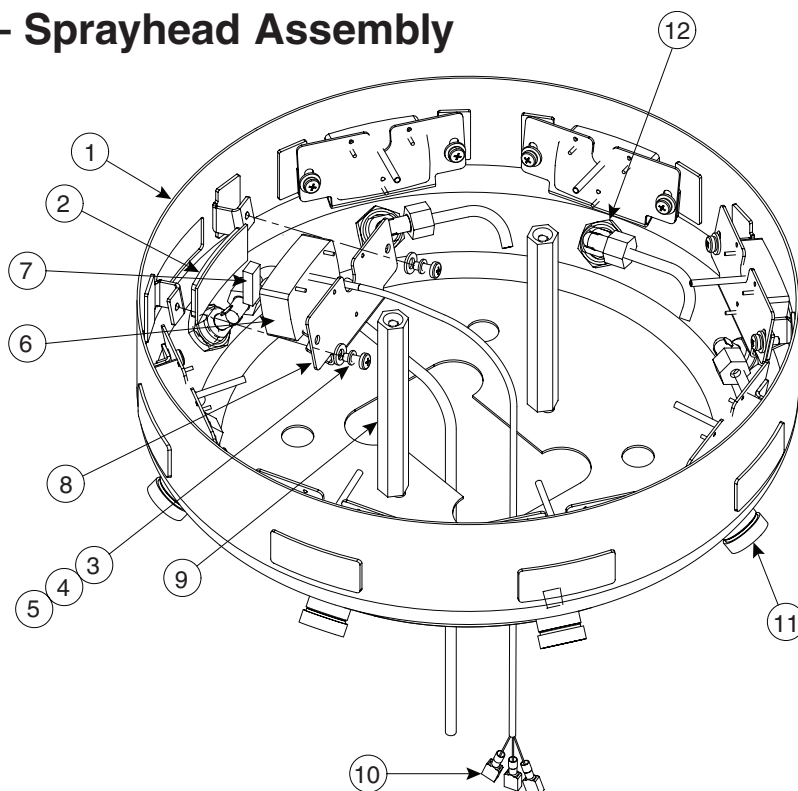
TYPE O:

SUPPLIES ABOVE

VENT OFF DRAIN

P-TRAP FURNISHED BY OTHERS

Infrared (IR) — Sprayhead Assembly

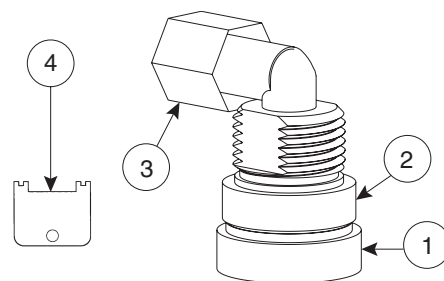


Parts List — Infrared Sensor and Module

Item	Part No.	Description	54" Corner Qty.	36" Semi Qty.	54" Semi Qty.	36" Circle Qty.	54" Circle Qty.
1	—	Shell	1	1	1	1	1
2	269-982	Lens (window)	3	3	4	5	8
3	160-245	Screw 10-24 x 1/2"	6	6	8	10	16
4	142-002BT	Lock Washer	6	6	8	10	16
5	142-002AV	Flat washer	6	6	8	10	16
6	269-1184	Sensor	3	3	4	5	8
7	182-100	Lens Support (Rubber Block)	3	3	4	5	8
8	159-363	Sensor Mounting Bracket	3	3	4	5	8
9	161-082	Nut - Extension 1/4"-20 x 5-1/8"	2	2	2	2	2
10	269-621	Terminal - female disconnect	9	9	12	15	24
11	S05-157	Aerator Assembly (Std 0.5 GPM)	3	3	4	5	8
12	110-115	Nut - 1/2" - 14	3	3	4	5	8

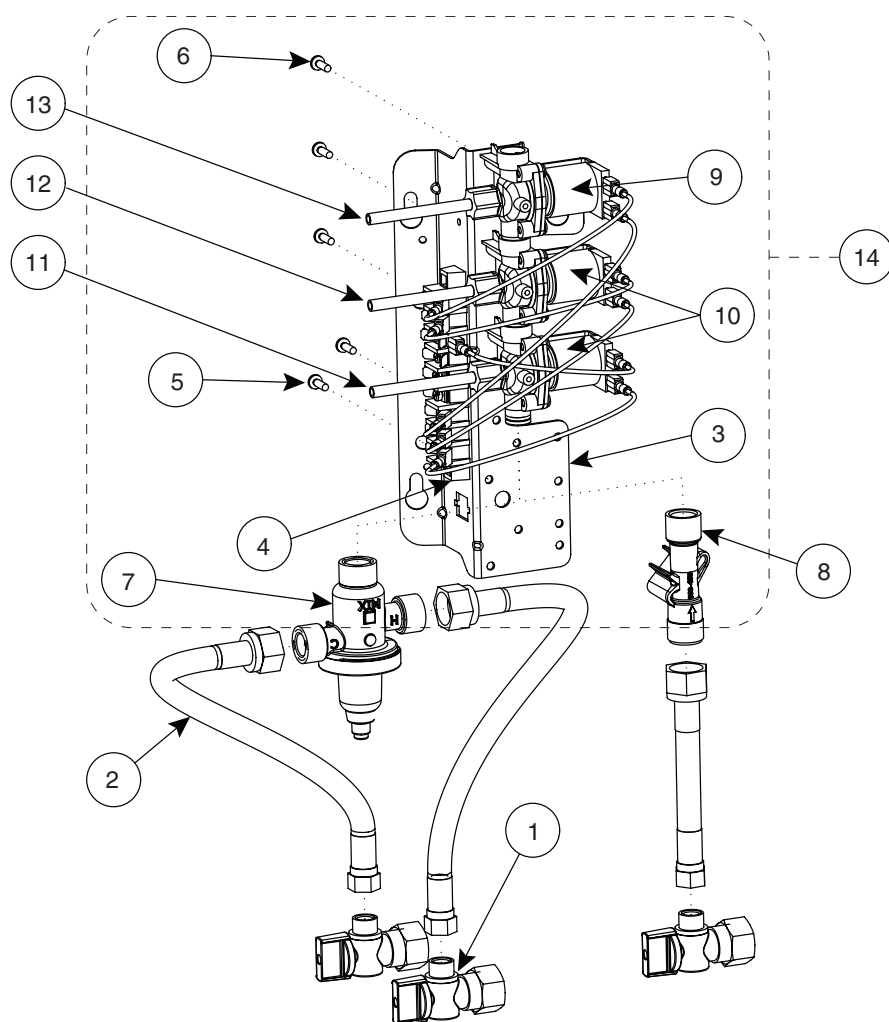
Parts List — Aerator Assembly (S05-157)

Item	Part No.	Description	Qty
1	S05-142A	Std. Aerator, 0.5 GPM	1
2	153-402A	Adapter	1
3	145-090	90° Connector 1/4" tube x 1/8" NPT	1
4*	130-141	Spanner Wrench for Aerator - Before August 2014	—
4*	130-149	Spanner Wrench for Aerator - After August 2014	—



*Spanner wrench not included in Assemblies

Infrared (IR) Part 1 — Solenoid Valve Assembly (24V Transformer)

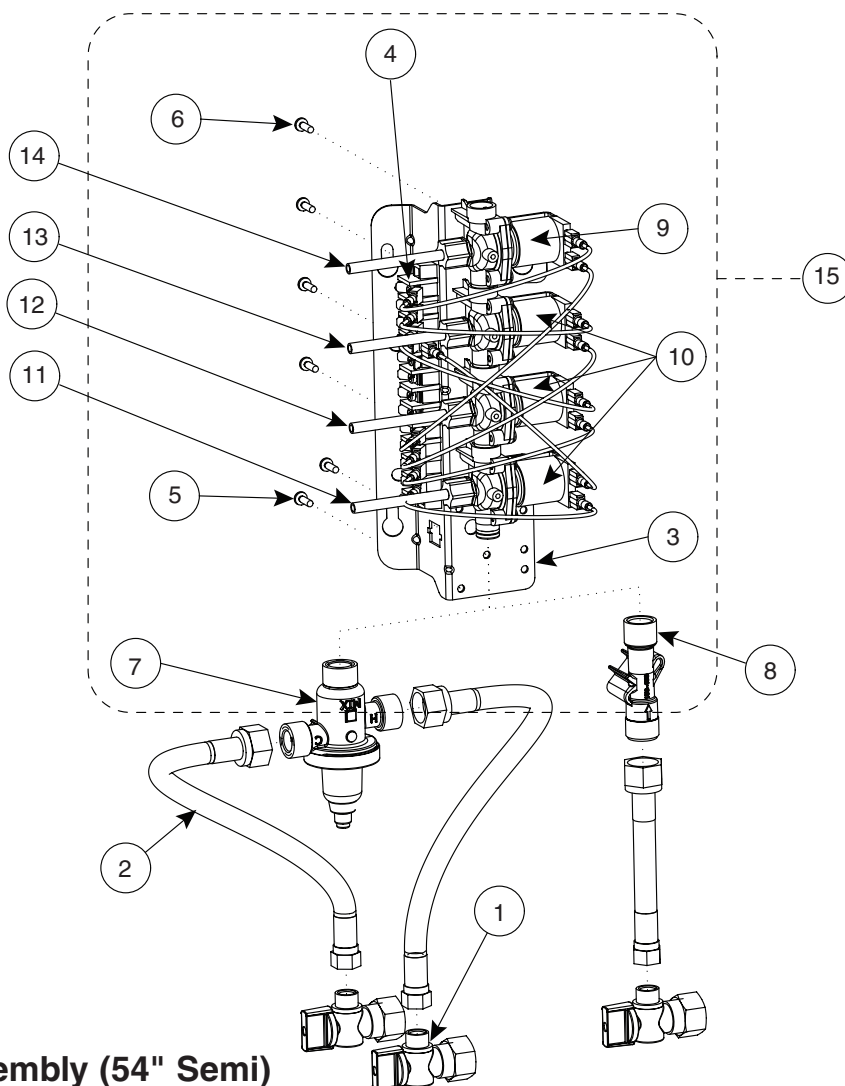


Parts List — Solenoid Valve Assembly (54" Corner and 36" Semi)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-928	Bracket	1
4	269-625	Terminal Block	1
5	P18-054	Screw #10-24 x 3/8	2
6	160-447	Screw #8-16 x 5/8	3
7	S01-526	Thermostatic Mixing Valve	1
8	S39-804	Adapter (Optional Single Tempered Line)	1
9	S07-067	Solenoid Valve - Closed Body (Black)	1
10	S07-067A	Solenoid Valve - Thru Body (Gray)	2
11	R68-600011-B	Tubing 1/4 OD Black	*
12	R68-600011-G	Tubing 1/4 OD Green	*
13	R68-600011-R	Tubing 1/4 OD Red	*
14	S45-2521	Valve Assembly TMA 36S and 54K	1

* Specify Length in feet.

Infrared (IR) Part 1 — Solenoid Valve Assembly (24V Transformer)

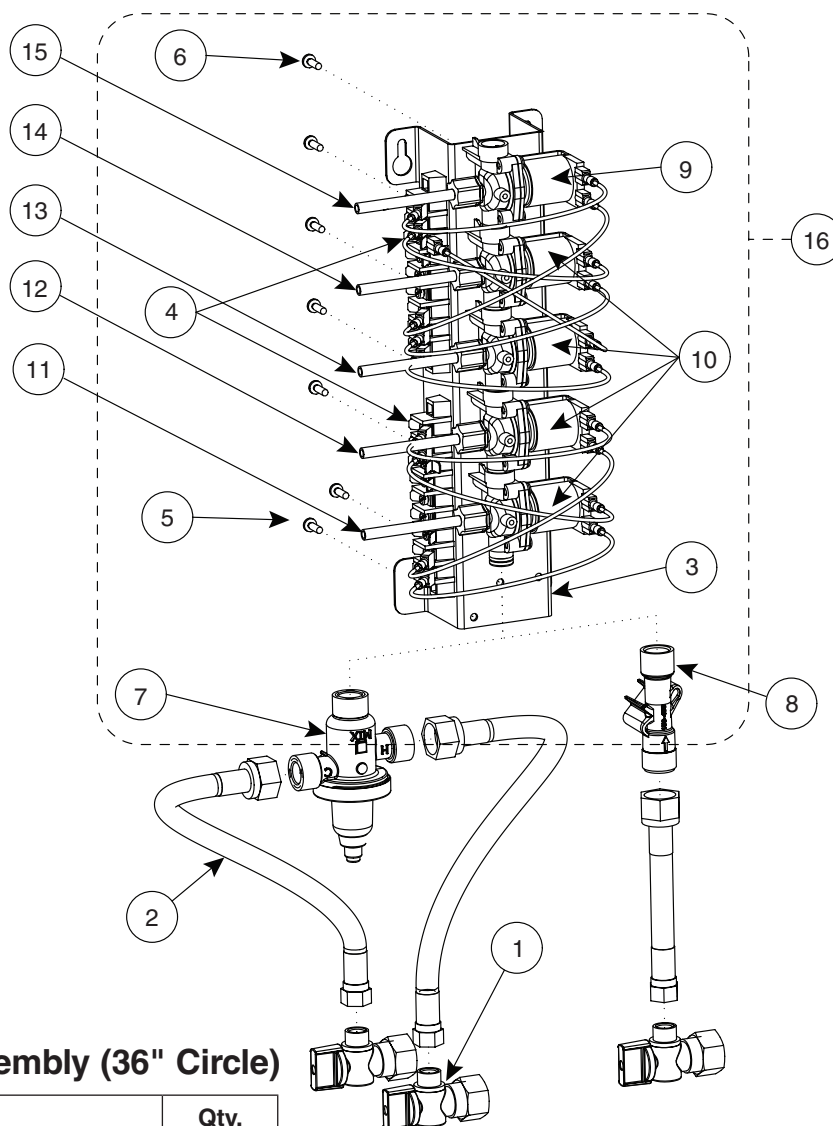


Parts List — Solenoid Valve Assembly (54" Semi)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-928	Bracket	1
4	269-647	Terminal Block	1
5	P18-054	Screw #10-24 x 3/8	2
6	160-447	Screw #8-16 x 5/8	4
7	S01-526	Thermostatic Mixing Valve	1
8	S39-804	Adapter (Optional Single Tempered Line)	1
9	S07-067	Solenoid Valve - Closed Body (Black)	1
10	S07-067A	Solenoid Valve - Thru Body (Gray)	3
11	R68-600011-Y	Tubing 1/4 OD Yellow	*
12	R68-600011-B	Tubing 1/4 OD Black	*
13	R68-600011-G	Tubing 1/4 OD Green	*
14	R68-600011-R	Tubing 1/4 OD Red	*
15	S45-2523	Valve Assembly TMA 54S	1

* Specify Length in feet.

Infrared (IR) Part 1 — Solenoid Valve Assembly (24V Transformer)

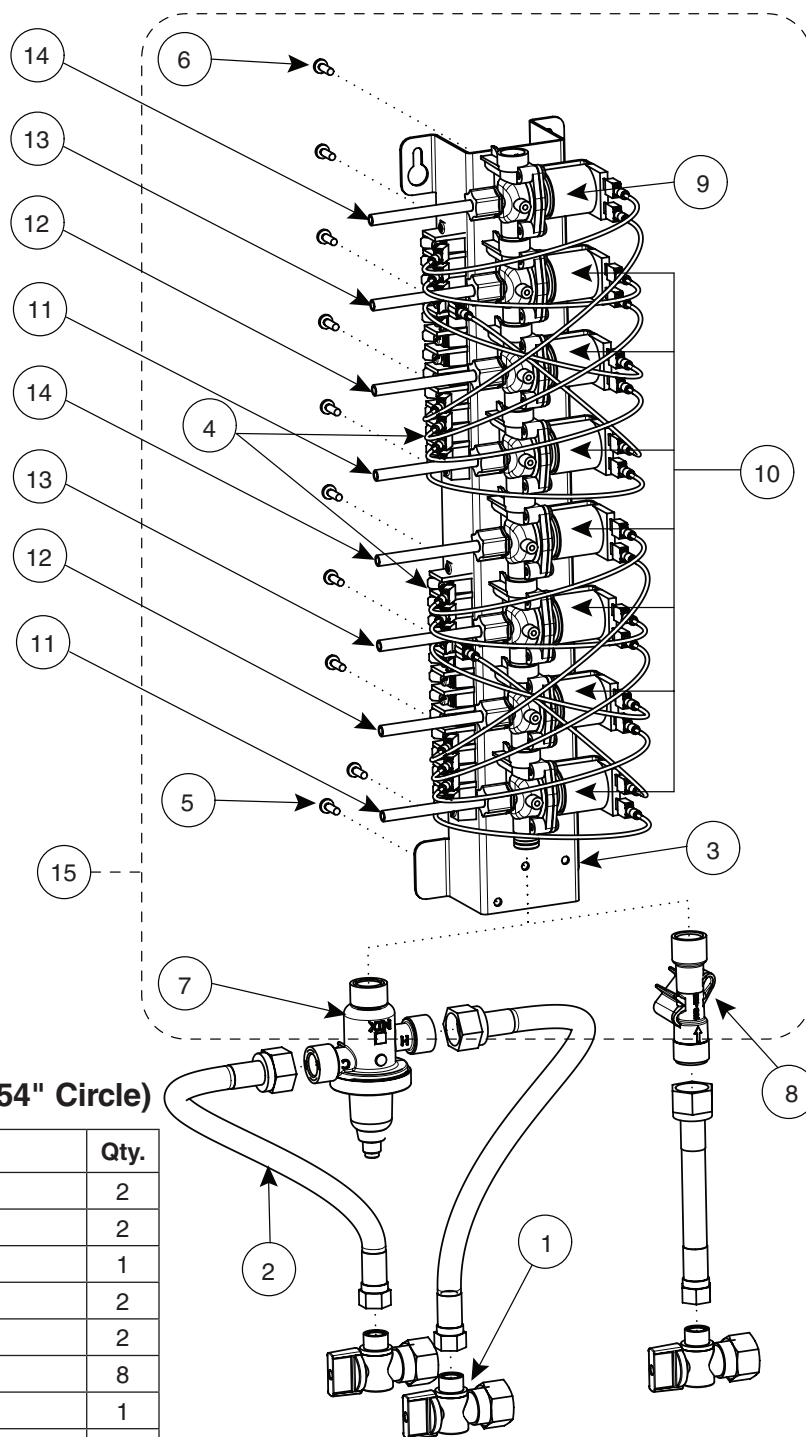


Parts List — Solenoid Valve Assembly (36" Circle)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-940	Bracket	1
4	269-625	Terminal Block	2
5	P18-054	Screw #10-24 x 3/8	2
6	160-447	Screw #8-16 x 5/8	5
7	S01-526	Thermostatic Mixing Valve	1
8	S39-804	Adapter (Optional Single Tempered Line)	1
9	S07-067	Solenoid Valve - Closed Body (Black)	1
10	S07-067A	Solenoid Valve - Thru Body (Gray)	4
11	R68-600011-Y	Tubing 1/4 OD Yellow	*
12	R68-600011-B	Tubing 1/4 OD Black	*
13	R68-600011-G	Tubing 1/4 OD Green	*
14	R68-600011-R	Tubing 1/4 OD Red	*
15	R68-600011	Tubing 1/4 OD Clear	*
16	S45-2525	Valve Assembly TMA 36C	1

* Specify Length in feet.

Infrared (IR) Part 1 — Solenoid Valve Assembly (24V Transformer)

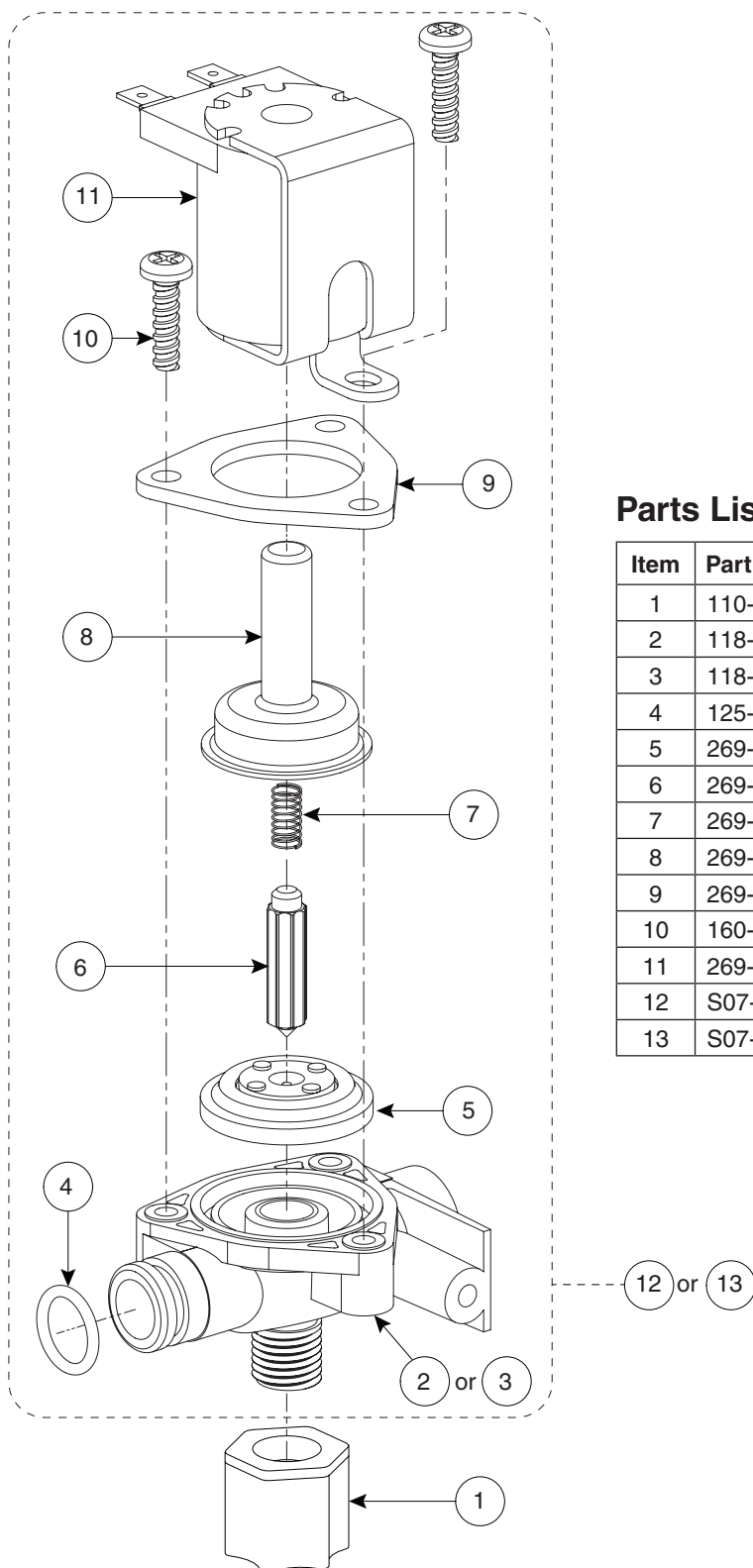


Parts List — Solenoid Valve Assembly (54" Circle)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-941	Bracket	1
4	269-647	Terminal Block	2
5	P18-054	Screw #10-24 x 3/8	2
6	160-447	Screw #8-16 x 5/8	8
7	S01-526	Thermostatic Mixing Valve	1
8	S39-804	Adapter (Optional Single Tempered Line)	1
9	S07-067	Solenoid Valve - Closed Body (Black)	1
10	S07-067A	Solenoid Valve - Thru Body (Gray)	7
11	R68-600011-Y	Tubing 1/4 OD Yellow	*
12	R68-600011-B	Tubing 1/4 OD Black	*
13	R68-600011-G	Tubing 1/4 OD Green	*
14	R68-600011-R	Tubing 1/4 OD Red	*
15	S45-2527	Valve Assembly TMA/IR 54C	1

* Specify Length in feet.

Infrared (IR) Part 2 — Solenoid Valve Assembly (24V Transformer)



Parts List — Solenoid Valve Assembly

Item	Part No.	Description	Qty.
1	110-231	Nut 1/4 Tube	1
2	118-307	Valve Body 1/4" Closed	1
3	118-307A	Valve Body 1/4" Thru	1
4	125-165	O-Ring	1
5	269-983	Diaphragm	1
6	269-577	Armature	1
7	269-578	Spring	1
8	269-1729	Armature Housing	1
9	269-1730	Clamp	1
10	160-447	Screw #8-16 x 5/8	3
11	269-579	Coil, Solenoid Valve	1
12	S07-067S	Solenoid Valve Closed Body (Black)	1
13	S07-067AS	Solenoid Valve Thru Body (Gray)	1

Infrared (IR) — Sensor and Solenoid 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.

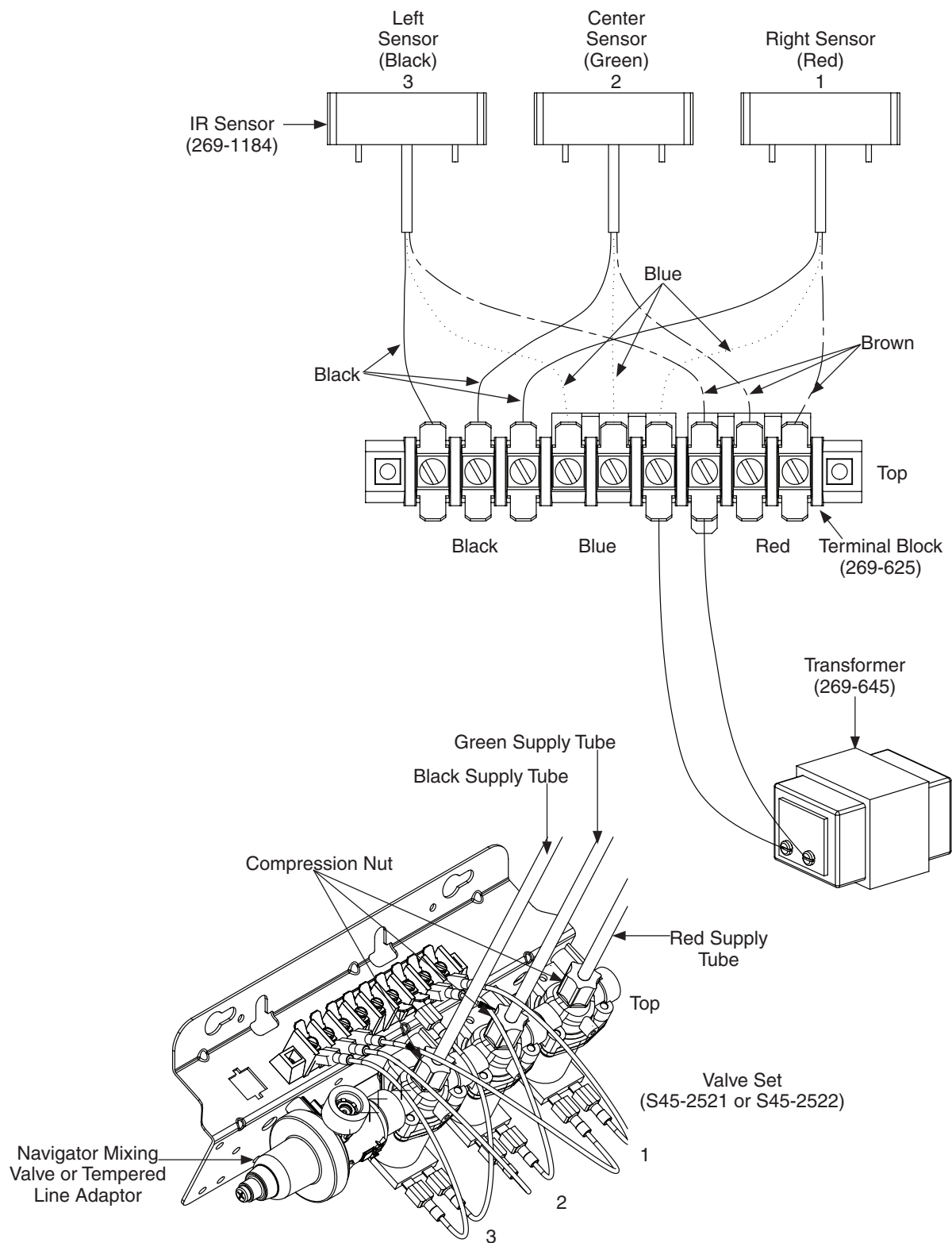
How the system operates:

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.

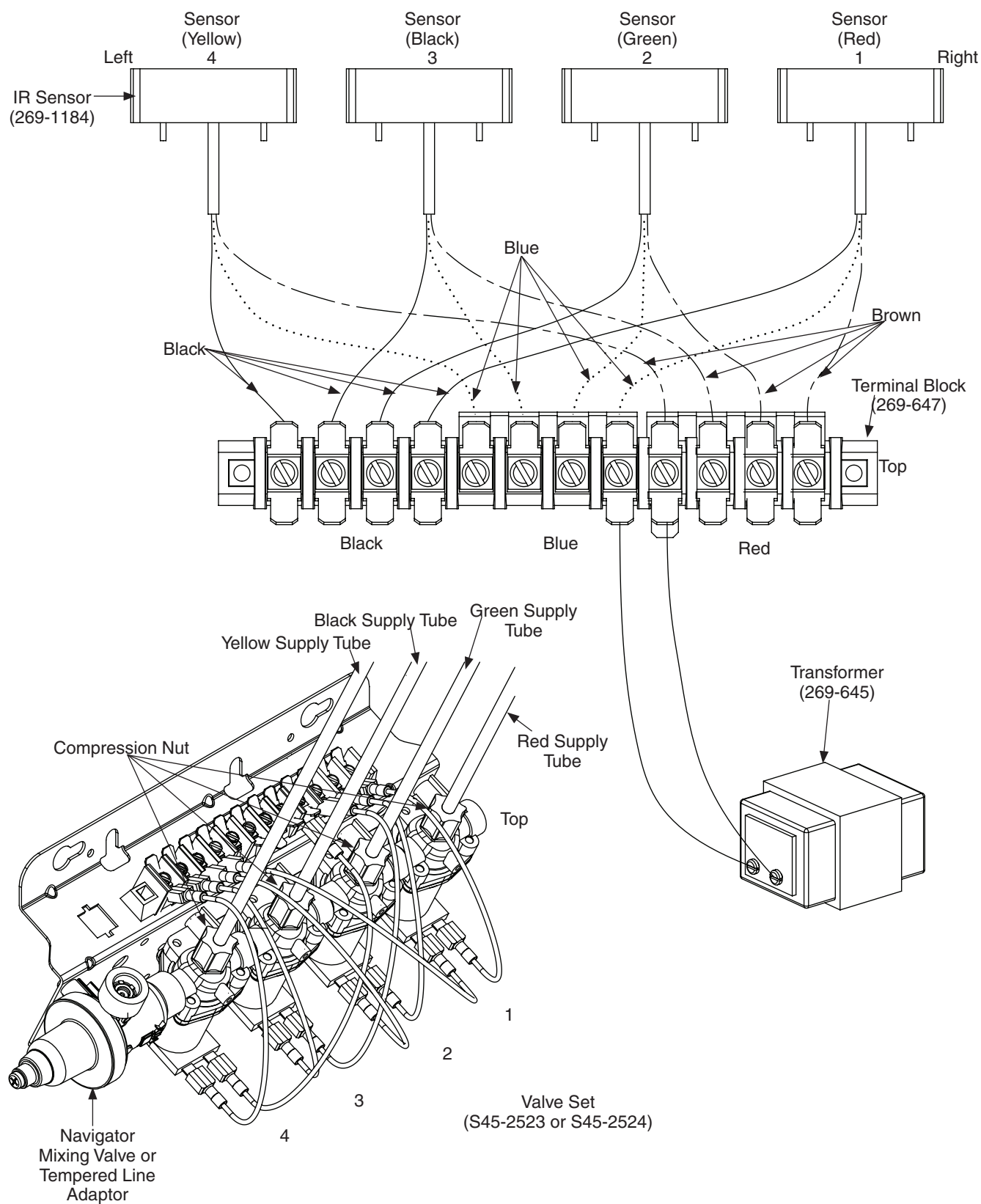
CAUTION: Turn off water supplies to unit before troubleshooting.

Problem	Cause	Solution
An individual operating station fails to shut off and drips.	There is debris trapped between the diaphragm and the valve seat.	Remove debris between diaphragm and the valve seat. 1. Remove the three #8 Phillips-head screws that hold the solenoid valve assembly together. Be careful not to lose the armature or spring. 2. Remove the diaphragm. Remove any particles that have been trapped between the diaphragm and the valve seat. Rinse off the diaphragm and inspect for damage. Make sure the center orifice and both small side orifices are open. 3. Reassemble in reverse order, being careful not to overtighten the Phillips-head screws or you may crack the plastic valve body. Tighten until the armature plate makes contact with the plastic body. 4. Reconnect the wiring per the appropriate diagram on next 4 pages.
An individual operating station fails to turn on.	A failed coil for the valve or loose electrical connection to the terminal.	Test the station to determine cause. 1. Disconnect the wires from the coil of an adjacent valve. Disconnect the wires from the problem valve and reconnect to the adjacent valve. 2. Turn on electrical and water supplies to the unit. Pass your hand in front of the sensor of the problem station, and the adjacent station should turn on. a. If the adjacent station turns on and cycles normally, replace the coil on the problem valve. b. If the adjacent valve fails to turn on, inspect the wires from the sensor cable and do the following: • make sure there are no breaks and that the fully insulated disconnect terminals are firmly crimped in place; • turn off the electrical and water supplies; • reconnect to the adjacent valve and turn on the water supplies to the unit; • pass your hand in front of the sensor. If the station still fails to turn on, replace the sensor.

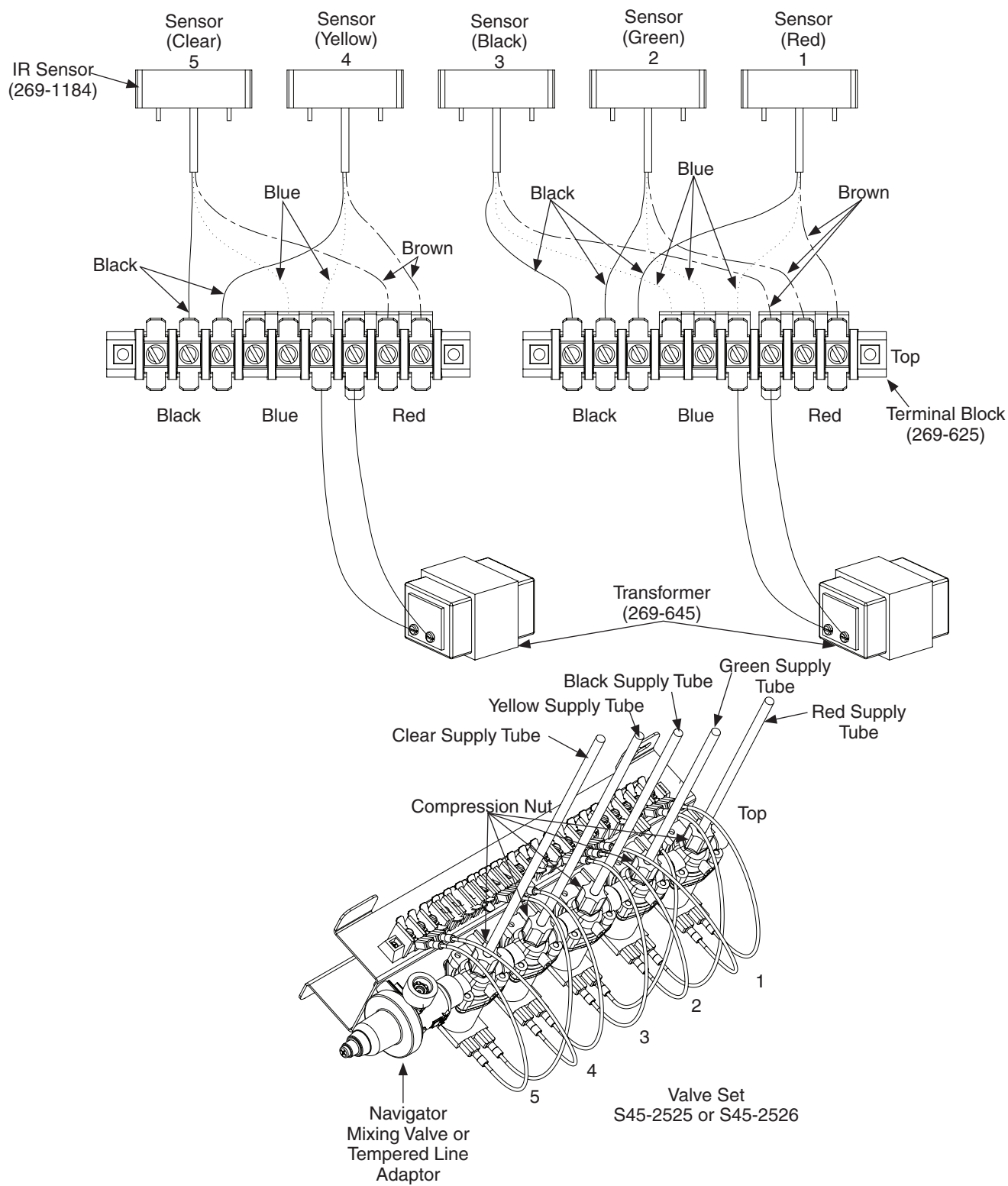
Infrared (IR) SN2003, SN2023, SN2013, SN2033 Wiring Diagram



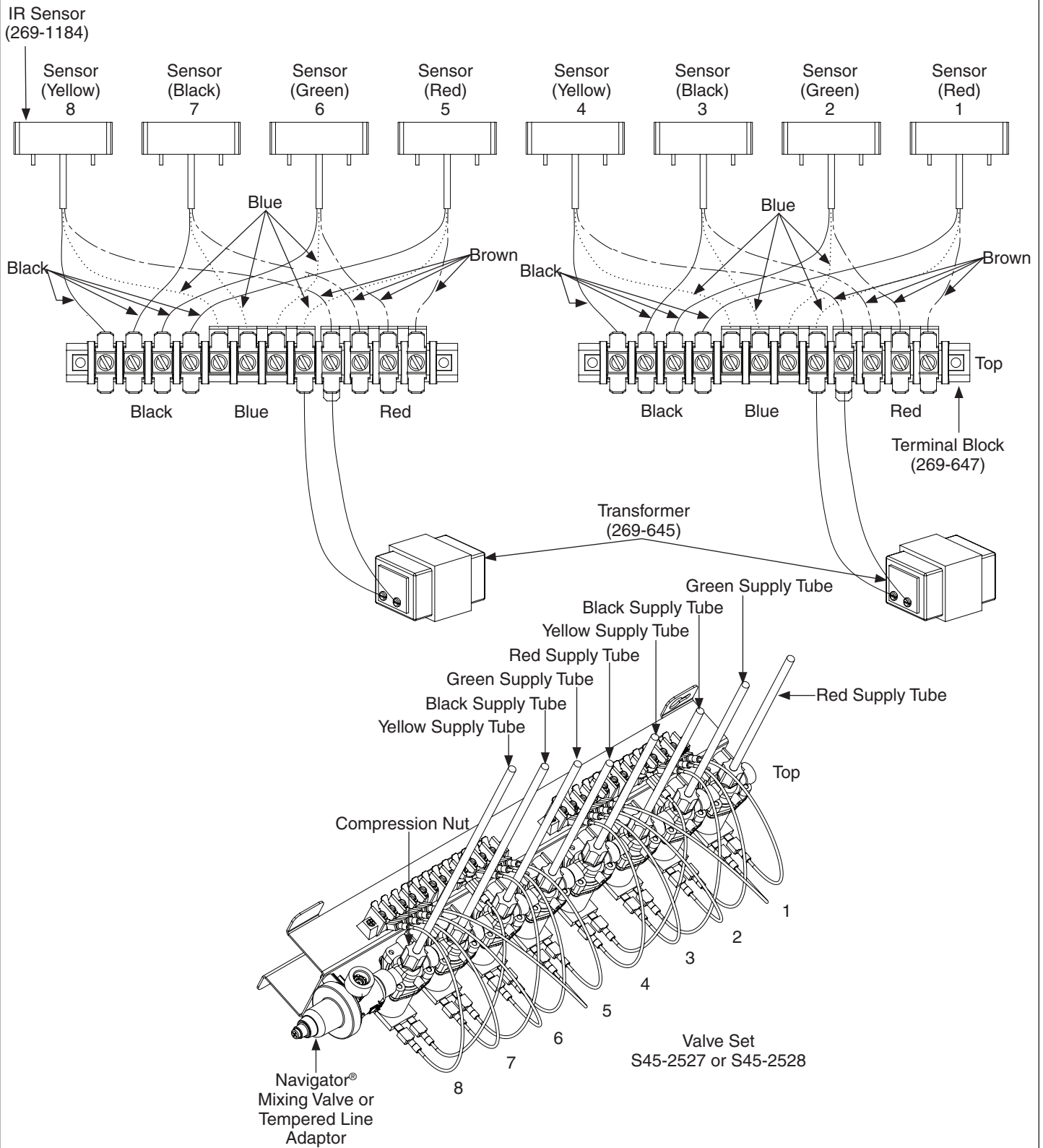
Infrared (IR) SN2004, SN2024 Wiring Diagram



Infrared (IR) SN2005 Wiring Diagram



Infrared (IR) SN2008 Wiring Diagram

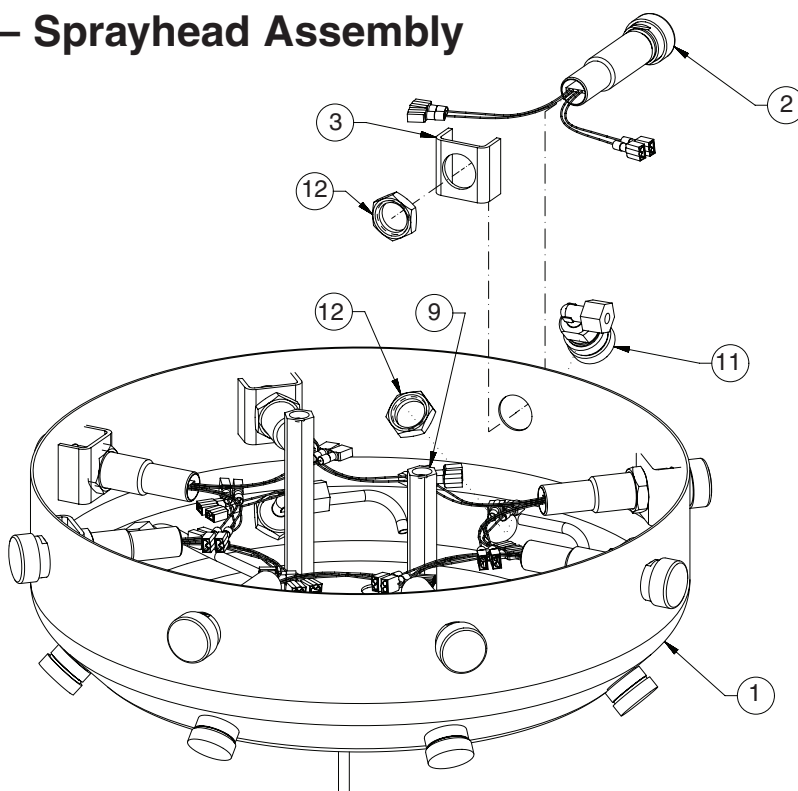


Sentry Transformers

Model	Description	Current		Prior to May 2003	
		Part Number	Qty.	Part Number	Qty.
SN2003	36" Semi-Circular – Floor Mounted	S45-2045	1	269-645	1
SN2004	54" Semi-Circular – Floor Mounted	S45-2045	1	269-645	1
SN2023	36" Semi-Circular – Wall Mounted	S45-2045	1	269-645	1
SN2024	54" Semi-Circular – Wall Mounted	S45-2045	1	269-645	1
SN2005	36" Circular – Floor Mounted	S45-2045	2	* 269-703	1
SN2008	54" Circular – Floor Mounted	S45-2045	2	* 269-703	1
SN2013	54" Corner – Floor Mounted	S45-2045	1	269-645	1
SN2033	54" Corner – Wall Mounted	S45-2045	1	269-645	1

* Available for service

Infrared (TT) — Sprayhead Assembly

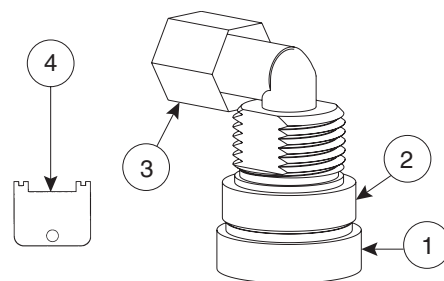


Parts List — TouchTime Sensor and Module

Item	Part No.	Description	54" Corner Qty.	36" Semi Qty.	54" Semi Qty.	36" Circle Qty.	54" Circle Qty.
1	—	Shell	1	1	1	1	1
2	S83-139B	TouchTime Button	3	3	4	5	8
3	140-802	Bracket - TouchTime	3	3	4	5	8
9	161-082	Nut - Extension 1/4"-20 x 5-1/8"	2	2	2	2	2
11	S05-157	Aerator Assembly (Std 0.5 GPM)	3	3	4	5	8
12	110-115	Nut - 1/2" - 14	6	6	8	10	16

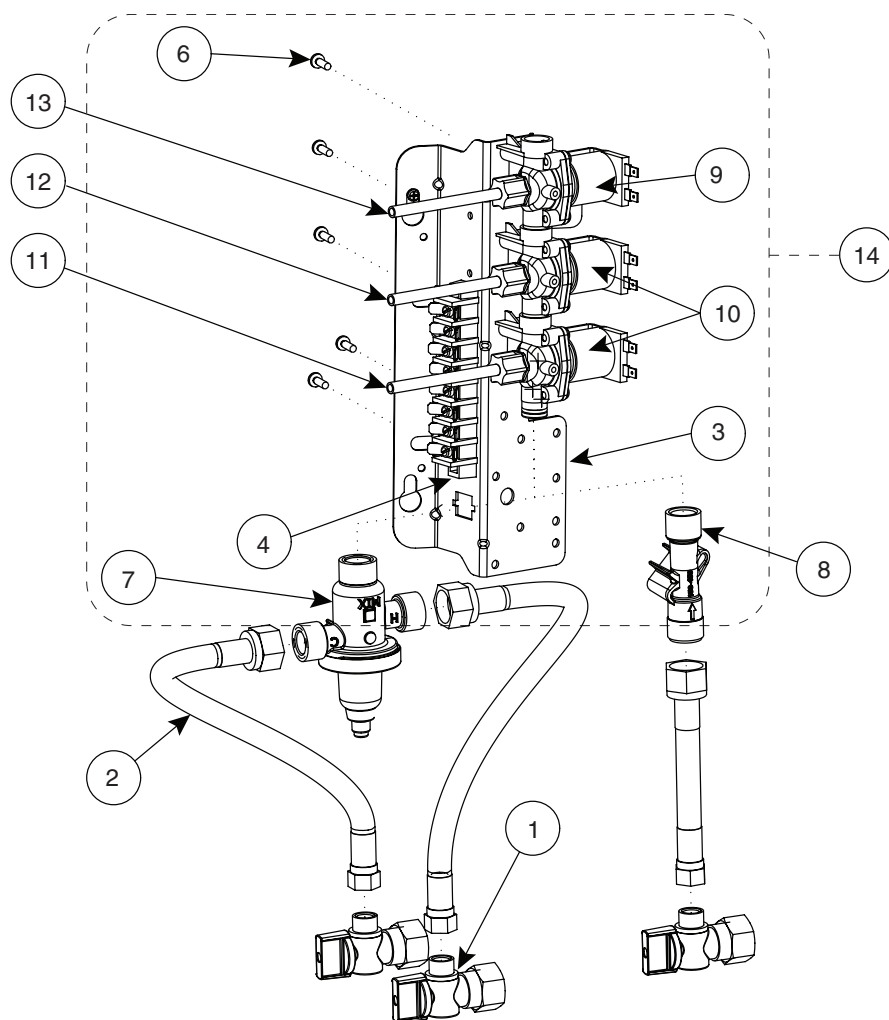
Parts List — Aerator Assembly (S05-157)

Item	Part No.	Description	Qty
1	S05-142A	Std. Aerator, 0.5 GPM	1
2	153-402A	Adapter	1
3	145-090	90° Connector 1/4" tube x 1/8" NPT	1
4*	130-141	Spanner Wrench for Aerator - Before August 2014	—
4*	130-149	Spanner Wrench for Aerator - After August 2014	—



*Spanner wrench not included in Assemblies

Infrared (TT) Part 1 — Solenoid Valve Assembly (24V Transformer)

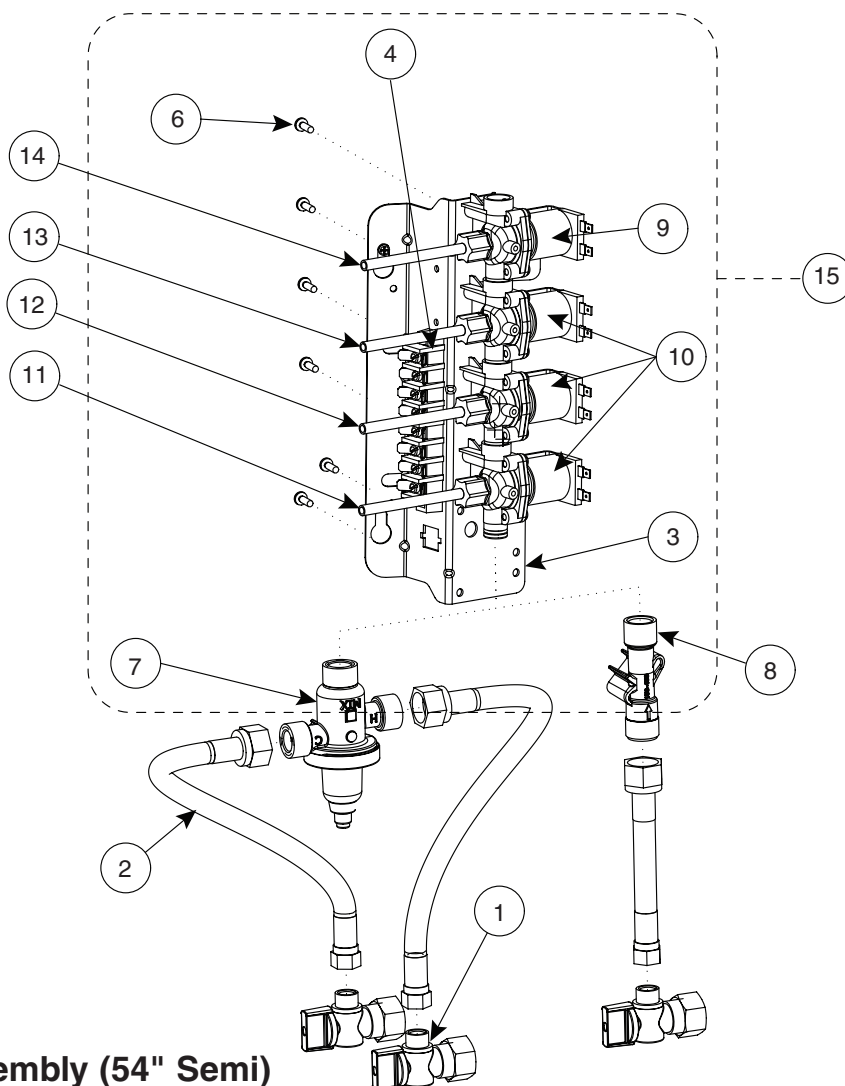


Parts List — Solenoid Valve Assembly (54" Corner and 36" Semi)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-928	Bracket	1
4	269-1311	Terminal Block	1
6	160-447	Screw #8-16 x 5/8	5
7	S01-526	Thermostatic Mixing Valve	1
8	S39-804	Adapter (Optional Single Tempered Line)	1
9	S07-067	Solenoid Valve - Closed Body (Black)	1
10	S07-067A	Solenoid Valve - Thru Body (Gray)	2
11	R68-600011-B	Tubing 1/4 OD Black	*
12	R68-600011-G	Tubing 1/4 OD Green	*
13	R68-600011-R	Tubing 1/4 OD Red	*
14	S45-2491	Valve Assembly TMA 36S and 54K	1

* Specify Length in feet.

Infrared (TT) Part 1 — Solenoid Valve Assembly (24V Transformer)

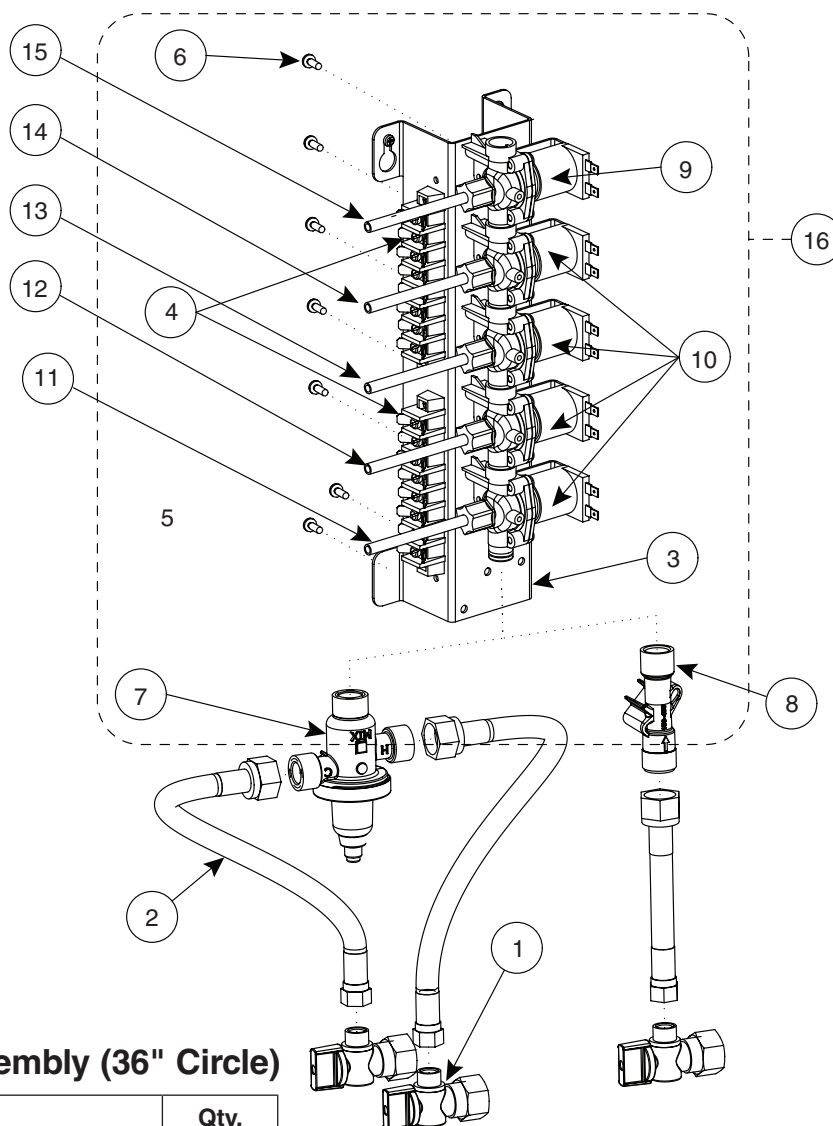


Parts List — Solenoid Valve Assembly (54" Semi)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-928	Bracket	1
4	269-1311	Terminal Block	1
6	160-447	Screw #8-16 x 5/8	6
7	S01-526	Thermostatic Mixing Valve	1
8	S39-804	Adapter (Optional Single Tempered Line)	1
9	S07-067	Solenoid Valve - Closed Body (Black)	1
10	S07-067A	Solenoid Valve - Thru Body (Gray)	3
11	R68-600011-Y	Tubing 1/4 OD Yellow	*
12	R68-600011-B	Tubing 1/4 OD Black	*
13	R68-600011-G	Tubing 1/4 OD Green	*
14	R68-600011-R	Tubing 1/4 OD Red	*
15	S45-2850	Valve Assembly TMA 54S	1

* Specify Length in feet.

Infrared (TT) Part 1 — Solenoid Valve Assembly (24V Transformer)

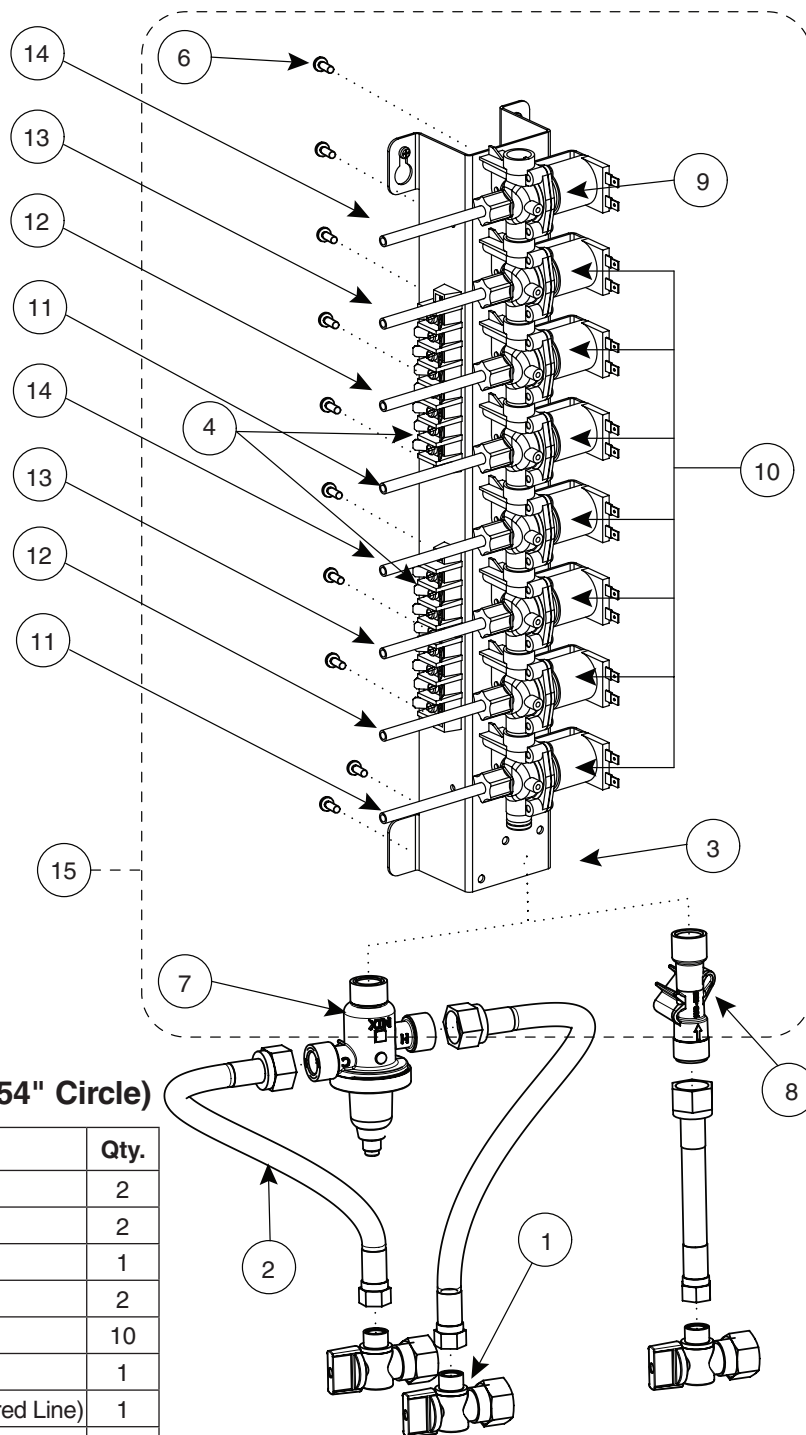


Parts List — Solenoid Valve Assembly (36" Circle)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-940	Bracket	1
4	269-1311	Terminal Block	2
6	160-447	Screw #8-16 x 5/8	7
7	S01-526	Thermostatic Mixing Valve	1
8	S39-804	Adapter (Optional Single Tempered Line)	1
9	S07-067	Solenoid Valve - Closed Body (Black)	1
10	S07-067A	Solenoid Valve - Thru Body (Gray)	4
11	R68-600011-Y	Tubing 1/4 OD Yellow	*
12	R68-600011-B	Tubing 1/4 OD Black	*
13	R68-600011-G	Tubing 1/4 OD Green	*
14	R68-600011-R	Tubing 1/4 OD Red	*
15	R68-600011	Tubing 1/4 OD Clear	*
16	S45-2852	Valve Assembly TMA 36C	1

* Specify Length in feet.

Infrared (TT) Part 1 — Solenoid Valve Assembly (24V Transformer)

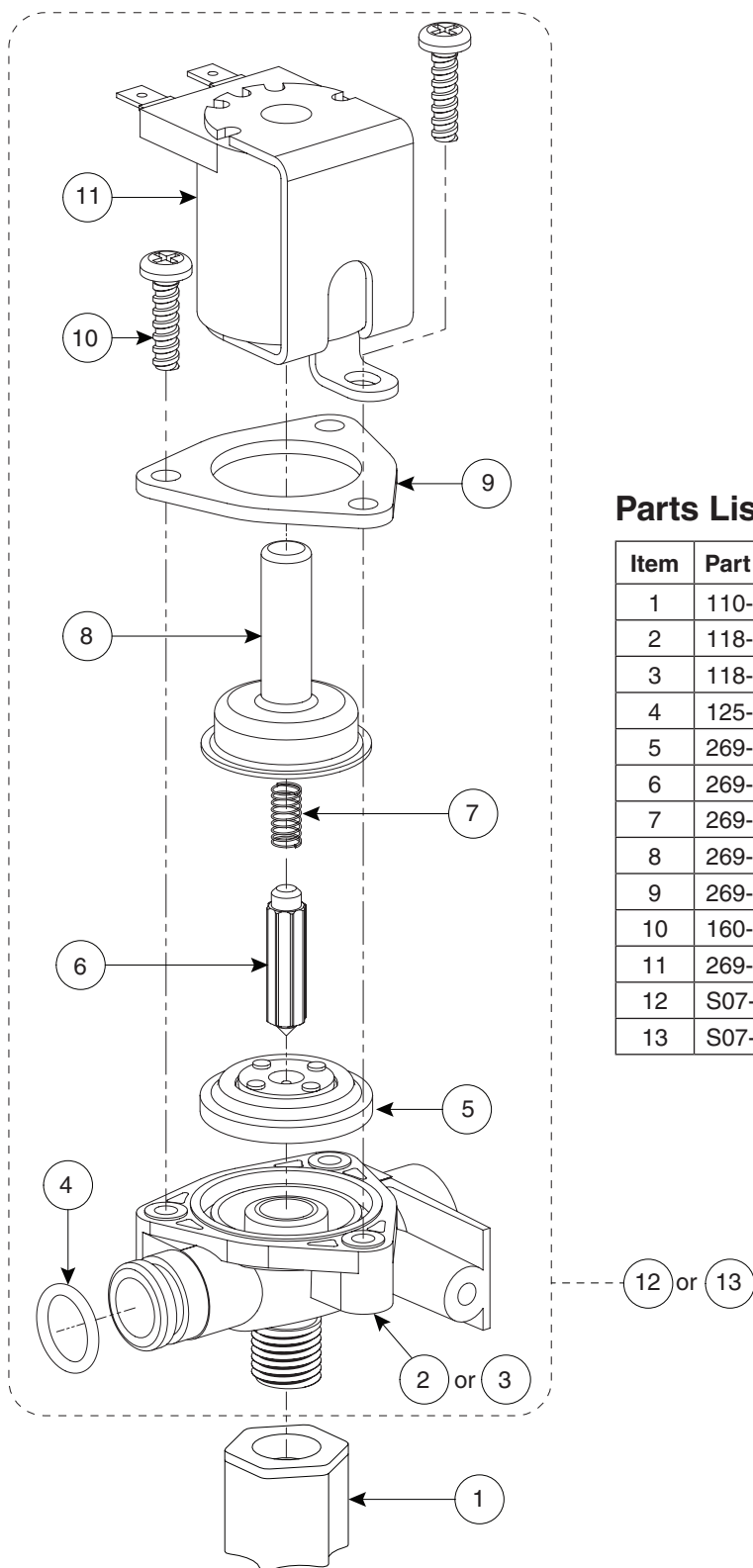


Parts List — Solenoid Valve Assembly (54\" Circle)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-941	Bracket	1
4	269-1311	Terminal Block	2
6	160-447	Screw #8-16 x 5/8	10
7	S01-526	Thermostatic Mixing Valve	1
8	S39-804	Adapter (Optional Single Tempered Line)	1
9	S07-067	Solenoid Valve - Closed Body (Black)	1
10	S07-067A	Solenoid Valve - Thru Body (Gray)	7
11	R68-600011-Y	Tubing 1/4 OD Yellow	*
12	R68-600011-B	Tubing 1/4 OD Black	*
13	R68-600011-G	Tubing 1/4 OD Green	*
14	R68-600011-R	Tubing 1/4 OD Red	*
15	S45-2854	Valve Assembly TMA/IR 54C	1

* Specify Length in feet.

Infrared (TT) Part 2 — Solenoid Valve Assembly (24V Transformer)



Parts List — Solenoid Valve Assembly

Item	Part No.	Description	Qty.
1	110-231	Nut 1/4 Tube	1
2	118-307	Valve Body 1/4" Closed	1
3	118-307A	Valve Body 1/4" Thru	1
4	125-165	O-Ring	1
5	269-983	Diaphragm	1
6	269-577	Armature	1
7	269-578	Spring	1
8	269-1729	Armature Housing	1
9	269-1730	Clamp	1
10	160-447	Screw #8-16 x 5/8	3
11	269-579	Coil, Solenoid Valve	1
12	S07-067S	Solenoid Valve Closed Body (Black)	1
13	S07-067AS	Solenoid Valve Thru Body (Gray)	1

Infrared (TT) — Sensor and Solenoid 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.

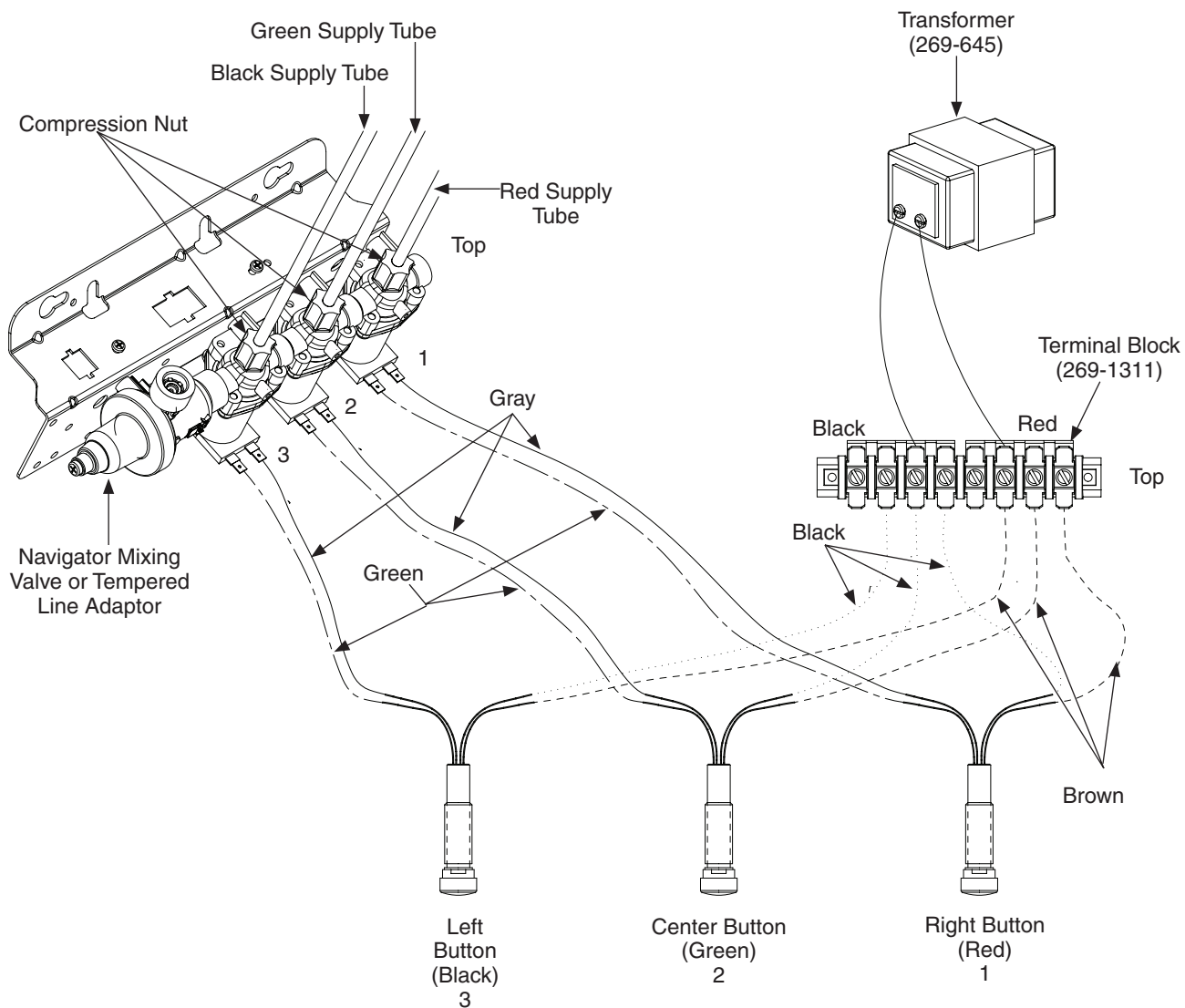
How the system operates:

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.

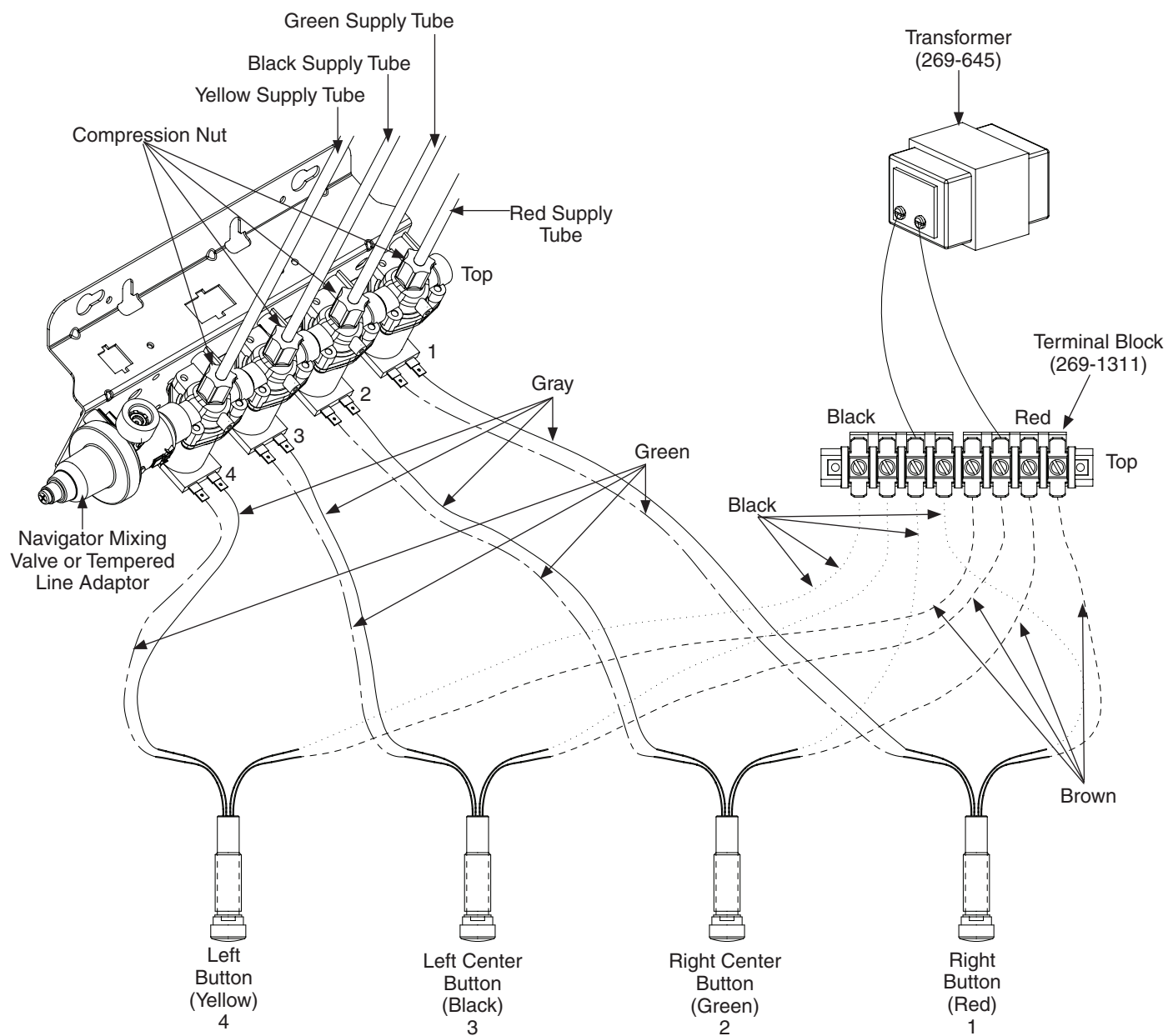
CAUTION: Turn off water supplies to unit before troubleshooting.

Problem	Cause	Solution
An individual operating station fails to shut off and drips.	There is debris trapped between the diaphragm and the valve seat.	Remove debris between diaphragm and the valve seat. 1. Remove the three #8 Phillips-head screws that hold the solenoid valve assembly together. Be careful not to lose the armature or spring. 2. Remove the diaphragm. Remove any particles that have been trapped between the diaphragm and the valve seat. Rinse off the diaphragm and inspect for damage. Make sure the center orifice and both small side orifices are open. 3. Reassemble in reverse order, being careful not to overtighten the Phillips-head screws or you may crack the plastic valve body. Tighten until the armature plate makes contact with the plastic body. 4. Reconnect the wiring per the appropriate diagram on next 4 pages.
An individual operating station fails to turn on.	A failed coil for the valve or loose electrical connection to the terminal.	Test the station to determine cause. 1. Disconnect the wires from the coil of an adjacent valve. Disconnect the wires from the problem valve and reconnect to the adjacent valve. 2. Turn on electrical and water supplies to the unit. Pass your hand in front of the sensor of the problem station, and the adjacent station should turn on. a. If the adjacent station turns on and cycles normally, replace the coil on the problem valve. b. If the adjacent valve fails to turn on, inspect the wires from the sensor cable and do the following: • make sure there are no breaks and that the fully insulated disconnect terminals are firmly crimped in place; • turn off the electrical and water supplies; • reconnect to the adjacent valve and turn on the water supplies to the unit; • pass your hand in front of the sensor. If the station still fails to turn on, replace the sensor.

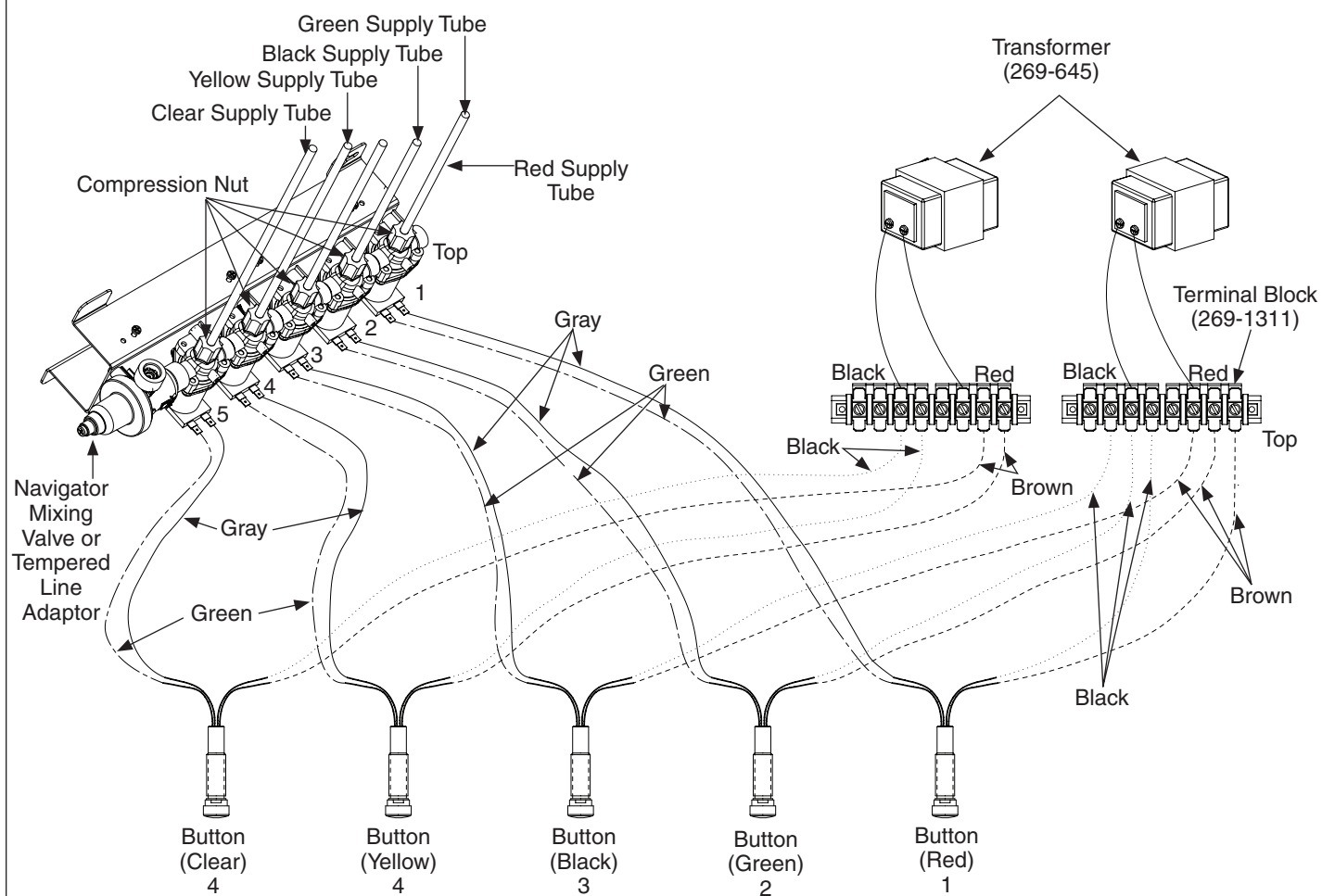
Infrared (TT) SN2003, SN2023, SN2013, SN2033 Wiring Diagram



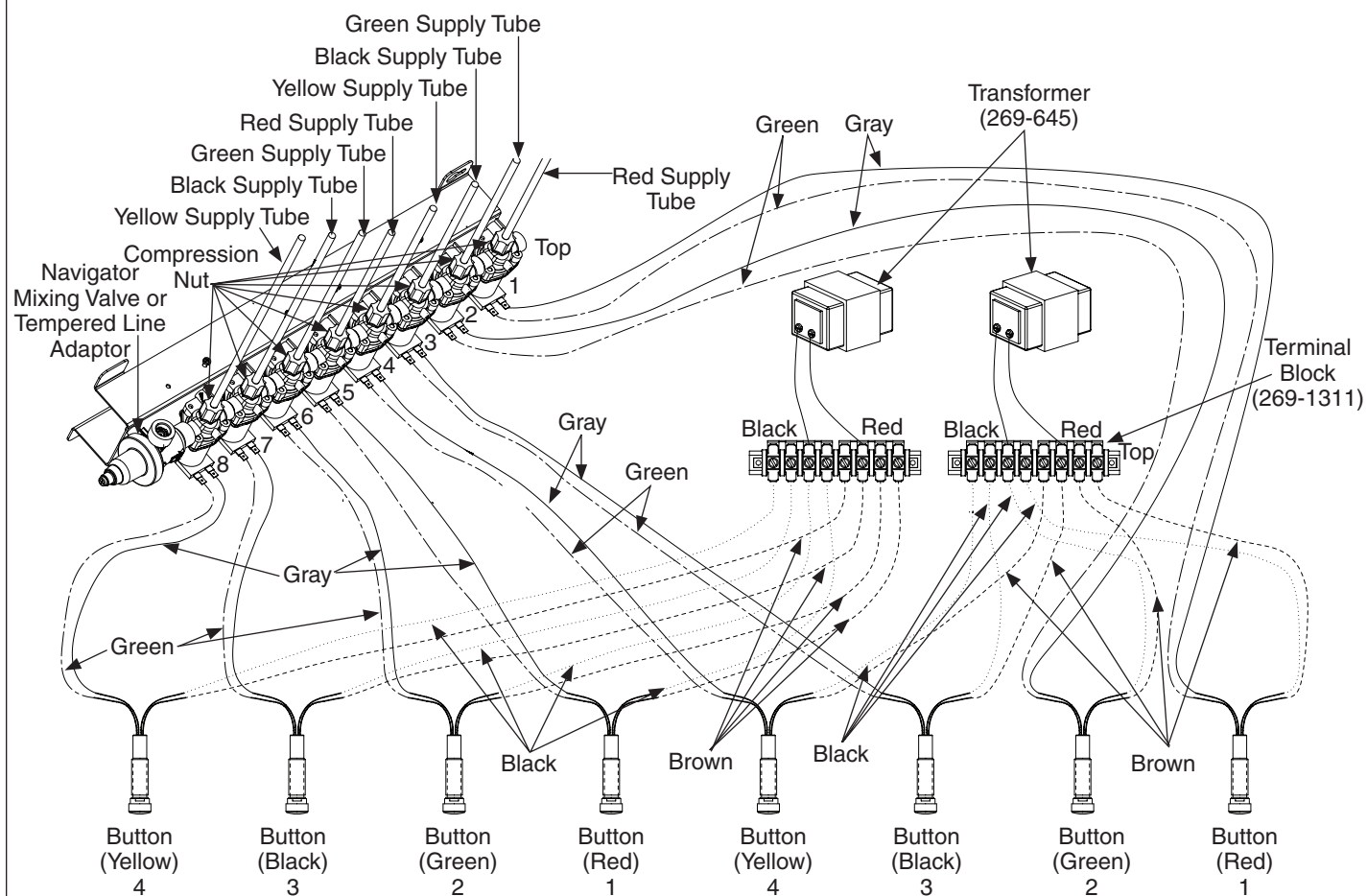
Infrared (TT) SN2004, SN2024 Wiring Diagram



Infrared (TT) SN2005 Wiring Diagram



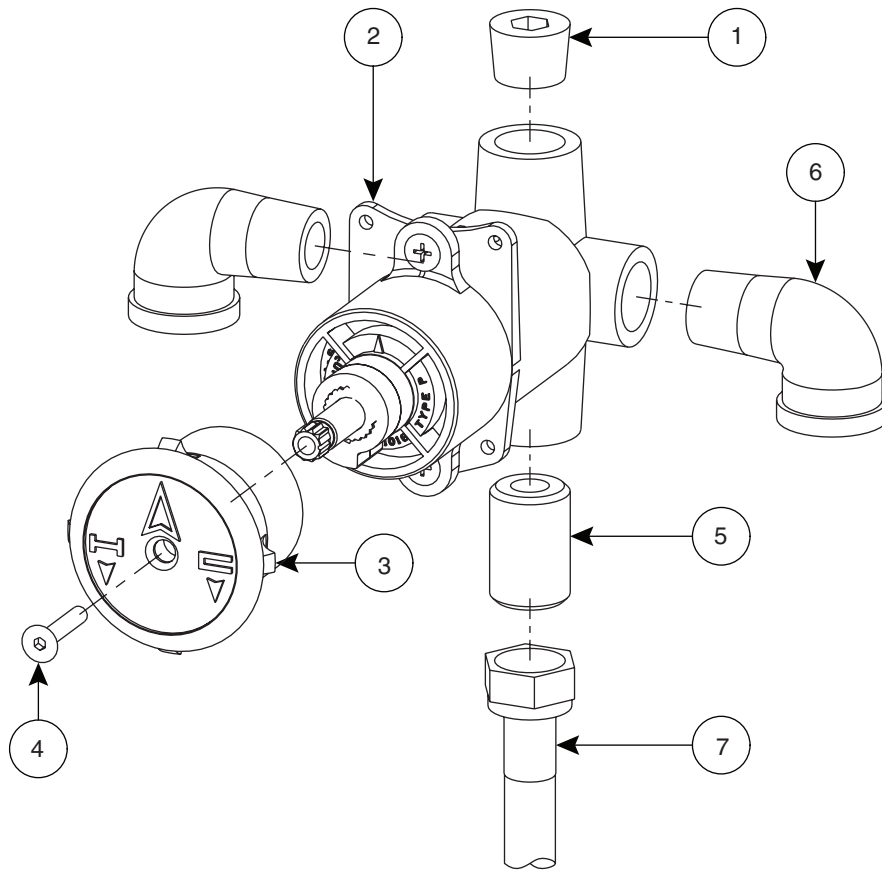
Infrared (TT) SN2008 Wiring Diagram



Sentry Transformers

		Part Number	Qty.
SN2003	36" Semi-Circular – Floor Mounted	S45-2045	1
SN2004	54" Semi-Circular – Floor Mounted	S45-2045	1
SN2023	36" Semi-Circular – Wall Mounted	S45-2045	1
SN2024	54" Semi-Circular – Wall Mounted	S45-2045	1
SN2005	36" Circular – Floor Mounted	S45-2045	2
SN2008	54" Circular – Floor Mounted	S45-2045	2
SN2013	54" Corner – Floor Mounted	S45-2045	1
SN2033	54" Corner – Wall Mounted	S45-2045	1

Supply Valves — Pressure Balancing Complete Assembly



Parts List — Supply Valve S67-516

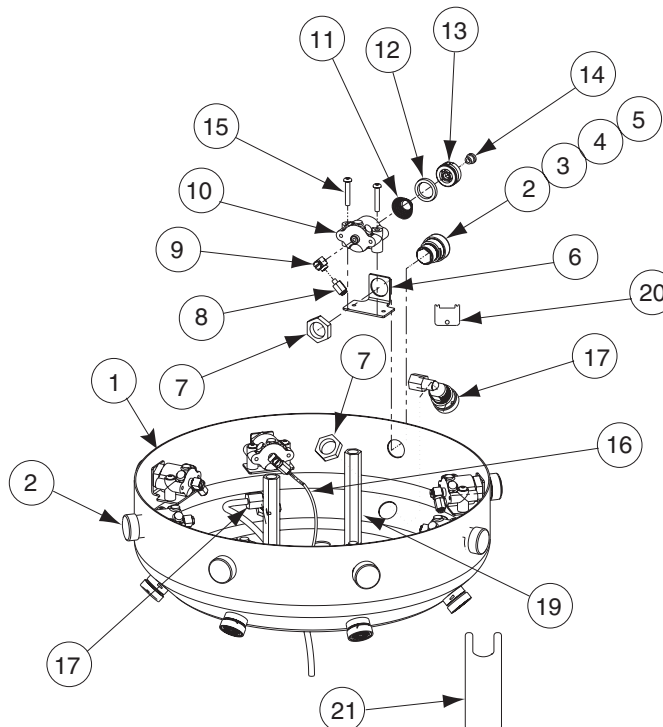
Item	Part No.	Description	Qty.
1	169-168	Pipe Plug	1
2	S67-594	PBV Valve	1
3	128-032	Handle for Valve	1
4	160-214	Screw for Handle	1
5	113-339	Nipple 1/2"	1
6	169-639	Elbow	2
7	269-1735	Stainless Steel Flex Hose	1

Air Metering Valve (AST4) — Hand Pushbutton and Sprayhead

Pushbutton Replacement

CAUTION: Turn off water supplies before replacing the pushbutton.

1. Remove the sprayhead cover by removing the two screws holding the cover to the sprayhead module.
2. Inside sprayhead, unscrew the two screws that hold the actuator body to the bracket being careful of the spring that will release.
3. Unscrew and remove the coupling if necessary.
4. Unscrew and remove the brass nut if necessary. This will allow the pushbutton assembly to be removed.
5. Carefully take apart the assembly and replace the parts as needed.
6. After replacement is complete, reassemble the pushbutton and sprayhead as shown.

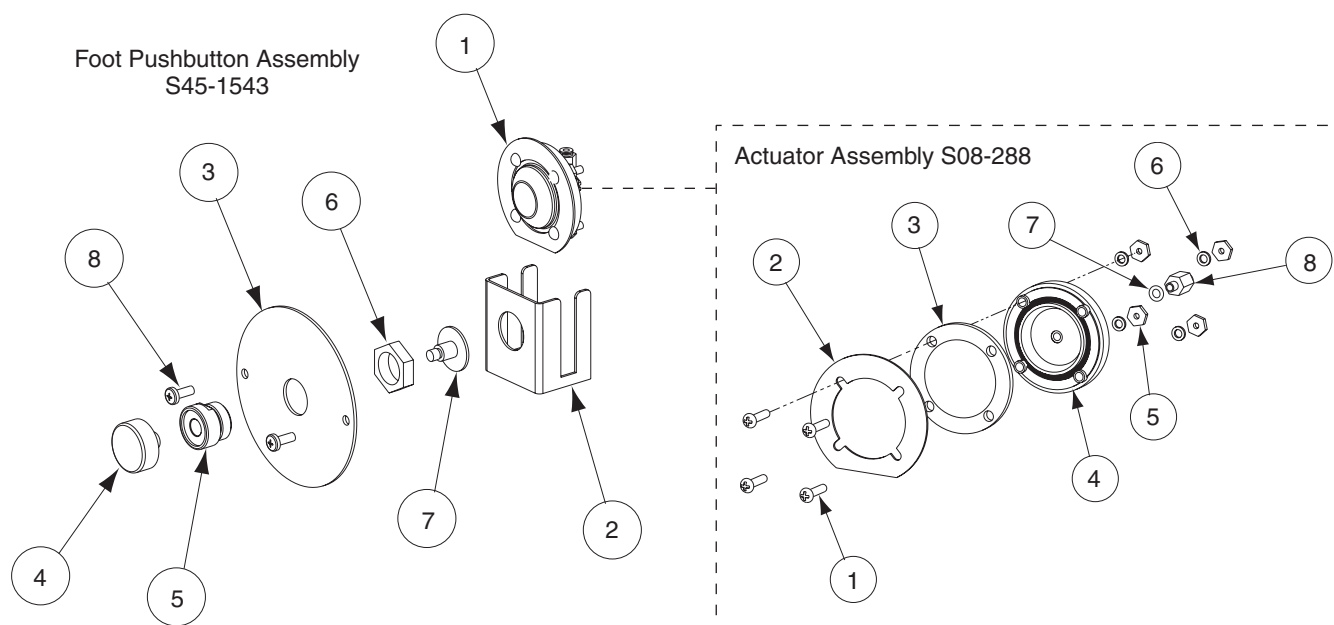


Parts List — Pushbutton

Item	Part No.	Description	54" Corner Qty.	36" Semi Qty.	54" Semi Qty.	36" Circle Qty.	54" Circle Qty.
1	—	Shell	1	1	1	1	1
2	S08-324	Pushbutton Assy. (includes items 3–5)	3	3	4	5	8
3	128-090	Pushbutton Only	3	3	4	5	8
4	179-102	Guide for Pushbutton	3	3	4	5	8
5	147-033	Screw for Pushbutton	3	3	4	5	8
6	140-743	Bracket - Actuator	3	3	4	5	8
7	110-115	Nut 1/2"-14	3	3	4	5	8
8	169-890	Connector 1/8" tube x 10-32 Thd.	3	3	4	5	8
9	269-1186	"L" Fitting Adjustable	3	3	4	5	8
10	118-279	Actuator Body	3	3	4	5	8
11	135-065	Spring	3	3	4	5	8
12	125-099	U-Cup for piston	3	3	4	5	8
13	119-227A	Piston	3	3	4	5	8
14	198-010	Duckbill	3	3	4	5	8
15	160-165	Screw - Body mounting	6	6	8	10	16
16	R68-600008	Tubing 1/8" OD (specify length in feet)	—	—	—	—	—
*17	S05-157	Aerator Assembly (Std 0.5 GPM)	3	3	4	5	8
19	161-082	Nut - Extension 1/4"-20 x 5-1/8"	2	2	2	2	2
20	130-149	Spanner Wrench for Aerator - After August 2014	1	1	1	1	1
20	130-141	Spanner Wrench for Aerators - Before August 2014	1	1	1	1	1
21	130-023	Spanner Wrench for Pushbuttons	1	1	1	1	1

① Prepack S65-168A * See page 5 for additional information

Air Metering Valve (AST4-F) — Foot Pushbutton and Actuator



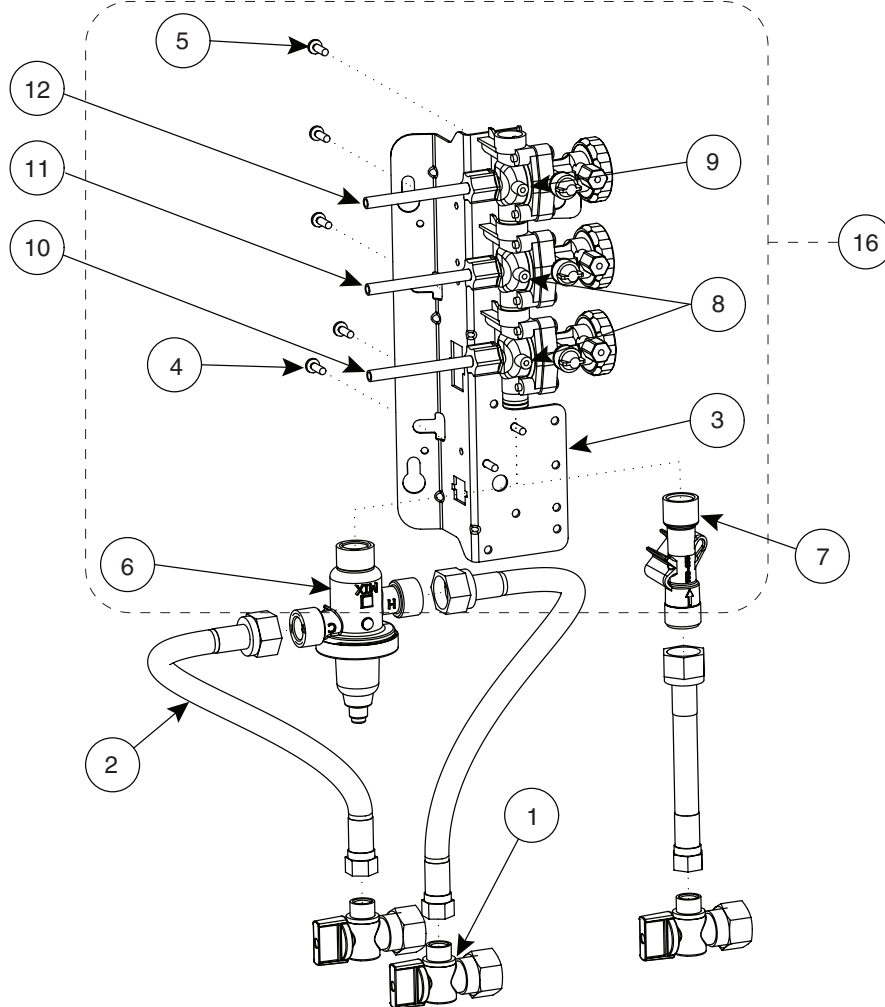
Parts List — Foot Pushbutton Assembly (S45-1543)

Item	Part No.	Description	Qty.
1	S08-288	Actuator Assy.	1
2	140-604	Bracket	1
3	150-198	Escutcheon	1
4	128-090	Pushbutton	1
5	179-071	Pushbutton Guide	1
6	110-115	Nut 1/2"-14	1
7	119-132	Plunger	1
8	160-245	Screw for escutcheon	2

Parts List — Actuator Assembly (S08-288)

Item	Part No.	Description	Qty.
1	160-276	Screw 8-32 x 3/4"	4
2	140-493	Mounting Plate	1
3	269-612	Diaphragm	1
4	269-613	Back Plate	1
5	161-062	Nut 8-32	4
6	142-002CR	Washer #8 lock	4
7	125-001CZ	O-Ring	1
8	169-890	Fitting - tube connector 10-32 x 1/8"	1

Air Metering Valve (AST4) Part 1 — Assembly and Components

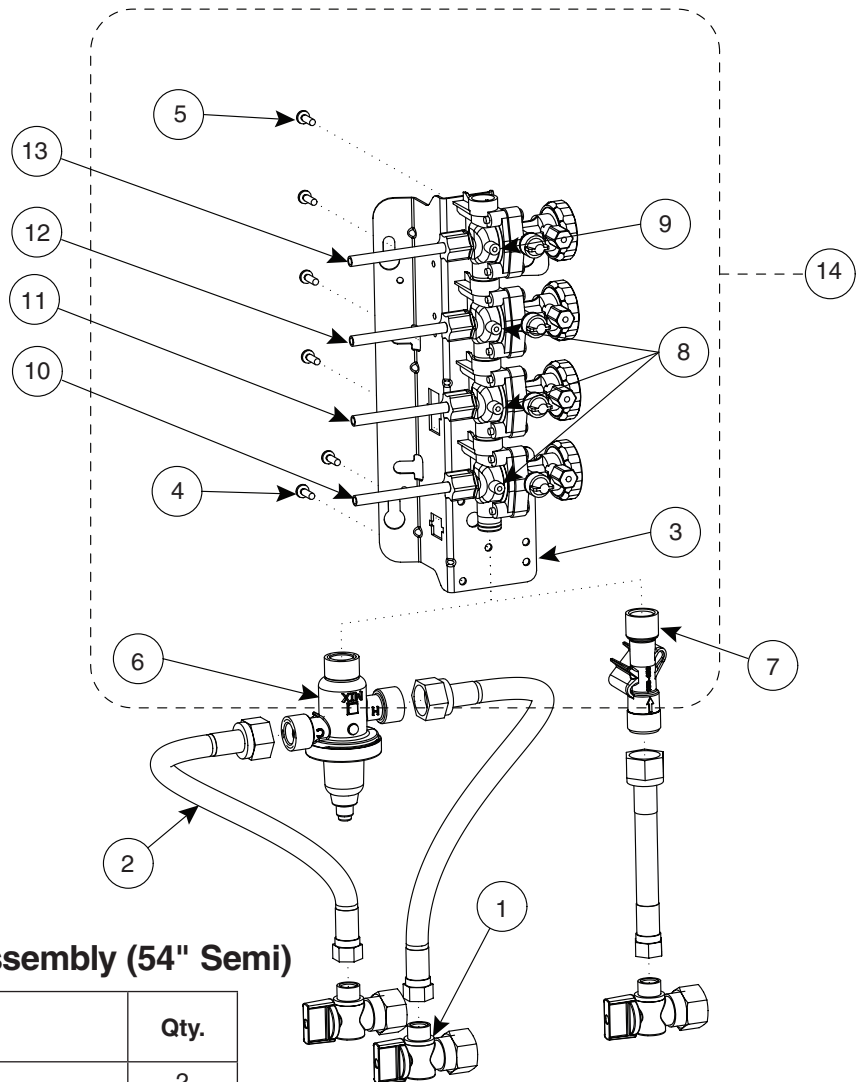


Parts List — Air Metering Valve Assembly (54" Corner and 36" Semi)

Item	Part No.	Description	54" Corner Qty.	36" Semi Qty.
1	S27-340	Stop Valve	2	2
2	269-2053	Flex Hose	2	2
3	140-928	Bracket	1	1
4	P18-054	Screw #10-24 x 3/8	2	2
5	160-447	Screw #8-16 x 5/8	3	3
6	S01-526	Thermostatic Mixing Valve	1	1
7	S39-804	Adapter (Optional Single Tempered Line)	1	1
8	S07-077A	AST4 Valve, through body (Gray)	2	2
9	S07-077	AST4 Valve, closed body (Black)	1	1
10	R68-600011-B	Tubing 1/4 OD Black	*	*
11	R68-600011-G	Tubing 1/4 OD Green	*	*
12	R68-600011-R	Tubing 1/4 OD Red	*	*
13	R68-600008-B	Tubing 1/8 OD Black	*	*
14	R68-600008-G	Tubing 1/8 OD Green	*	*
15	R68-600008-R	Tubing 1/8 OD Red	*	*
16	S08-1443TMA	Valve Assembly AST	1	1

* Specify Length in feet.

Air Metering Valve (AST4) Part 1 — Assembly and Components

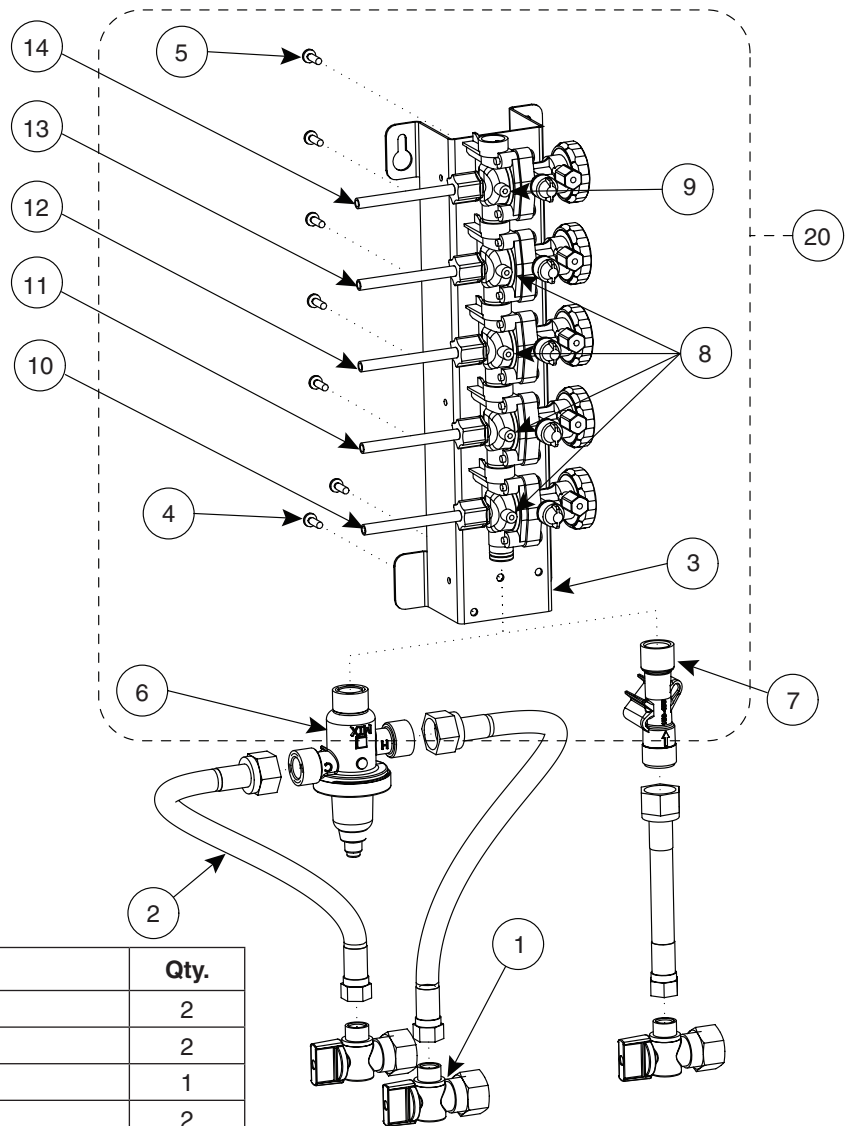


Parts List — Air Metering Valve Assembly (54" Semi)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-928	Bracket	1
4	P18-054	Screw #10-24 x 3/8	2
5	160-447	Screw #8-16 x 5/8	4
6	S01-526	Thermostatic Mixing Valve	1
7	S39-804	Adapter (Optional Single Tempered Line)	1
8	S07-077A	AST4 Valve, through body (Gray)	3
9	S07-077	AST4 Valve, closed body (Black)	1
10	R68-600011-Y	Tubing 1/4 OD Yellow	*
11	R68-600011-B	Tubing 1/4 OD Black	*
12	R68-600011-G	Tubing 1/4 OD Green	*
13	R68-600011-R	Tubing 1/4 OD Red	*
14	R68-600008-Y	TUBING 1/8 OD YELLOW	*
15	R68-600008-B	TUBING 1/8 OD BLACK	*
16	R68-600008-G	TUBING 1/8 OD GREEN	*
17	R68-600008-R	TUBING 1/8 OD RED	*
18	S08-1444TMA	Valve Assembly AST4	1

* Specify Length in feet.

Air Metering Valve (AST4) Part 1 — Assembly and Components

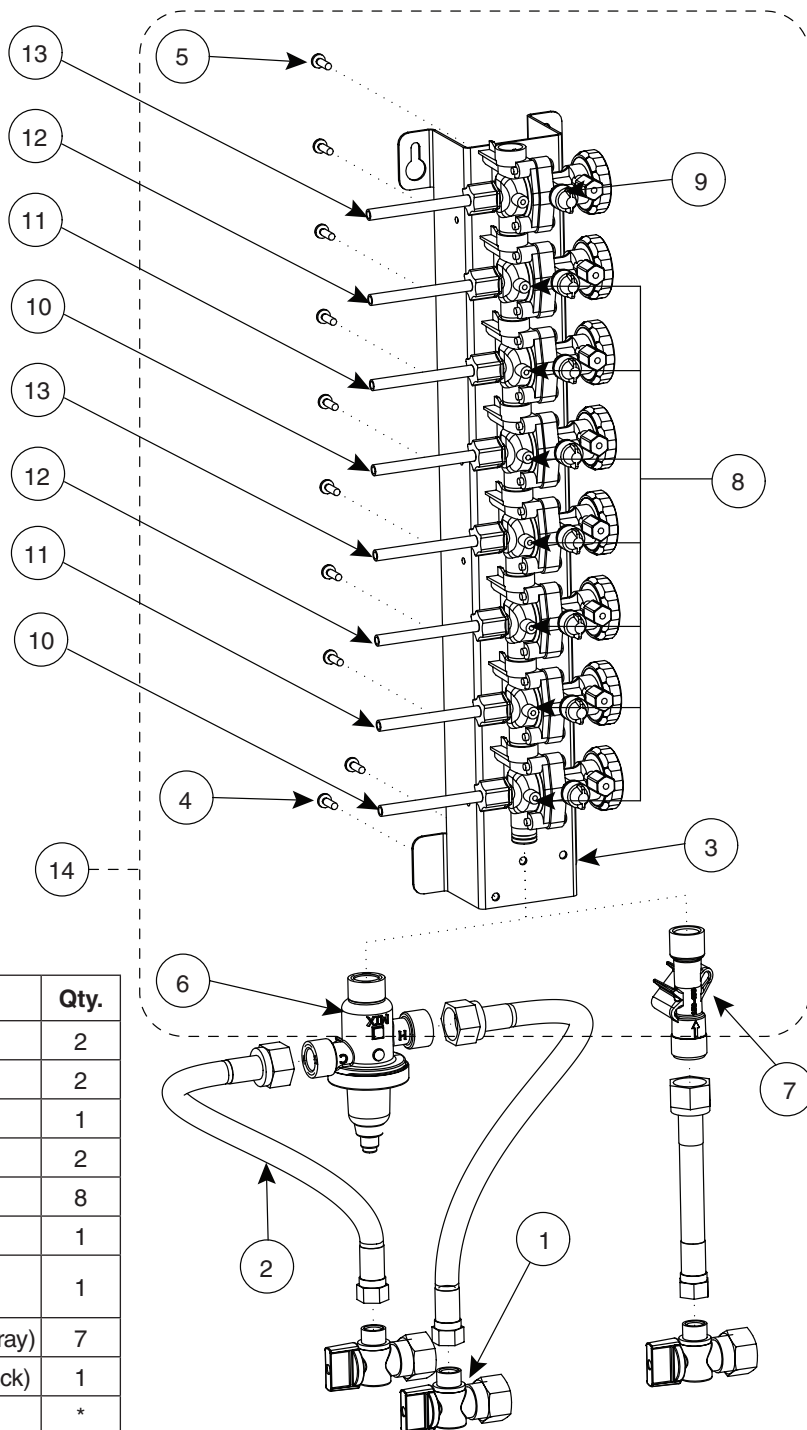


Parts List — Air Metering Valve Assembly (36" Circle)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-940	Bracket	1
4	P18-054	Screw #10-24 x 3/8	2
5	160-447	Screw #8-16 x 5/8	5
6	S01-526	Thermostatic Mixing Valve	1
7	S39-804	Adapter (Optional Single Tempered Line)	1
8	S07-077A	AST4 Valve, through body (Gray)	4
9	S07-077	AST4 Valve, closed body (Black)	1
10	R68-600011-Y	Tubing 1/4 OD Yellow	*
11	R68-600011-B	Tubing 1/4 OD Black	*
12	R68-600011-G	Tubing 1/4 OD Green	*
13	R68-600011-R	Tubing 1/4 OD Red	*
14	R68-600011	Tubing 1/4 OD Clear	*
15	R68-600008-Y	Tubing 1/8 OD Yellow	*
16	R68-600008-B	Tubing 1/8 OD Black	*
17	R68-600008-G	Tubing 1/8 OD Green	*
18	R68-600008-R	Tubing 1/8 OD Red	*
19	R68-600008	Tubing 1/8 OD Clear	*
20	S08-1445TMA	Valve Assembly AST4	1

* Specify Length in feet.

Air Metering Valve (AST4) Part 1 — Assembly and Components



Parts List — Air Metering Valve Assembly (54" Circle)

Item	Part No.	Description	Qty.
1	S27-340	Stop Valve	2
2	269-2053	Flex Hose	2
3	140-941	Bracket	1
4	P18-054	Screw #10-24 x 3/8	2
5	160-447	Screw #8-16 x 5/8	8
6	S01-526	Thermostatic Mixing Valve	1
7	S39-804	Adapter (Optional Single Tempered Line)	1
8	S07-077A	AST4 Valve, through body (Gray)	7
9	S07-077	AST4 Valve, closed body (Black)	1
10	R68-600011-Y	Tubing 1/4 OD Yellow	*
11	R68-600011-B	Tubing 1/4 OD Black	*
12	R68-600011-G	Tubing 1/4 OD Green	*
13	R68-600011-R	Tubing 1/4 OD Red	*
14	R68-600008-Y	Tubing 1/8 OD Yellow	*
15	R68-600008-B	Tubing 1/8 OD Black	*
16	R68-600008-G	Tubing 1/8 OD Green	*
17	R68-600008-R	Tubing 1/8 OD Red	*
18	S08-1448TMA	Valve Assembly AST4	1

* Specify Length in feet.

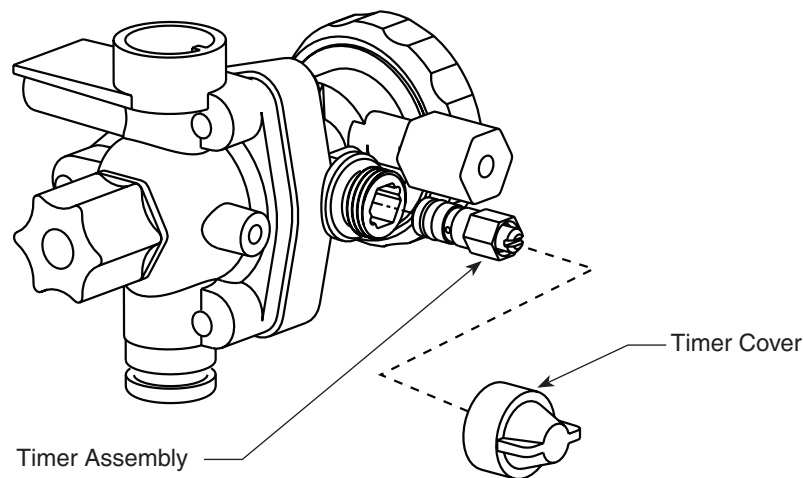
Air Metering Valve (AST4) Part 1 — Adjustment

Adjusting Air Metering Valve (Hand-operated pushbutton only)

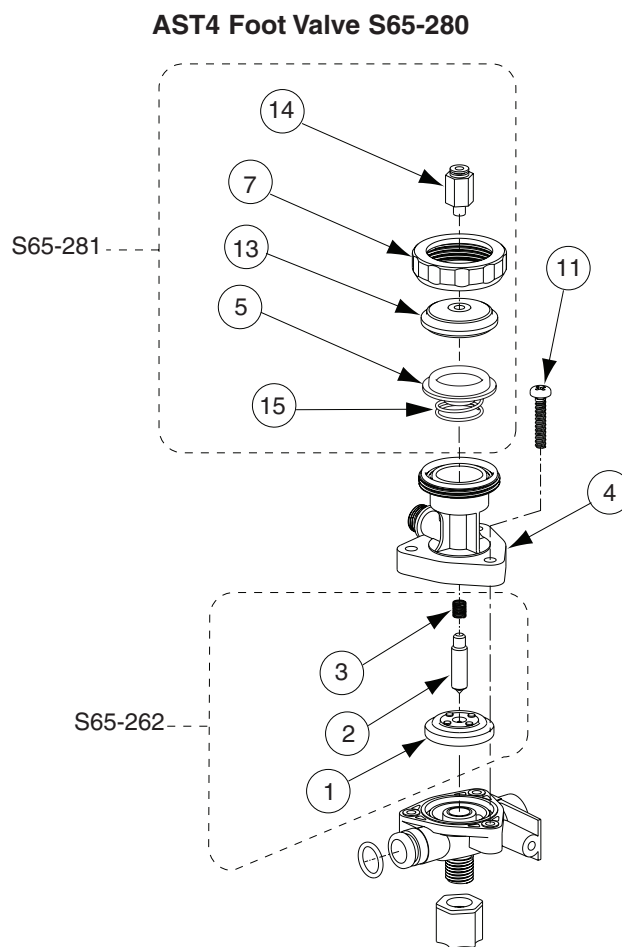
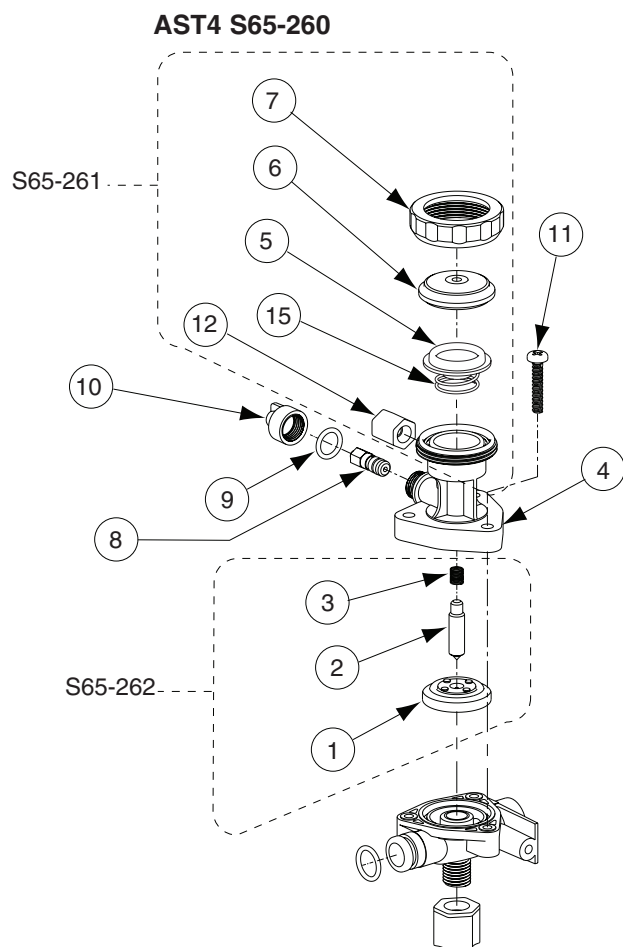
 The air valve timer is located next to the tube connector on the air valve body. The timer is capped with a filter to prevent dirt build-up on the timer. The air valve timing can be adjusting from 0–45 seconds.

1. Adjust the metering timing, if necessary, as outlined below:

- Unscrew the timer cover and use a screwdriver to tighten or loosen the timer. Turning the timer clockwise increases the time; turning the timer counterclockwise decreases the time. Be careful not to overtighten as the timer seat can be damaged.
- Continue to adjust until the timer is set at desired length.
- Replace the timer cover over the timer.



Air Metering Valve (AST4) Part 2 — Assembly and Components

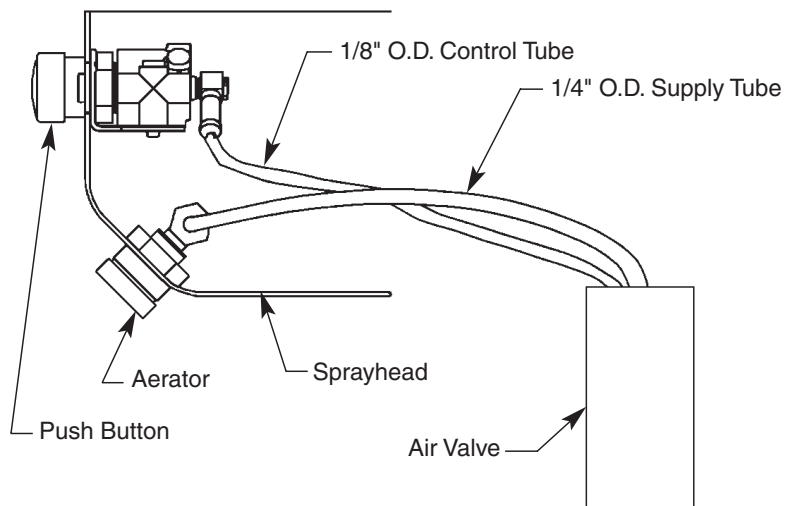


AST4 Valve Parts List

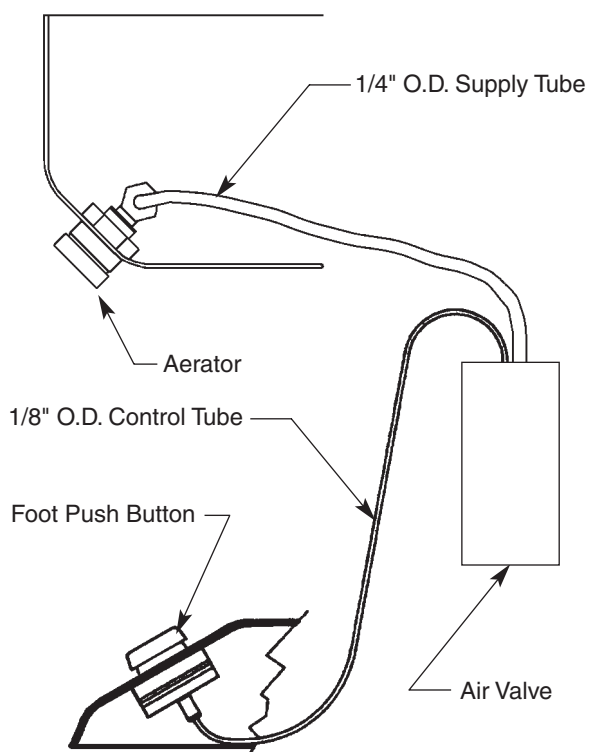
Item	Description	AST4 Valve S65-260	Repair Kit (Upper) S65-261	Repair Kit (Lower) S65-262	AST4 Foot Valve S65-280	Repair Kit Foot (Upper) S65-281
1	Diaphragm	1	—	1	1	—
2	Armature	1	—	1	1	—
3	Spring	1	—	1	1	—
4	AST4 Valve Upper Body	1	—	—	1	—
5	Magnet / Diaphragm Assembly	1	1	—	1	1
6	AST4 Valve Cover	1	1	—	—	—
7	AST4 Valve Clamp Nut	1	1	—	1	1
8	AST4 Valve Timer Assembly	1	—	—	—	—
9	O-Ring (-012)	1	—	—	—	—
10	AST4 Valve Timer Cover	1	—	—	—	—
11	Screw, #8 x 7/8"	3	—	—	3	—
12	Compression Nut, 1/8" Tube	1	1	—	—	—
13	AST4 Valve Cover Foot	—	—	—	1	1
14	Tube Connector	—	—	—	1	1
15	Compression Spring, AST4	1	1	—	1	1

Control Valve Illustrations

Hand Control Only



Foot Control Only



Troubleshooting Air Metering Valve Hold-Open Foot Control (AST4-F)

Problem	Cause	Solution
One or more individual operating stations fail to turn on.	Incoming water pressure is over 80 PSIG.	Reduce water pressure to below 80 PSIG. 1. Install a pressure-reducing valve at the building main set to the manufacturer's recommendations. Lower line pressure will improve the performance and extend the life of all the plumbing in the building.
An individual operating station turns off while the foot button is depressed.	Air tube connection leak.	Check 1/8" tubing connection. 1. Tighten compression nut at 1/8" tubing connection to air valve in pedestal. 2. If leak persists, remove the two screws securing the foot button escutcheon and check the 1/8" elbow tube connection behind the pushbutton assembly. Make sure the screw holding the elbow is tight and the fitting in the elbow is firmly hand tightened. Make sure the tubing is pushed firmly into the fitting. 3. If leak persists, reseal the 1/8" tubing. Disconnect the tubing from the fitting by pressing down on the plastic ring at the top of the fitting while firmly pulling the tubing out of the fitting. Trim 1/2" off the end of the tubing squarely with a razor-sharp knife and push the tubing firmly back into the connector to make it is seated. 4. If the leak still persists, loosen the compression nut on the air valve inside the pedestal and pull the tubing out of the fitting. Trim 1/2" off the end of the tubing squarely, with a razor-sharp knife. Then slide the tubing through the nut until 1/2" of tubing is exposed. Insert tubing into the compression fitting on the valve body and hand tighten the compression nut.
An individual operating station fails to turn on.	A failed diaphragm/magnet assembly.	Test the station to determine cause. 1. Unscrew the valve clamp nut on the top of the valve. (See Page 23). 2. Remove valve cover. If the diaphragm/magnet assembly comes out with the cover, gently peel the diaphragm away from the cover, taking care not to damage the diaphragm. Inspect the diaphragm for any holes or tears. A damaged diaphragm needs to be replaced. 3. Insert the diaphragm/magnet assembly back into the valve, but leave the cover off. 4. Gently press the diaphragm until it is fully depressed. The valve should activate. If not, the diaphragm/magnet assembly needs to be replaced.

Troubleshooting Air Metering Valve Hand Control (AST4)

CAUTION: Turn off water supplies to unit before troubleshooting.

Problem	Cause	Solution
One or more individual operating stations fail to turn on.	Incoming water pressure is over 80 PSIG.	Reduce water pressure to below 80 PSIG. 1. Install a pressure-reducing valve at the building main set to the manufacturer's recommendations. Lower line pressure will improve the performance and extend the life of all the plumbing in the building.
An individual operating station fails to turn on.	A failed diaphragm/magnet assembly.	Test the station to determine cause. 1. Unscrew the valve clamp nut on the top of the valve (see Page 23). 2. Remove valve cover. If the diaphragm/magnet assembly comes out with the cover, gently peel the diaphragm away from the cover, taking care not to damage the diaphragm. Inspect the diaphragm for any holes or tears. A damaged diaphragm needs to be replaced. 3. Insert the diaphragm/magnet assembly back into the valve, but leave the cover off. 4. Gently press the diaphragm until it is fully depressed. The valve should activate. If not, the diaphragm/magnet assembly needs to be replaced.
One or more individual operating stations turn off too quickly or run too long.	Timing Requires adjustment.	Readjust timing (see Page 22).
An individual operating station cannot be adjusted to run for more than five seconds.	Air tube connection leak.	Check 1/8" tubing connection. 1. Tighten compression nut at 1/8" tubing connection to air valve in pedestal. 2. If leak persists, remove the sprayhead cover and check the 1/8" elbow tube connection behind the pushbutton assembly. Make sure the screw holding the elbow is tight and the fitting in the elbow is firmly hand tightened. Make sure the tubing is pushed firmly into the fitting. 3. If leak persists, reseal the 1/8" tubing. Disconnect the tubing from the fitting by pressing down on the plastic ring at the top of the fitting while firmly pulling the tubing out of the fitting. Trim 1/2" off the end of the tubing squarely with a razor-sharp knife and push the tubing firmly back into the connector to make sure it is seated. 4. If the leak still persists, loosen the compression nut on the air valve inside the pedestal and pull the tubing out of the fitting. Trim 1/2" off the end of the tubing squarely, with a razor-sharp knife. Then slide the tubing through the nut until 1/2" of tubing is exposed. Insert tubing into the compression fitting on the valve body and hand tighten the compression nut.
An individual operating station won't turn off and drips.	There is debris trapped between the diaphragm and valve seat.	Remove debris between the diaphragm and valve seat. 1. Remove the three Phillips-head screws that hold the air valve together. Be careful not to lose the armature or spring (see Page 23). 2. Remove the diaphragm. Remove any debris trapped between the diaphragm and the valve seat. 3. Rinse off the diaphragm and inspect for damage. Make sure the center orifice and the two small side orifices are open. 4. Reassemble in reverse order, being careful not to over tighten the Phillips-head screws or you may crack the plastic valve body. Tighten until the armature plate makes contact with the plastic body.
An individual station will not shut off.	Timing mechanism is clogged.	Clear the timing mechanism. 1. If the timer cover has been sprayed with water, wait at least two minutes. It will shut off and return to normal operation once it dries off. 2. If it doesn't turn off remove the timer cover. If the valve shuts off the cover is clogged and needs to be replaced. 3. If the valve still doesn't turn off, turn the adjusting screw counter clockwise until it can be removed from the valve body. 4. Wipe adjusting screw thoroughly with a lint-free towel making sure that there is no water or debris on the adjusting screw. 5. Use a pipe stem cleaner to wipe the inside of the timer body if possible. 6. Replace timer-screw and adjust valve timing. 7. Replace timer cover.

Thermostatic Mixing Valve Troubleshooting

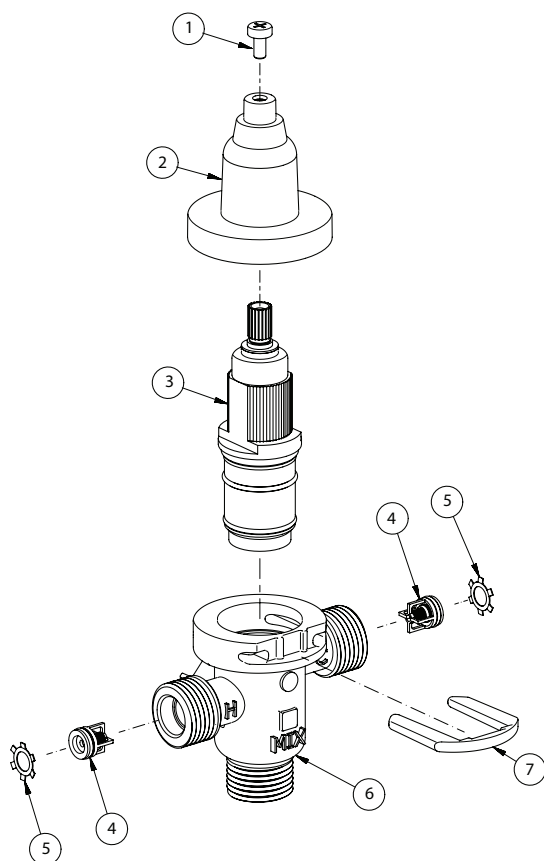
Before attempting to troubleshoot the valve or disassemble the components, check for the following conditions:

- If stop valves are used, make sure that they are fully open.
- Make sure that the hot and cold inlet pipes are connected properly, and that there are no cross-connections or leaking stop valves.
- Check the hot water heater output to make sure that it is at least 10° F above the set temperature.



Be sure to close the appropriate shut-off valves prior to disassembly of the valve and reopen the valves after inspection and repair is complete.

Problem	Cause	Solution
External leaks.	Damaged cartridge or O-rings.	Replace cartridge with part number 269-1927
Improper water temperature or temperature fluctuation.	Hot water supply is not 10° above desired set point.	Increase hot water supply temperature
	Valve temperature is not properly set.	Adjust the temperature. 1. Loosen the cap screw about 1/4" (4-6 turns) and lift up the cover (do not remove). 2. Using the cover, turn the cartridge gently until desired water temperature is reached. Do not turn past stops as this may damage the unit. Push the cover down and tighten the screw.
Limited water flow.	Dirt and debris have built up in the valve or strainer.	3. Check to make sure both hot and cold supplies are connected to the Navigator mixing valve and that they have water flow. 4. Remove cover and U-clip. Remove the cartridge and clean the strainer. It is not required to grease cartridge, however if desired, use silicone grease only. Do not use grease on check valves.



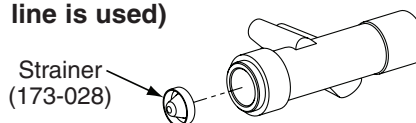
Parts List

Item	Part No.	Description	Quantity
			S59-4000
1	160-463	Cap Screw	1
2	107-582	Cover	1
3	269-1927	Thermostatic Cartridge	1
4	198-014	Check Valve*	2
5	132-051	Retaining Ring*	2
6	118-319	Valve Body	1
7	146-079	U-Clip	1

* Included with Prepack S65-326

Tempered Line Adapter Option Part no. S39-804

(replaces S59-4000 if tempered line is used)



Check Valve Troubleshooting Instructions

Problem	Solution
If water just dribbles or does not flow from sprayhead.	1. Close stop/check valves that supply water to the washfountain. 2. Inspect stop/check valves for proper installation. 3. Remove flexible hoses at stop/check valves and clean the strainers if necessary.
If water sprayhead delivers all hot or cold water.	1. Close stop/check valves that supply water to the washfountain. 2. Inspect stop/check valves for proper installation. 3. Remove flexible hoses at stop/check valves and clean the strainers if necessary. 4. Inspect mixing valve for proper installation. • Hot inlet is marked with an "H".

Care and Cleaning of Stainless Steel Sentry Washfountains

Stainless steel is extremely durable, and maintenance is simple and inexpensive. Proper care, particularly under corrosive conditions, is essential. Follow the cleaning instructions listed below:

- Ordinary deposits of dirt and grease are quickly removed with soap and water. Whenever possible, the metal should be thoroughly rinsed and dried after washing. To remove tightly adhering deposits, use stainless steel polishing powder. In all cases, rub in the direction of the stainless steel grain.



Never use ordinary steel wool or steel brushes on stainless steel. Always use stainless steel wool or stainless steel brushes.

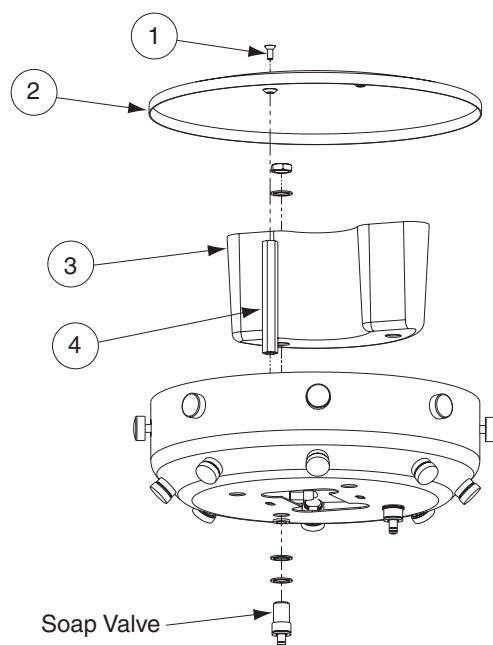
- Avoid prolonged contact with chlorides, bromides, thiocyanates, and iodides on stainless steel equipment, especially if acid conditions exist.
- Do not permit salty solutions to evaporate and dry on stainless steel.
- The appearance of rust streaks on stainless steel leads to the belief that the stainless steel is rusting. Look for the actual source of the rust in some iron or steel particles which may be touching, but not actually a part of the stainless steel structure. ***NOTE: Strongly acidic or caustic cleaners may attack the steel causing a reddish film to appear. The use of these cleaners should be avoided.***

Soap System

Parts List — Sprayhead Cover and Soap System

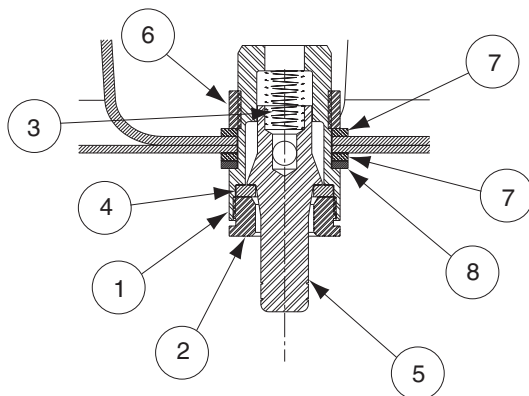
Item	Part No.	Description	Qty.
1	160-154	Screw for cover	2
2	—	Cover - Call for part number	1
3	133-134	Tank (1 per semi, 2 per circle)	1 or 2
4	161-082	Nut - Extension 1/4"-20 x 5-1/8" for cover	2
*	153-330	Plug Button - to plug soap valve holes	2 or 4

* Not illustrated.



Parts List — Soap Valve S09-007

Item	Part No.	Description	Qty.
1	S09-007	Soap Valve - Valve only (Items 2-6)	1
1	S09-007S	Soap Valve - Valve w/ Attaching Hardware (Items 2-9)	1
2	118-025	Valve Body	1
3	110-007	Packing Nut	1
4	135-001L	Spring	1
5	125-001BU	Washer - Rubber	1
6	119-028	Plunger	1
7	161-014	Nut	1
8	124-001BV	Washer - Fiber	1
9	142-002AH	Washer - Stainless Steel	1



This soap valve delivers soap with each upward stroke. This soap valve is not suited for lotion soaps.



Lotion soap will clog liquid soap valves.

Soap System

Soap Recommendations

Quality soap dispensers require good quality soap and periodic maintenance to properly operate. Bradley soap dispensers will provide dependable, consistent operation over the long term when soap with reasonable viscosity and pH levels are used and when a minimal amount of periodic maintenance is performed on the valves.

Soap thickness is determined by a measurement called viscosity. Soap viscosity should be between 100 cps (centerpoise) and 2500 cps for all Bradley soap dispensers. Thinner soaps are perceived by the users as being "watered down" so users tend to take more than they need, resulting in waste. **Thick soaps flow slower and inhibit the "flushing" action of the valves, which allows the soap to congeal in the valve and cause clogs.**

The pH (acid) level of the soap should be in the range of 6.5 to 8.5. More acidic soaps (pH levels lower than 6.5) will corrode metal parts (even stainless steel!!) and degrade rubber and plastic components. They will also cause skin irritation. **Most inexpensive soaps (typically the pink lotion type) fall into this acidic category and will eventually cause valve failure and metal corrosion.** Base soaps (pH levels higher than 8.5) will cause swelling or degradation of rubber and plastic parts and skin irritation.

Generally, any quality soap meeting the viscosity and pH guidelines above will work well with Bradley soap dispensers. PCMX or Isopropanol based antibacterial soaps (within viscosity and pH limits) will also work with Bradley dispensers. Soaps satisfying these basic guidelines will provide consistent flow and reduce clogs.

Most soap dispenser problems are caused by soap that is too thick or corrosive, or by a lack of maintenance. Many soaps come in concentrate form which must be diluted with water. Often, the soap is improperly diluted or used straight out of the bottle, which causes clogging and valve failure. If proper soap is being used, valves that have never been cleaned are usually the source of dispensing problems. Bradley has entered into an agreement with Champion Brand Products to provide additional customer service for purchasers of our dispensers regarding soap issues. They are very helpful and can get to the bottom of almost any soap dispenser related problem. They also sell an excellent "Bradley approved" soap. Please see **Soap Instruction Sheet 215-1286** for details about soap valve cleaning or how to contact Champion. With proper maintenance and soap, Bradley dispensers will provide long term, trouble free operation.

Soap Dispenser Maintenance Instructions for Sentry Washfountains

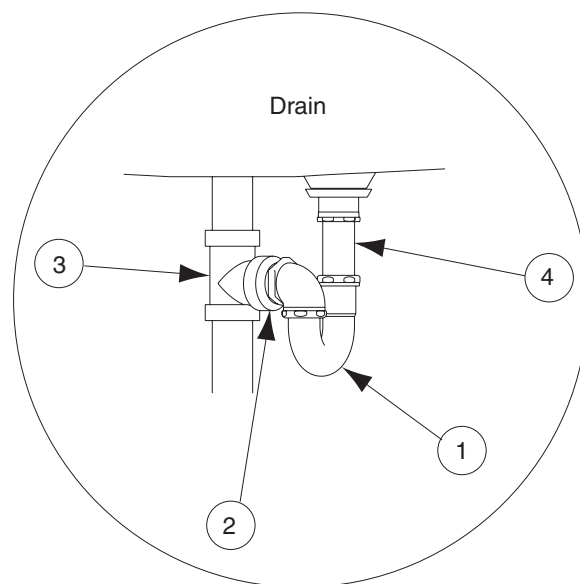
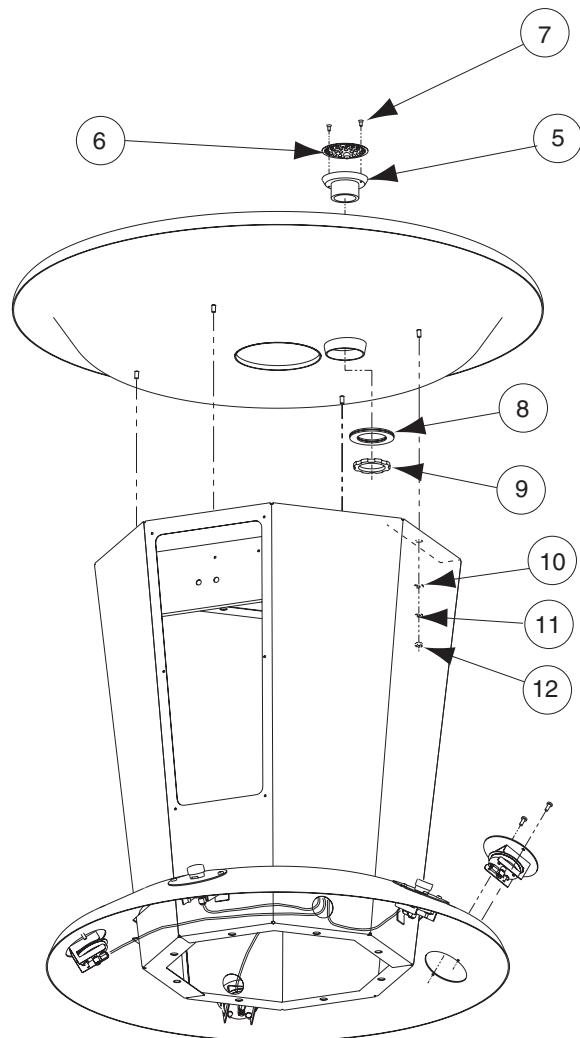
Bradley soap dispensers will provide dependable, consistent operation over the long term when the proper soap is used and when a minimal amount of periodic maintenance is performed on the valves. Valves must be maintained (cleaned) to function properly.

To ensure proper operation of your soap dispenser, follow these instructions:

- Once per month, remove the cap from the soap tank and insert the draw tube (below the cap) into hot water and soak it for 30 minutes.
- Push valve at least 20 times while it is soaking.
- Flush soap reservoir with hot water while valve is soaking.

In cases of extreme clogging, the valve should be disassembled and the parts should be soaked in hot water or cleaning solution to restore proper functioning. Soap dispensers that will not be used for extended periods of time (schools during summer break, etc.) should be drained, cleaned and left empty until put back into service. Soap left on the outside of dispensers can cause discoloration and corrosion of the reservoir (even on stainless steel units). All soap should be wiped or scrubbed off daily, then the outside of the dispenser should be rinsed with clear water and dried with a soft cloth.

Pedestal Assembly — Access Panels, Bowl Hardware, Drain Parts



Parts List — Access Panel

Model No.	Part No.	Height	Qty.
SN2003	186-1207	STD/JUV	1
SN2004	186-1207	STD/JUV	1
SN2005	186-1202	STD/JUV	2
SN2008	186-1202	STD/JUV	2
SN2013	186-1397	STD/JUV	1
SN2023	186-1207	WALL	1
SN2024	186-1207	WALL	1
SN2033	186-1397	WALL	1

Access Panel Screws, #10-24 x 1/2" long (P/N 160-120)

Parts List— Drain

Item	Part No.	Description	Qty.
1	S29-021	P-Trap 1-1/2"	1
2	113-731	Close Nipple 1-1/2"	1
3	269-557	Tee-Y 1-1/2"	1
4	S29-083	Tailpiece 1-1/2"	1
5	112-028	Drain Spud	1
6	173-002	Strainer	1
7	160-042	Screw for strainer	2
8	142-063	Washer for spud	1
9	161-148	Nut for spud	1

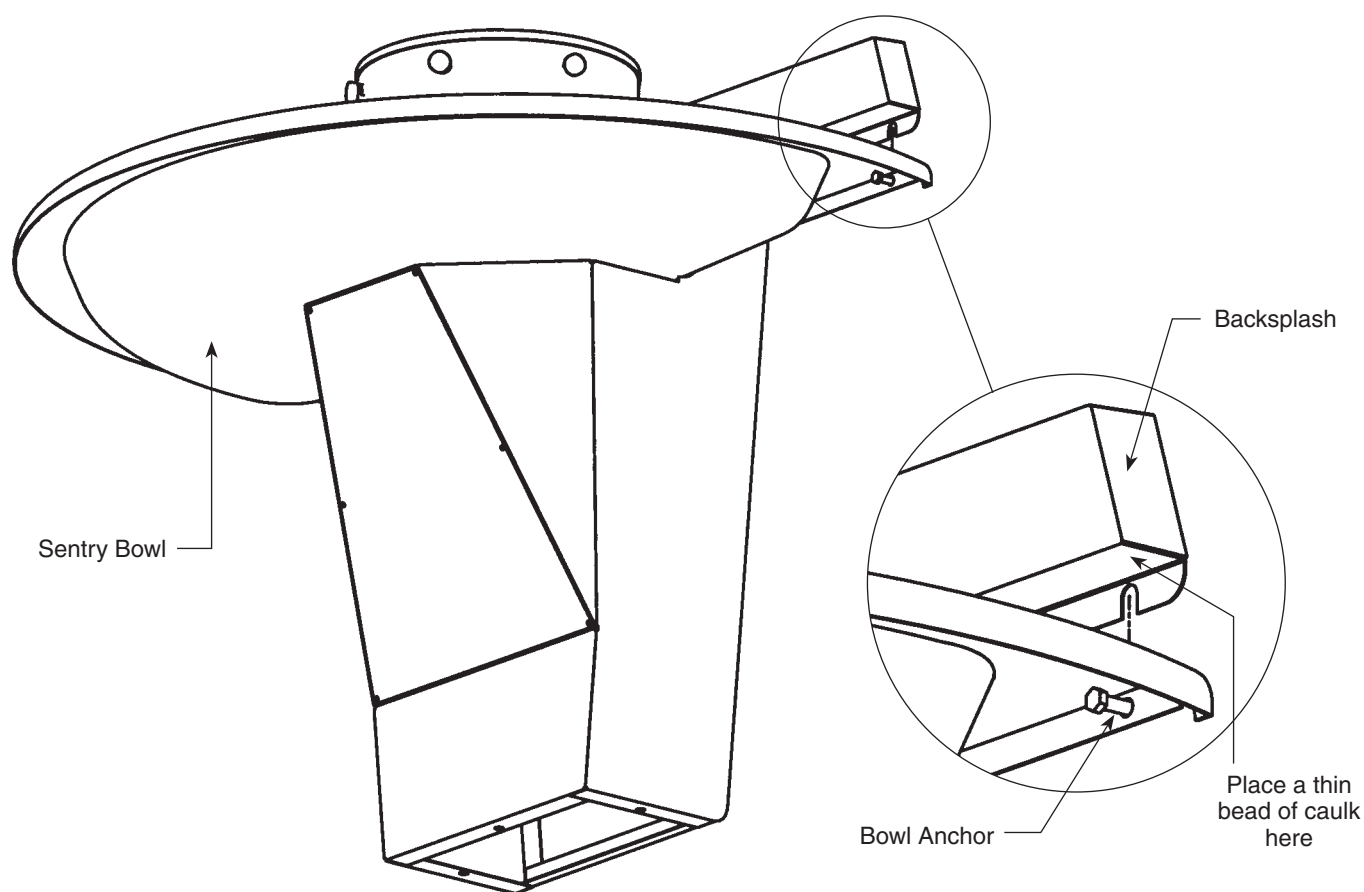
Parts List— Bowl Hardware

Item	Part No.	Description	Qty.
10	142-002AT	Flat Washer 1/4"	3 or 4
11	142-002BS	Lock Washer 1/4"	3 or 4
12	161-026	Hex Nut 1/4"-20	3 or 4

Backsplash Retrofit Kits — 36" Semi and 54" Semi

Installation

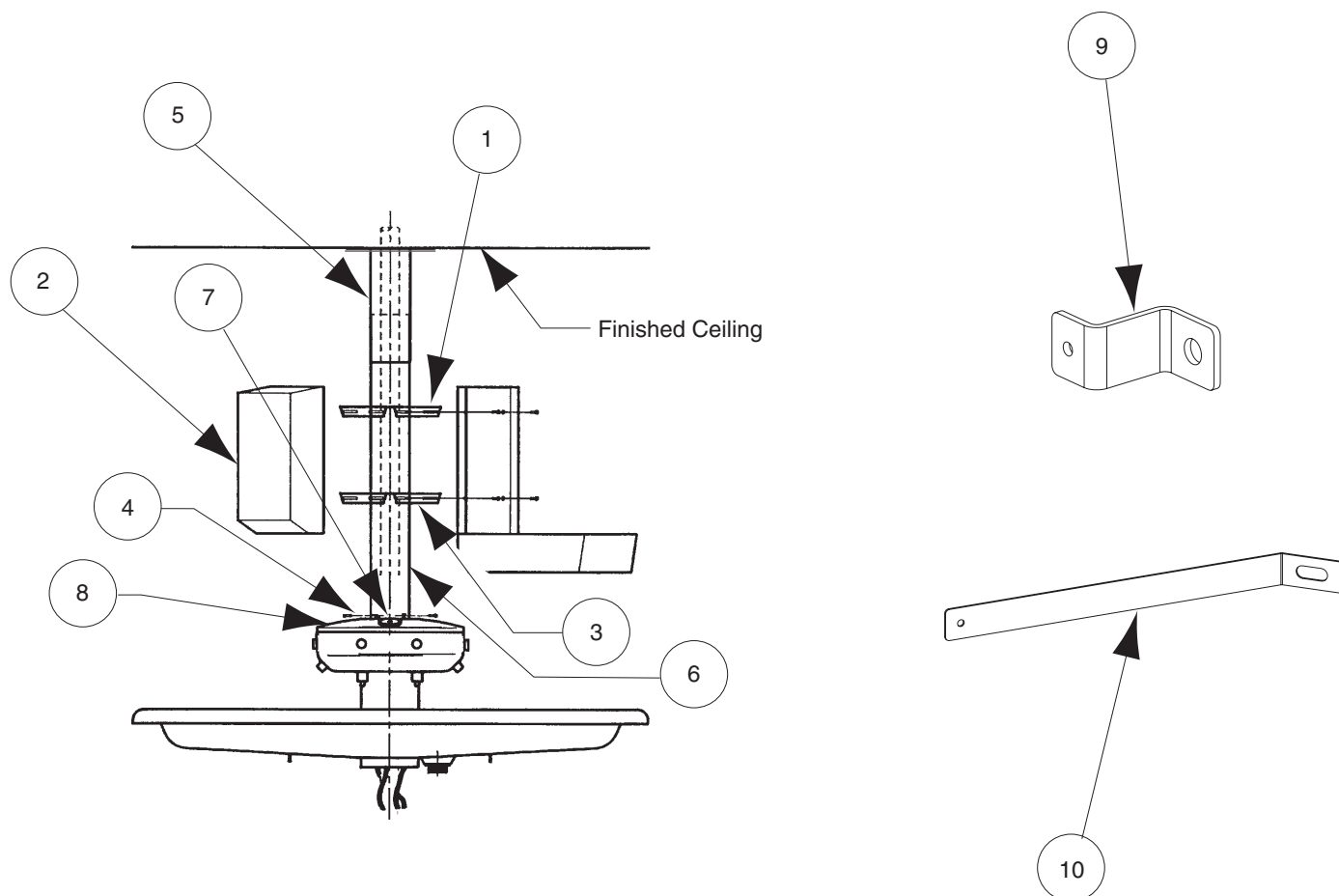
1. Loosen the bowl anchors.
2. Slide the backsplash between the wall and bowl making sure the slots on the backsplash are aligned with the bolts.
3. Caulk the lower edge of the backsplash where it meets the bowl.
4. Tighten the bowl anchors.



Parts List— Bowl Hardware

Part No.	Description	Qty.
S65-237	36" Semi-Circle	1
S65-238	54" Semi-Circle	1

Shroud/Towel Dispenser — Installed on a Shroud

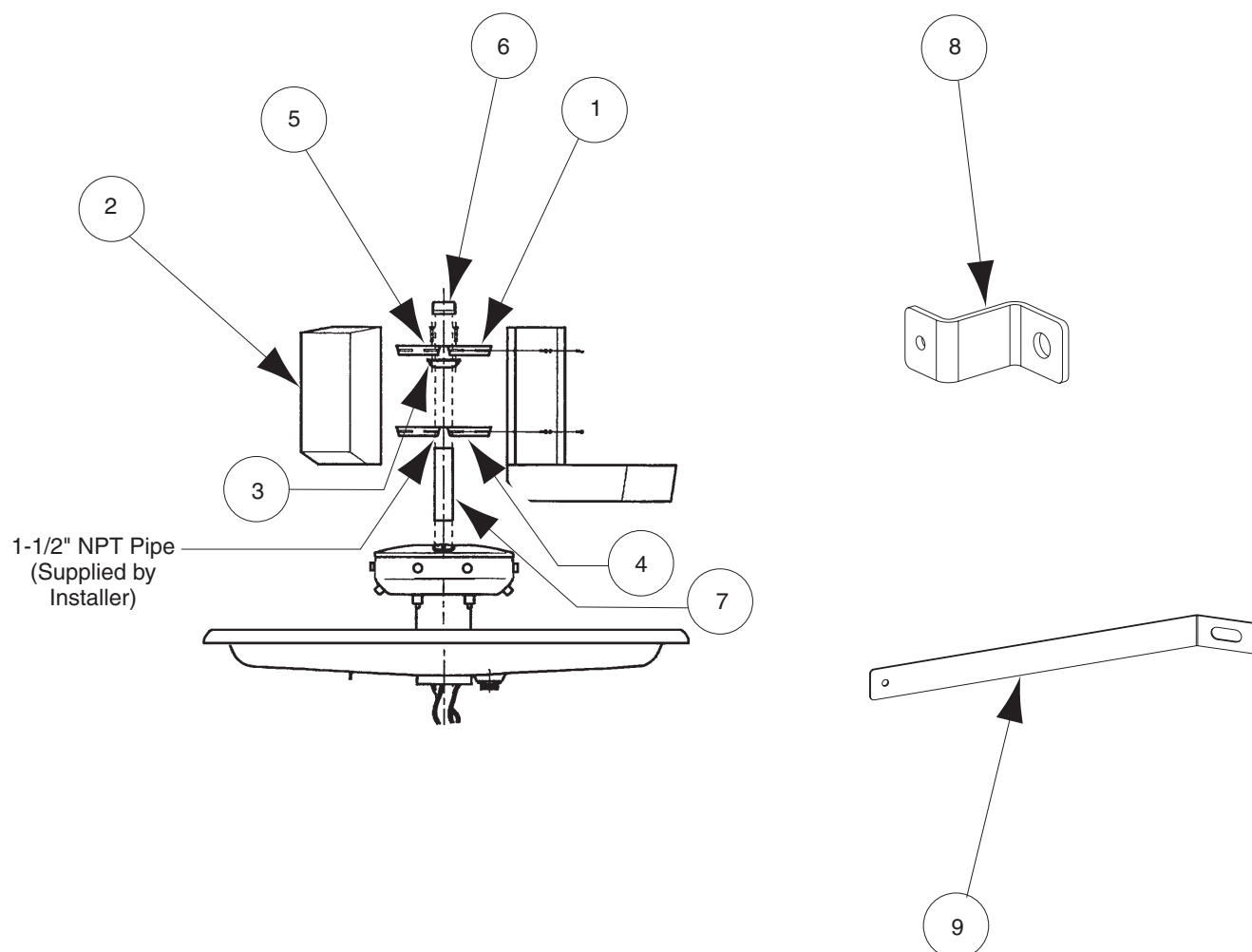


Parts List — Shroud Installations

Item	Part No.	Description	Corner & Semi Qty.	Circle Qty.
1	S70-095	Mounting Bracket - for shroud mtg.	2	2
2	S78-002	Towel Dispenser - Single fold	2	3
2	S78-001	Towel Dispenser - Multi fold	2	3
*	S45-183	Prepack - For shroud mounting	—	—
3	160-169	Screw - Bracket to shroud (included in S45-183)	6	6
4	160-138	Screw - Shroud to cover	3	3
5	S57-040	Slip Ring for shroud	1	1
6	—	Shroud - Call for part number	1	1
7	S10-009	Soap Filler Cap	2	2
8	107-445	Sprayhead Cover for Shroud	1	1
9	140-212E	Restraining Bracket for Towel Dispenser, 36"	2 Semi Only	—
9	140-212F	Restraining Bracket for Towel Dispenser, 54"	2 Semi Only	—
10	140-927	Restraining Bracket for Towel Dispenser	2 Corner Only	—

* Not illustrated.

Towel Dispenser — Installed on a Pipe



Parts List — Pipe Installations

Item	Part No.	Description	Corner & Semi Qty.	Circle Qty.
1	S70-123	Mounting Bracket - for 1-1/2" pipe mtg.	2	2
2	S78-002	Towel Dispenser - Single fold	2	3
2	S78-001	Towel Dispenser - Multi fold	2	3
*	S45-205	Prepack - For 1-1/2" pipe mounting	—	—
3	159-020	Tie Bar-Tie Pipe (included in S45-205)	2	2
4	160-208	Screw - Tie bar to pipe (included in S45-205)	6	6
5	160-111	Screw - Bracket to tie bar (included in S45-205)	4	4
6	169-986A	Pipe Cap (included in S45-205)	1	1
7	113-170	Spacer Sleeve - for 1-1/2" pipe mtg.	1	1
8	140-212E	Restraining Bracket for Towel Dispenser, 36"	2 Semi Only	—
8	140-212F	Restraining Bracket for Towel Dispenser, 54"	2 Semi Only	—
9	140-927	Restraining Bracket for Towel Dispenser	2 Corner Only	—

* Not illustrated.