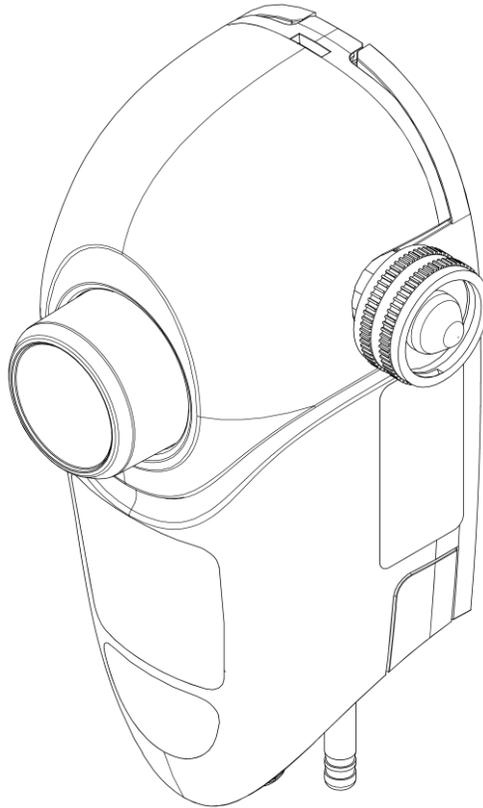


# Fusion One

## Housekeeping Chemical Dispensing System



### Installation and Setup Guide

Fusion One accurately blends proportioned chemical with water for cleaning, sanitizing or `needs. The dispensing system uses a pilot drive water valve designed for easy maintenance. Fusion One is engineered with 1055 approved back flow protect using DEMA's Air Gap or Action Gap proportioning system.

## Warnings

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All installations must conform to local plumbing codes and use approved backflow prevention devices. A pressure indicating tee is to be installed with existing faucets according to local plumbing codes in the state of Wisconsin and any other state that requires the use of a pressure indicating tee.



**ALWAYS WEAR PROTECTIVE CLOTHING AND EYEWEAR WHEN WORKING WITH CHEMICAL PRODUCTS.**

# Fusion – 644 Series – Single Dispensing System Nomenclature

644G.A1A.E0

Flow Disc	
1	No Flow Disc Installed
0	Flow Disc Installed

Foot Valve Material	
E	EPDM
V	Viton
S	Safe Link Cap (white/key 0), all other colors & keys will be customer specific models)

**Customer Specific Models**  
 Customer specials are defined per nomenclature followed by an extension that begins with "X" and 2-3 additional alpha characters. Example: 644G.1AC.E0.XATR  
 The "XATR" identifies that it is a special for a specific customer.

Proportioner (1st character is left side, 2nd character is right side)	
A	1 GPM/Bottle Fill, 1/4" Barb Chemical Pickup Fitting
B	1 GPM/Bottle Fill, 3/8" Barb Chemical Pickup Fitting
C	4 GPM/Bucket Fill, 1/4" Barb Chemical Pickup Fitting
D	4 GPM/Bucket Fill, 3/8" Barb Chemical Pickup Fitting
E	2.5 GPM, 1/4" Barb Chemical Pickup Fitting
F	2.5 GPM, 3/8" Barb Chemical Pickup Fitting

Water Inlet Connection	
1	Garden Hose - Female
2	Garden Hose - European
3	3/8" Brass Compression
4	3/8" John Guest - Push-on

Color - Push Button for Activation	
A	Black
W	White
B	Blue
R	Red
G	Green
Y	Yellow

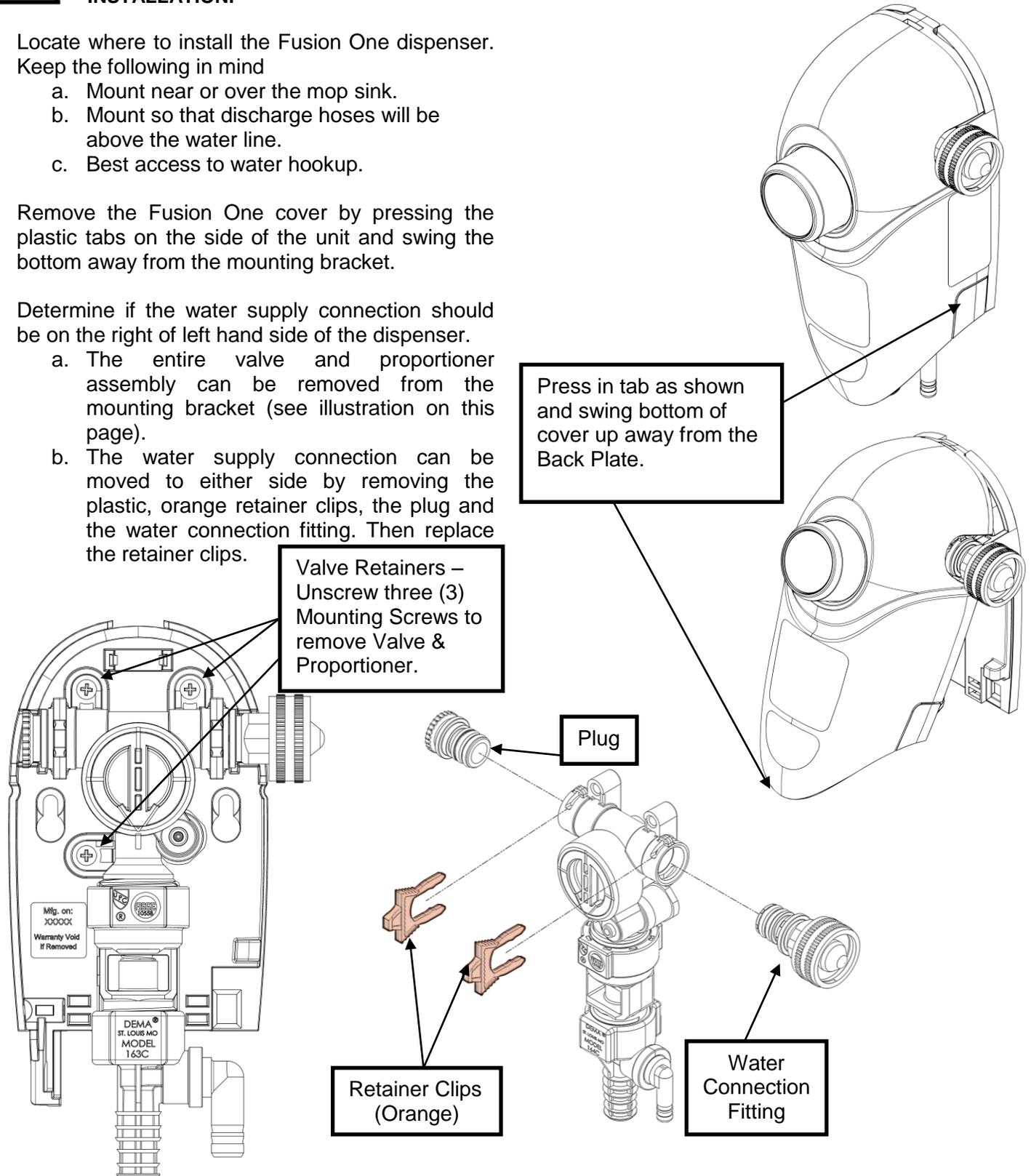
Base System	
644G	- Single Dispenser System w/Action Gap
644A	- Single Dispenser System w/Air Gap
644P	- Single Dispenser System w/P-Gap

# Installation and Servicing



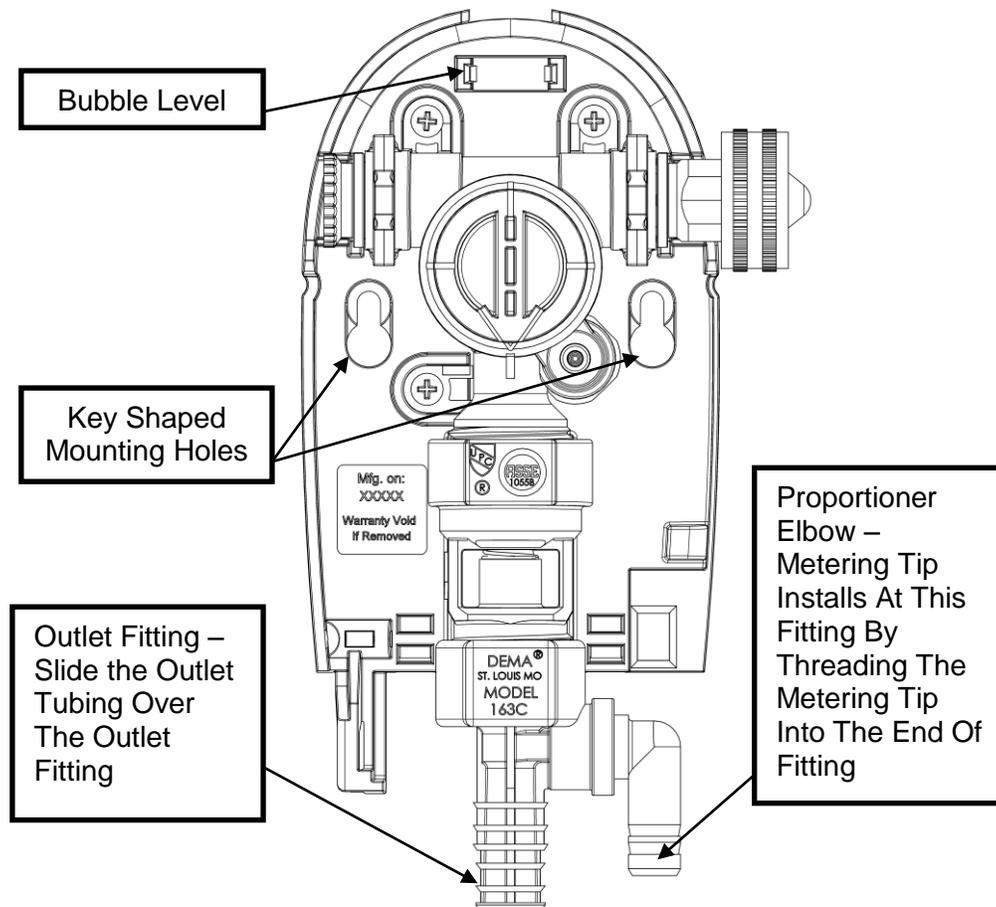
**WARNING: INSTALLATION OF DEMA PRODUCTS MUST MEET ALL APPLICABLE PLUMBING CODES AND REGULATIONS ESTABLISHED BY NATIONAL, CITY, COUNTY, PARISH, PROVINCIAL OR OTHER AGENCIES. IT IS POSSIBLE THAT PLUMBING CODES AND REGULATIONS REQUIRE THAT A CERTIFIED INSTALLATION CONTRACTOR OR ENGINEER PERFORM THE PLUMBING INSTALLATION.**

1. Locate where to install the Fusion One dispenser.  
Keep the following in mind
  - a. Mount near or over the mop sink.
  - b. Mount so that discharge hoses will be above the water line.
  - c. Best access to water hookup.
2. Remove the Fusion One cover by pressing the plastic tabs on the side of the unit and swing the bottom away from the mounting bracket.
3. Determine if the water supply connection should be on the right or left hand side of the dispenser.
  - a. The entire valve and proportioner assembly can be removed from the mounting bracket (see illustration on this page).
  - b. The water supply connection can be moved to either side by removing the plastic, orange retainer clips, the plug and the water connection fitting. Then replace the retainer clips.



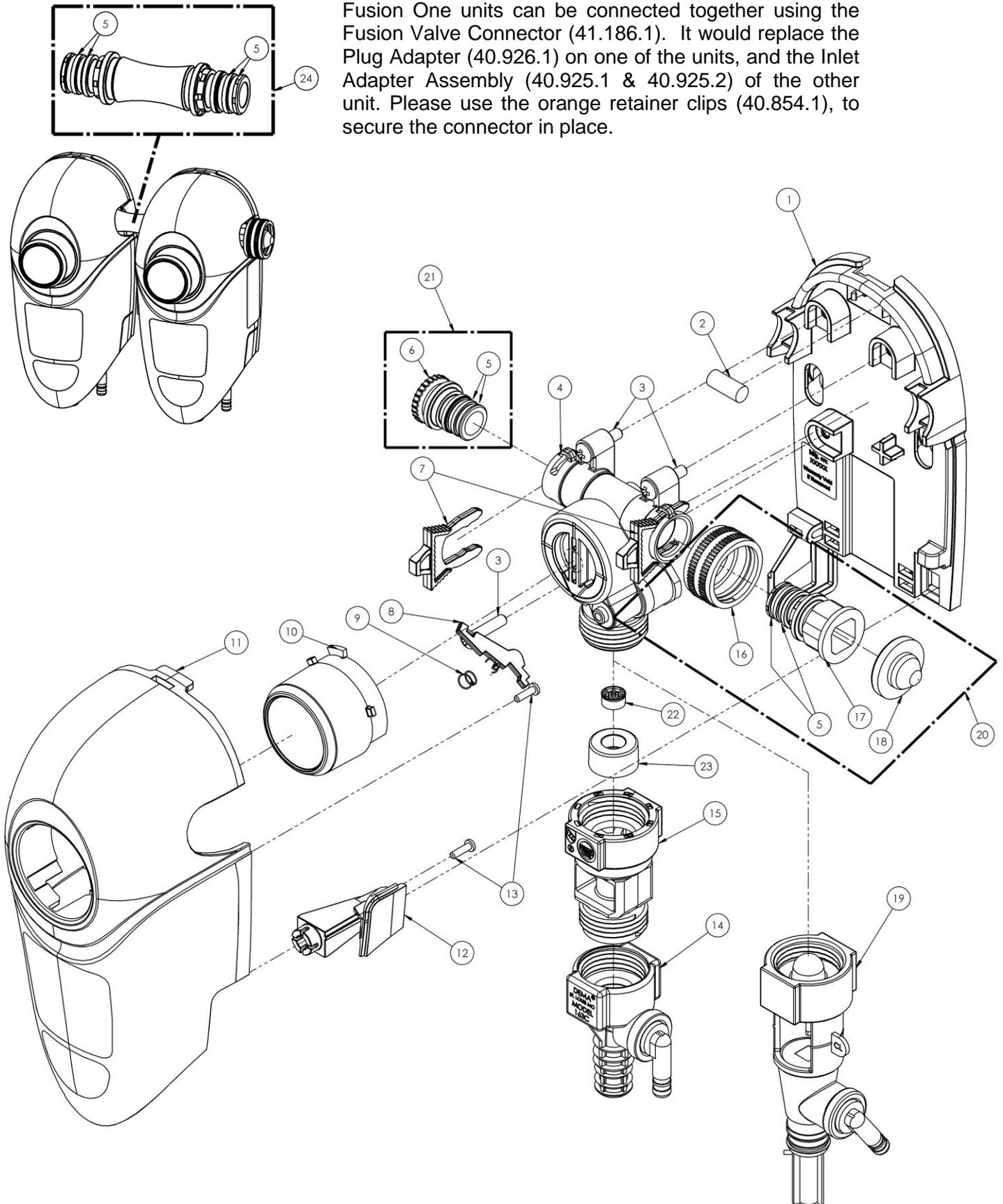
## Installation and Servicing Continued...

4. Locate the 2 key shaped mounting holes in the back plate. Mount the Fusion One using the 2 mounting screws and anchors that are included in the installation kit; with the aid of the integrated bubble level.
5. Install the desired metering tip by threading tip into the proportioner chemical pick-up elbow.
6. Cut the chemical supply tube to the length allows the foot valve to rest on the bottom of the chemical container. Slide the ceramic weight onto the chemical supply tube until it is against the foot valve. This will keep the foot valve at the bottom of the chemical container.
  - a. Note: Chemical containers cannot be greater than 6 feet (1.8M) below the Fusion One dispenser.
7. Cut the outlet tubing to the desired length. When using the system to fill mop buckets, it is recommended to cut the out let tubing so that it is above the intended fill line (water line).
8. Install the Fusion One cover by positioning the top of the cover near the top of dispenser back plate and push the cover back over the valve assembly until the tab latches on side of the unit.
9. Connect the water line to the inlet of the Fusion One.
  - a. Note: The water pressure must be between 20psi and 95psi. Optimum chemical induction occurs between 30psi – 60psi.
  - b. The water inlet options for the Fusion One are:
    - i. Garden Hose (female)
    - ii. 3/8" Brass Compression Fitting (suitable for 3/8" OD soft copper water line)
    - iii. 3/8" John Guest Push-on Water Fitting (suitable for 3/8" OD soft copper or LDPE tubing)
    - iv. 3/8" Brass Barb Water Fitting (suitable for 3/8" LDPE tubing)
  - c. The Fusion One can be used in conjunction with a pressure indicating tee, P/N 68.6.QD2.



# Replacement Parts: Fusion Unit

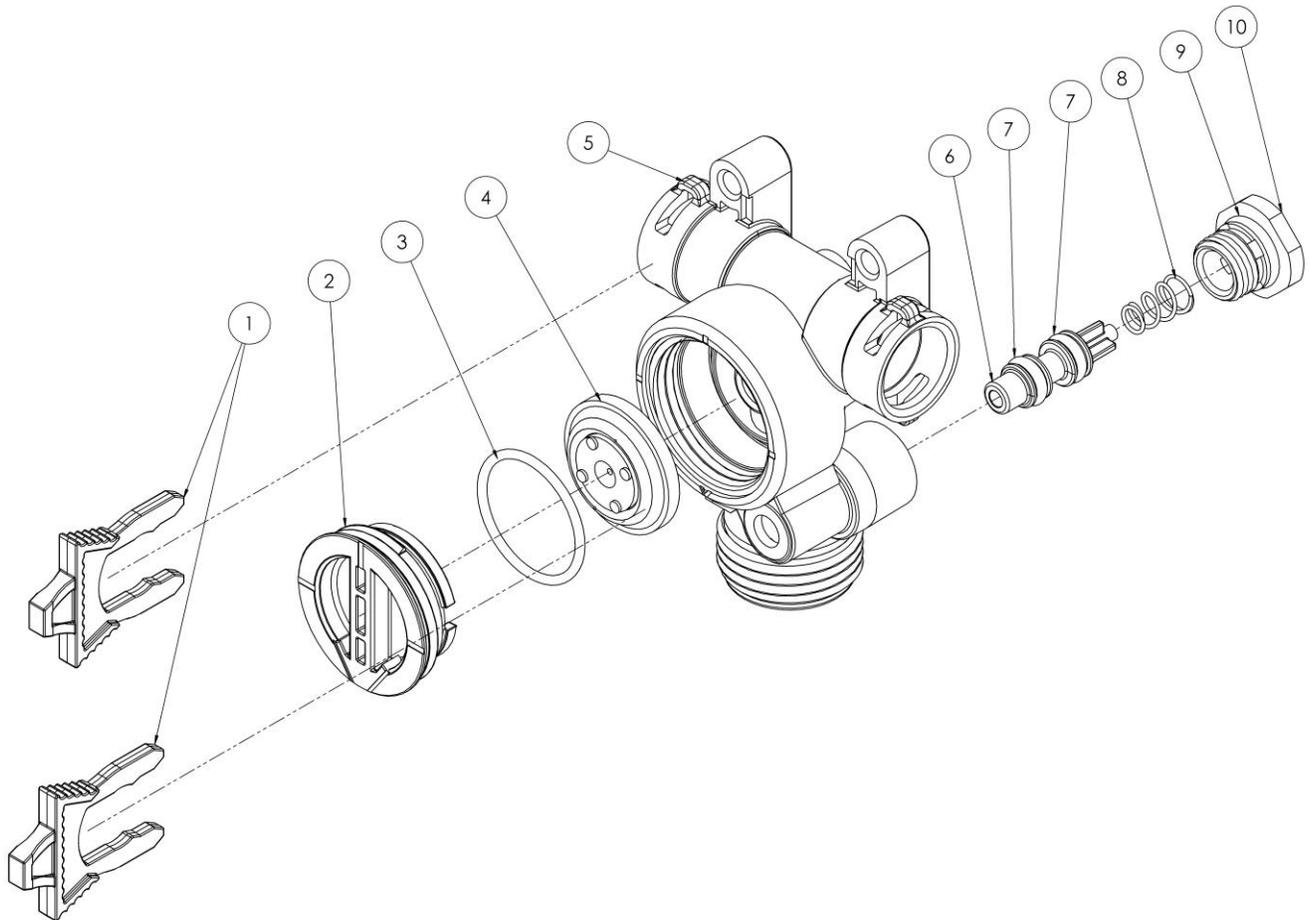
Fusion One units can be connected together using the Fusion Valve Connector (41.186.1). It would replace the Plug Adapter (40.926.1) on one of the units, and the Inlet Adapter Assembly (40.925.1 & 40.925.2) of the other unit. Please use the orange retainer clips (40.854.1), to secure the connector in place.



## Replacement Part: Fusion Unit Continued...

FUSION REPLACEMENT PARTS			
Item No.	DEMA Part No.	QTY	DESCRIPTION
1	40.826.1	1	BASE, FUSION HK
2	40.970.1	1	FUSION BUBBLE LEVEL
3	44.116.3	3	#8 HI-LO SCREW X 1" LONG
4	40.847.2	1	FUSION VALVE ASSEMBLY (SEE PG. #7 FOR PARTS)
5	63.78	4	O-RING-SEAL EPT (7/16" I.D. X 3/8" O.D. X 1/16" NOM.)
6	40.853.1	1	END PLUG PILOT ACTIVATED VALVE
7	40.854.1	2	RETAINING CLIP PILOT ACTIVATED VALVE
8	40.931.1	1	BOTTOM LEVER, FUSION HK
9	40292.1	1	EXTENSION SPRING
10	40.929.1	1	BUTTON, FUSION HK
11	41.185.1	1	FRONT COVER, FUSION, W/LABELS
12	40.930.1	1	RETENTION LATCH
13	81.20.2	2	#4 X 3/8" HI LO SCREW
14	61.22.3	1	ACTION GAP PROPORTIONER ASSEMBLY (4GPM)
15	16.30	1	ACTION GAP
16	65.10.2	1	STANDARD COUPLING, GARDEN HOSE THREAD
16	98.55.1	1	EURO COUPLING, BRITISH HOSE THREAD
17	40.852.1	1	WATER INLET FITTING, PILOT ACTIVATED VALVE
18	100.38	1	STRAINER WASHER
19	61.22.3BAG	1	AIR GAP PROPORTIONER ASSEMBLY (4GPM)
20	40.925.1	1	FUSION VALVE INLET ADAPTER W/GHT, ASSEMBLY
20	40.925.2	1	FUSION VALVE INLET ADAPTER W/BRITISH HOSE THREAD, ASSEMBLY
21	40.926.1	1	FUSION VALVE PLUG ADAPTER, ASSEMBLY
22	77.2.1.06	1	FLOW DISC, PINK, [1.06(GPM) / 4(L/MIN)]
22	77.6.2.64	1	FLOW DISC, YELLOW, [2.64(GPM) / 10(L/MIN)]
22	40.570.1	1	FLOW DISC, NATURAL, [4.45(GPM) / 16.85(L/MIN)]
23	89.18.1	1	RETAINER, FLOW DISC
24	41.186.1	-	FUSION VALVE CONNECTOR

# Replacement Parts Valve Body



VALVE REPLACEMENT PARTS			
Item No.	DEMA Part No.	QTY	DESCRIPTION
1	40.854.1	2	RETAINING CLIP PILOT ACTIVATED VALVE
2	41.058.1	1	DIAPHRAGM CAP
3	619.21	1	O-RING SEAL EPDM (15/16" X 1/16")
4	98.26.1	1	1-1/16" DIAPHRAGM
5	40.824.1	1	VALVE BODY
6	40.849.1	1	BUTTON, PILOT ACTIVATED VALVE
7	640.106	2	O-RING SEAL (3/16"ID X 3/8"OD X 3/32"NOM.)
8	98.39.2	1	RETURN SPRING
9	63.78	1	O-RING-SEAL EPT (7/16" I.D. X 9/16" O.D. X 1/16 NOM.)
10	40.851.1	1	BOTTOM CAP

# Specifications

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- Operation Pressure Rating: 20psi – 95psi
- Safety Pressure Rating: 125psi
- Water Temperature Rating: 45°F (7°C) – 125°F (50°C) Max
- Back Flow Protection – ASSE 1055 (Action Gap & Air Gap)

# Warranty

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## Merchandise Returns

***No Merchandise Will Be Returned For Credit Without DEMA'S Written Permission. Returned Merchandise Authorization Number Is Required In Advance Of Return.***

## Product Warranty

DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products that have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, physical abuse, or misapplication. Rubber and synthetic rubber parts such as “o”-rings, diaphragms, PVC tubing, and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of DEMA products. If products are altered or repaired without prior approval DEMA, this warranty is void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA assumes no liability for damages. Return merchandise authorization number must be granted in advance of return units for repair or replacement (See “Merchandise Returns” above).