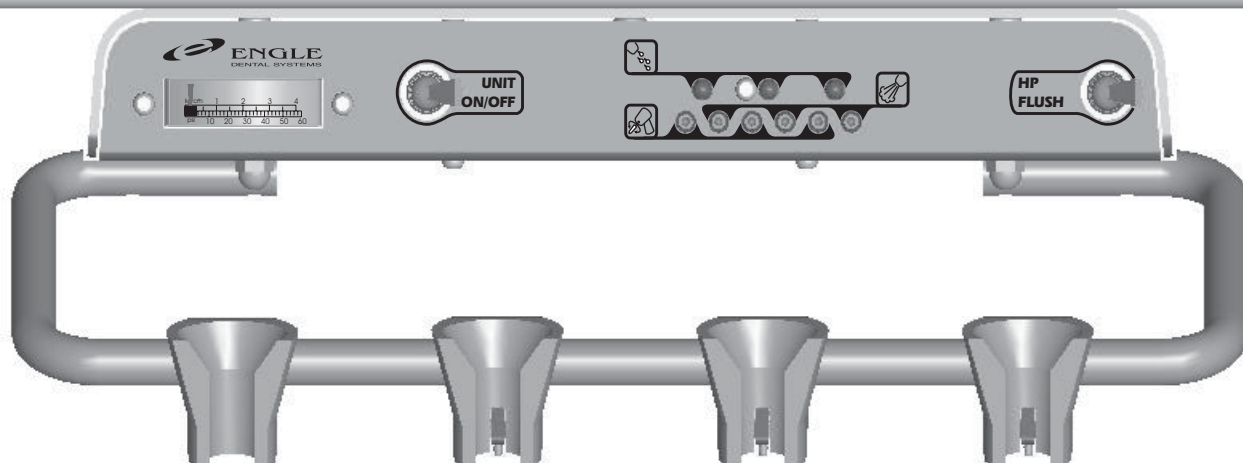


# Installation and Operations Manual

for the

AS-1 Automatic Control  
Under Cabinet Assembly  
P/N 71-945-02

(229-193)







P.O. Box 725 · 4115 24th Avenue Suite A · Forest Grove, Oregon 97116, USA  
www.engledental.com

## INSTALLATION AND OPERATION MANUAL

### **Customer Service:**

7:00 A.M. to 4:30 P.M. (Pacific Time)

Phone: 800-547-1906

Fax: 503-357-7286

E-mail: [info@engledental.com](mailto:info@engledental.com)

### **Technical Support:**

7:00 A.M. to 4:00 P.M. (Pacific Time)

Phone: 800-547-1906

Fax: 503-357-7286

E-mail: [support@engledental.com](mailto:support@engledental.com)

## Warranty

Products sold to and installed by authorized Engle Dental Systems dealers are guaranteed against defects in materials and workmanship for a period of five (5) years after date of purchase. Engle 300 dental chair Electronic Positioning Components have a Limited Warranty of ten (10) years after date of purchase. Upholstery is guaranteed for one (1) year after date of purchase. All hand-piece illumination systems are guaranteed for six (6) months after date of purchase. This warranty does not cover light bulbs of any kind.

Faulty parts as determined by dealer service representative, will be repaired or replaced; no claim for labor or consequential damages will be allowed. Invoices for replacement parts may be subject to adjustment after the manufacturer has inspected the alleged defective parts.

The warranty does not cover normal wear, stains, cuts, or scratches of upholstery surface finishes, or parts sold to O.E.M. customers.

This warranty does not cover damage resulting from the use of cleaning, disinfecting, or sterilization chemicals and processes.

The warranty does not cover damage from improper installation or maintenance, accident, misuse, or accidents incurred in shipping and handling.

In the event of shipping damage, the purchaser must initiate all claims against the freight carrier in writing within twenty-four (24) hours after the damaged items are received. The claim is the responsibility of the customer.

### PRODUCT MODIFICATIONS

Engle Dental Systems continually works to better our products. We reserve the right to make modifications without notice or obligation to modify previously manufactured products.

# CLEANING AND DISINFECTING ENGLE EQUIPMENT

Infection control in the dental office continues to be a high priority for our customers and end users. O.S.H.A., the A.D.A., and the C.D.C. are also involved in this complex issue.

We will not attempt to specify the required intervals for disinfection nor can we state what is the overall best surface disinfectant. Please refer to the Infection Control Recommendations published by the American Dental Association for further reference.

## Barrier Technique

ENGLE strongly advocates the barrier technique be used whenever possible to preserve the finish and appearance of the equipment. Wherever possible disposable barriers should be used and changed between patients. The barrier technique will ensure maximum long term durability of the surfaces and finishes of equipment.

## Chemical Disinfection

Regardless of the chemical disinfectant used it is imperative that the equipment be thoroughly washed with mild soap and warm water at least once per day. This wash down will minimize the harmful effects of chemical disinfectant residues being allowed to accumulate on the equipment.

When using a chemical disinfectant, always pay strict attention to the manufacturer's application directions of the disinfectant. When using a concentrated disinfectant, always pay strict attention to the manufacturer's diluting directions of the disinfectant. *"Disinfectant solutions that are relatively harmless to surfaces at their recommended strengths can be corrosive at a higher/purer concentrate."*

## Unacceptable Disinfectants

These disinfectants **WILL HARM** the surface finishes of ENGLE equipment and are **NOT RECOMMENDED**.  
USE OF THESE PRODUCTS WILL VOID YOUR WARRANTY.

CHEMICAL COMPOSITION	TRADE NAMES
Strong Phenols/Phenol-Alcohol Combinations	Lysol, Lysol 2, Lysol Professional Coe Foam, Coe Spray Pump, Vitaphone, Omni II
Sodium Hypochlorite/Household Bleach	Clorox, Ajax, Purex
Alcohol	
Household Cleaners	

## Conditionally Acceptable Disinfectants\*

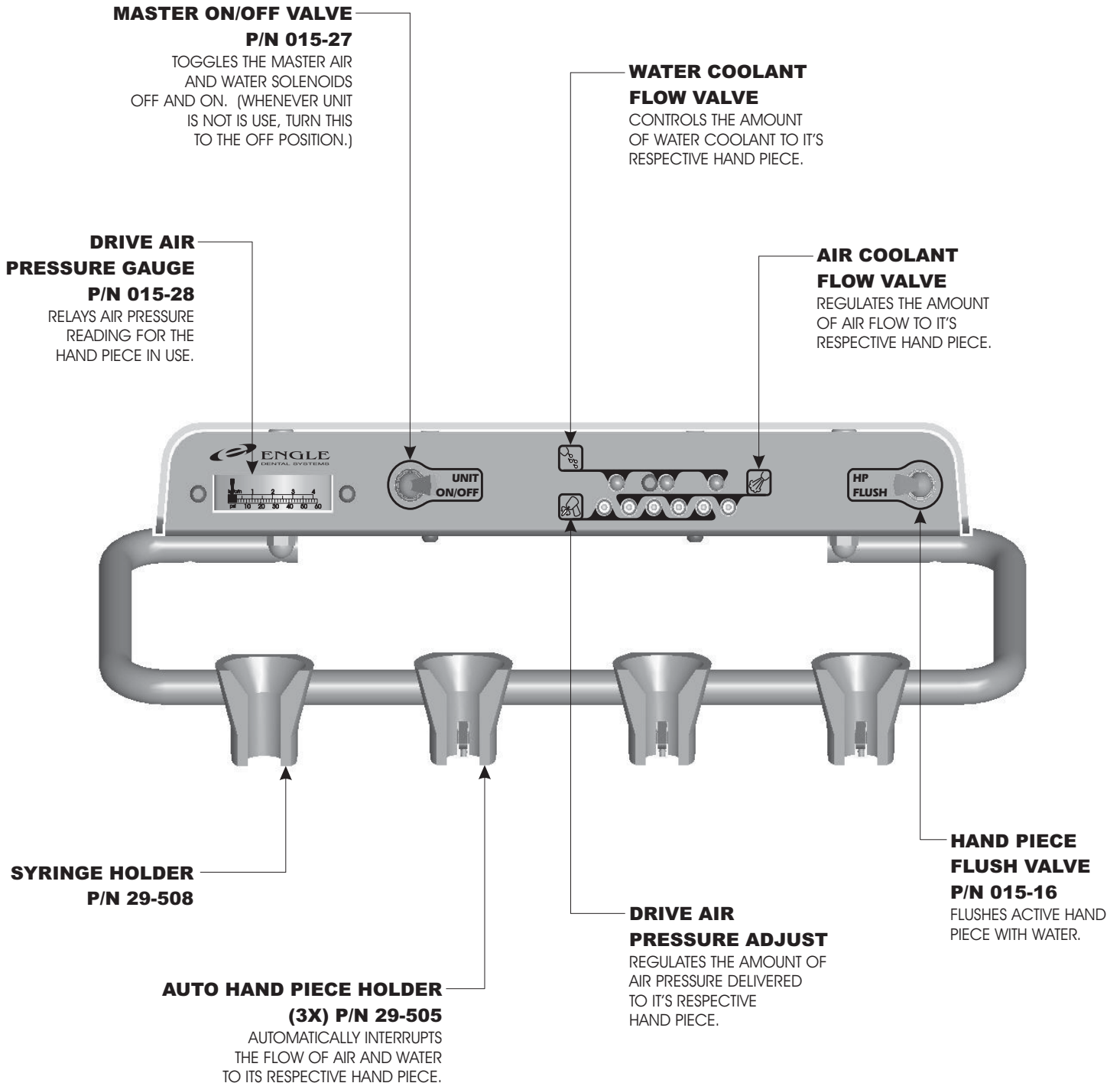
These disinfectants have been found to be the LEAST HARMFUL to the equipment surfaces.  
**None of these products are recommended for chair upholstery. Use the barrier technique.**

CHEMICAL COMPOSITION	TRADE NAMES
Iodophors**	Biocide, Aseptic-IDC Wescodyne, SD5, Promedyne, Ido-Five
Mild Phenols	Procide ES, Asepti-Steryl Aerosol
Glutaraldehyde/Phenol sprays	Sterall Spray, Coldspor
Synergized Super Quat	Dis-cide, Cavicide, Kleenaseptic
Phenol/Water Sprays	Top-Cide, Sporicidin Pump Spray, Birex se

\* ENGLE DENTAL SYSTEMS makes no representation as to the disinfectant efficacy of these products. We make no warranty, expressed or implied, that these disinfectants will not damage the surface finishes. Damage and discoloration of the surface finishes is not covered under the warranty.

\*\* Iodophor based disinfectants will cause yellow staining on many surfaces. Regular washing with soap and water will minimize this staining. Iodophor neutralizers such as Promedyne are also available.

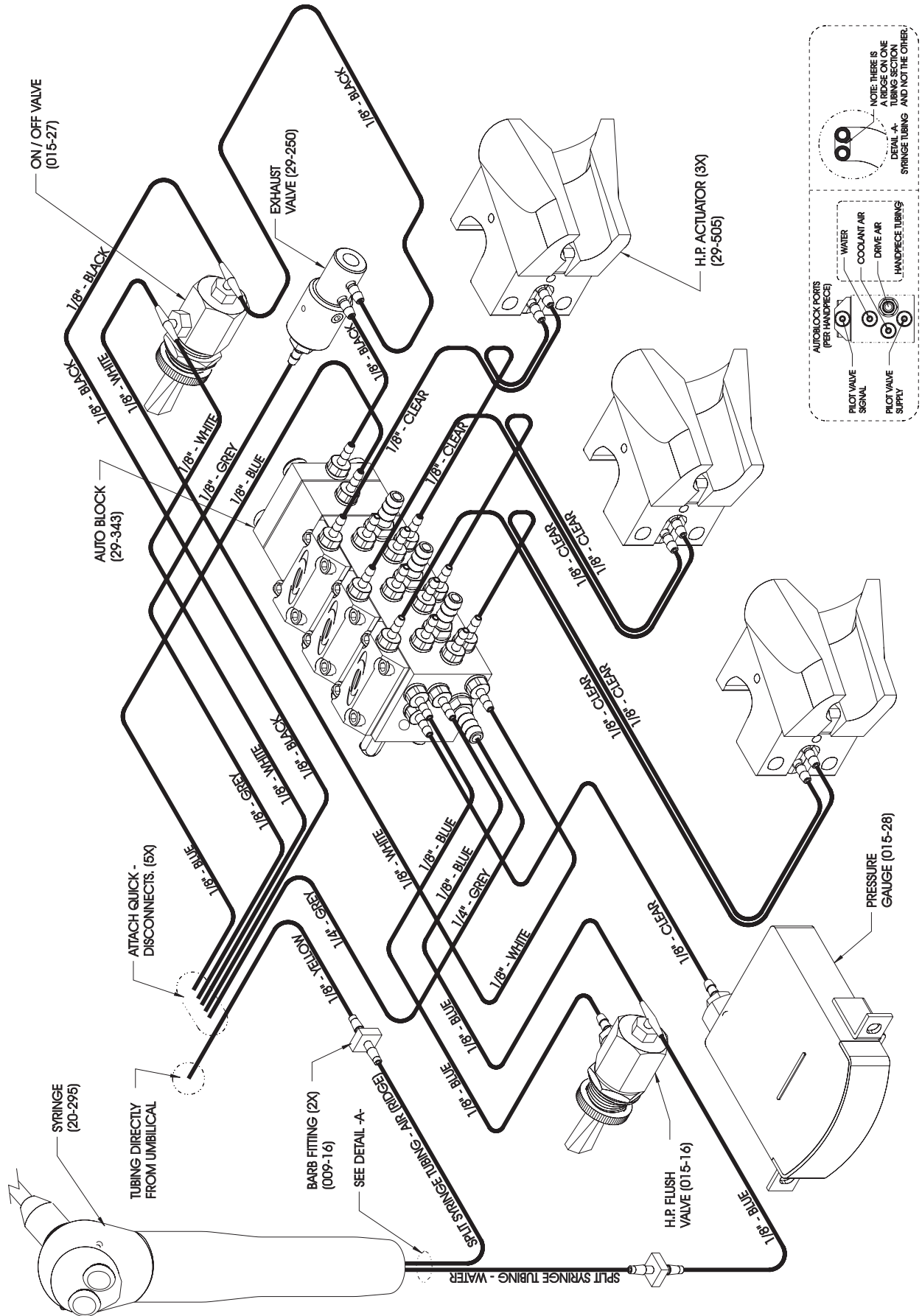




AS-1 Auto Control - Tubing Diagram

IL 132

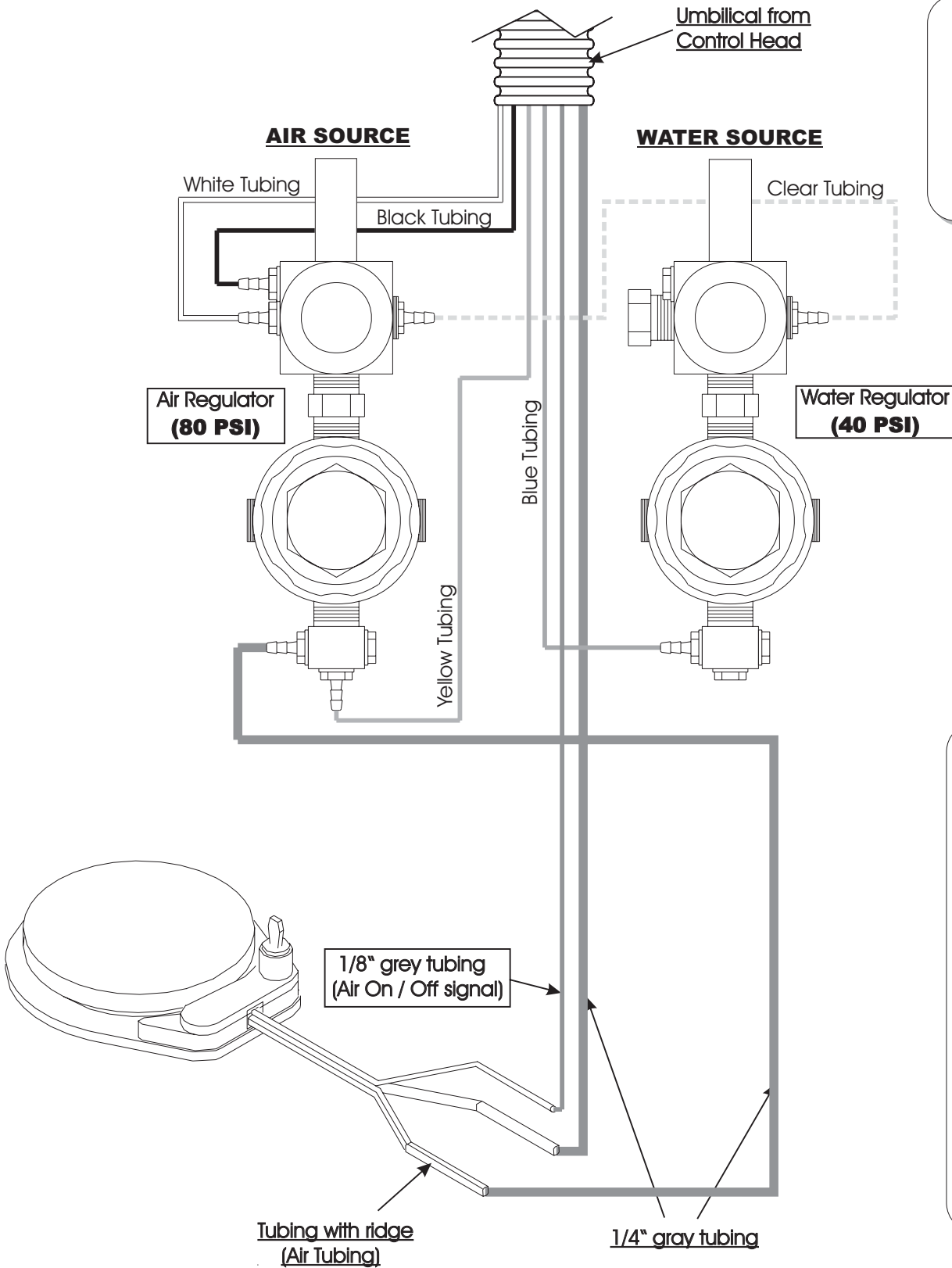
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**NOTE: THERE IS AIR IN EVERY TUBING SECTION. DETAIL -A- SPRINGE TUBING AND NOT THE OTHER.**


**AUTOBLOCK PORTS (PER HANDPIECE)**

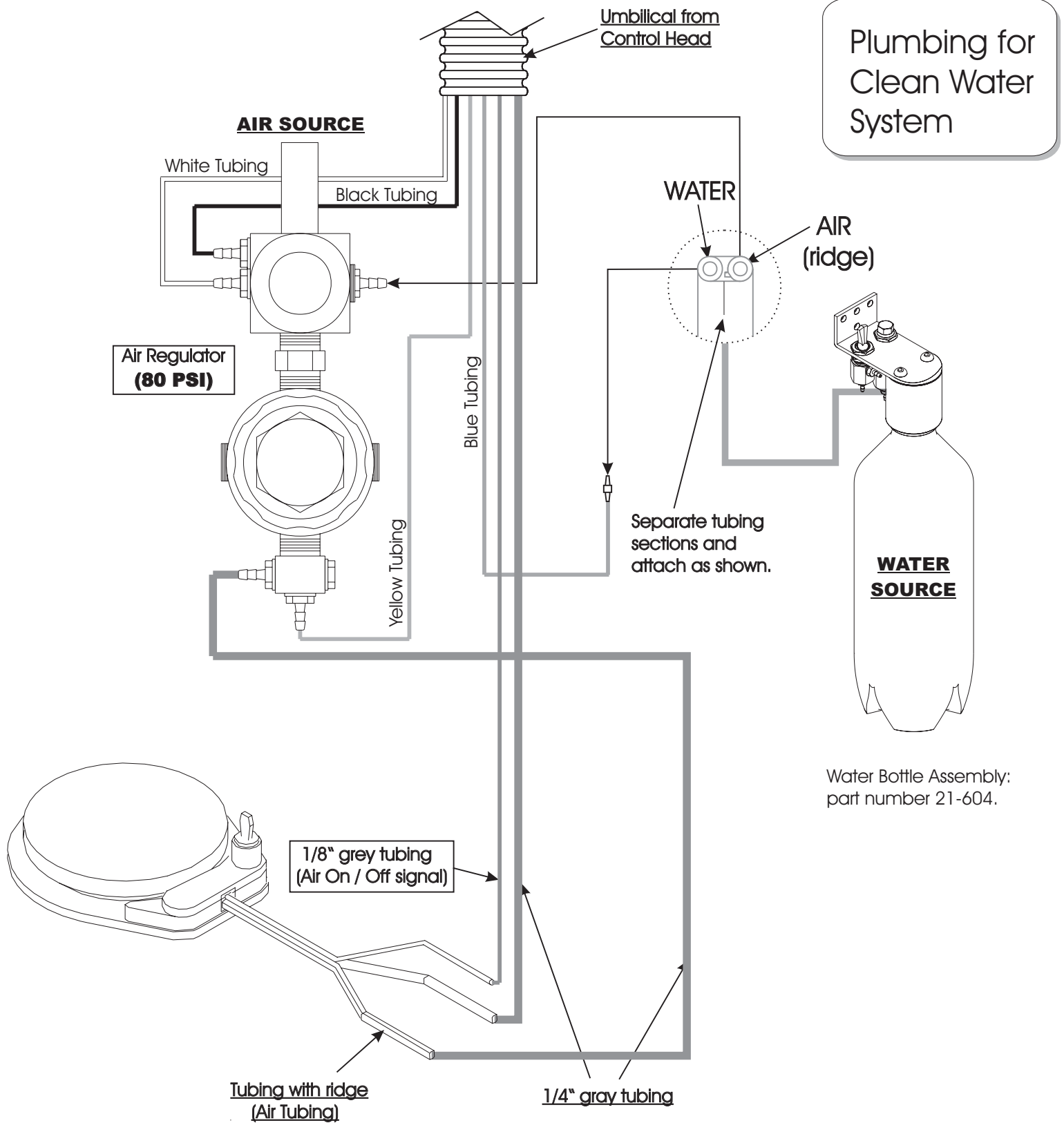
- PILOT VALVE SIGNAL
- PILOT VALVE SUPPLY
- WATER
- COOLANT AIR
- DRIVE AIR
- HANDPIECE TUBING

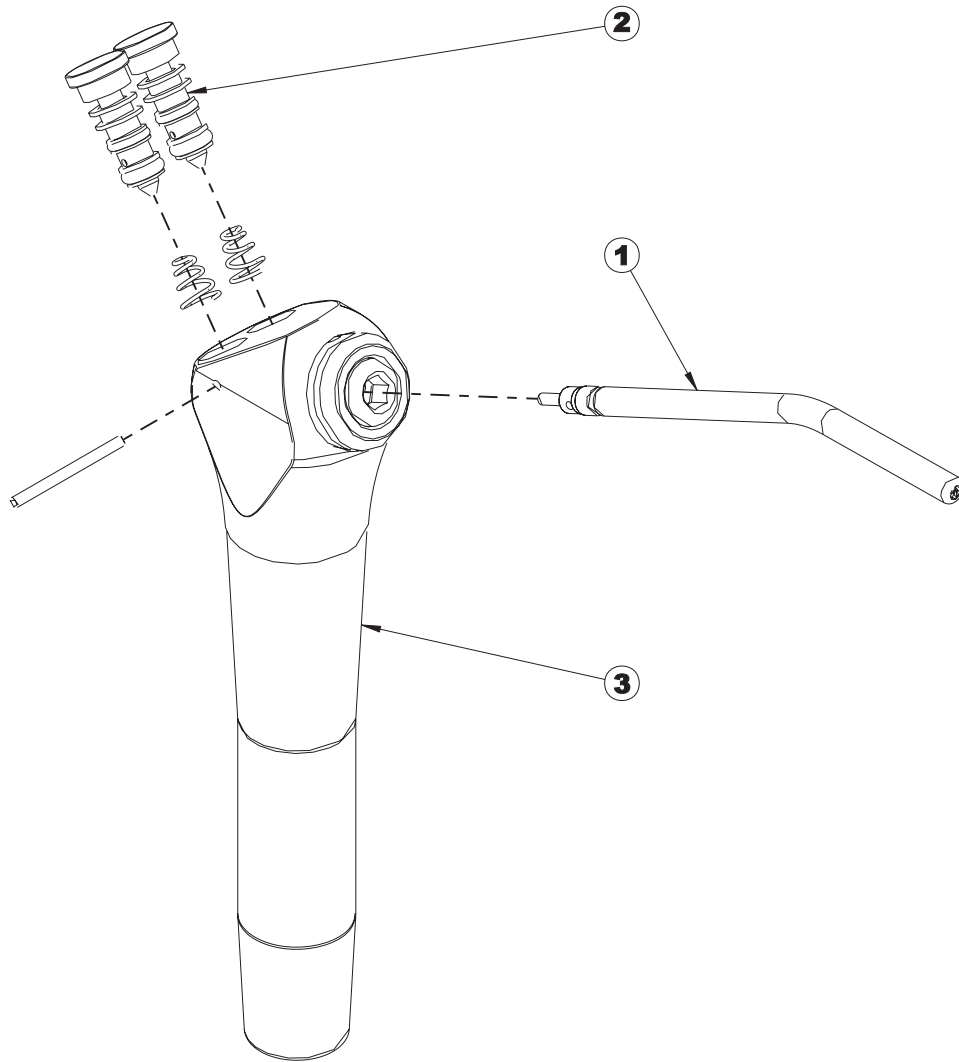


**Plumbing for City Water**  
(See next page for optional Clean Water System plumbing.)

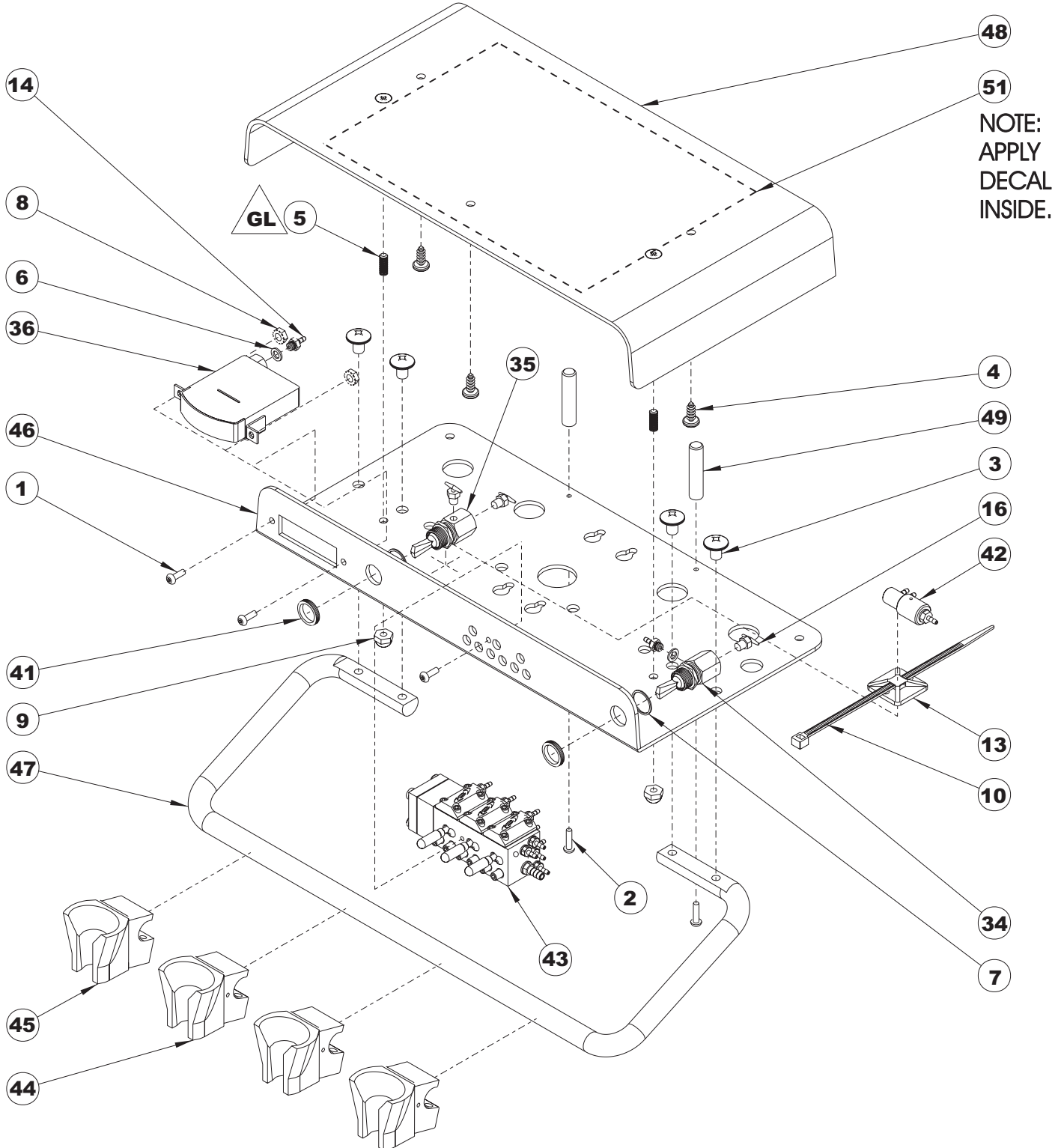
Use quick disconnects to attach like-colored tubings from the regulator and foot control to the umbilical from the panel mount control.







NO.	PART NO.	DESCRIPTION	QTY.
1	20-390	TIP	1
2	20-393	CARTRIDGE ASSEMBLY	2
3	20-395	SYRINGE	1



**GL** NEATLY APPLY GREEN LOCTITE TO ONLY THE THREADS THAT SCREW INTO THE AS-1 SHROUD - CABINET (P/N 71-970) ASSEMBLY.

\* INDICATES PART NOT SHOWN.

NO.	PART NO.	DESCRIPTION	QTY.
1	001-23	#6-32 X 3/8 BTN HD SOC SCREW	3
2	001-61	#6-32 X .500 BTN HD SOC SCREW	2
3	001-185	#1/4-20 X 3/8 TRSS HD PHLPS SCREW	4
4	002-38	#10-32 X 1/2 PAN HD SLF TAP SCREW	3
5	003-27	#10-32 X 1/2 SET SCREW	2
6	004-04	3/16 ID X 5/16 OD X 1/32TK NYLN WASHER	2
7	004-62	15/32 INTERNAL LOCK WASHER	2
8	005-12	#6-32 X 5/16 HEX NUT	2
9	005-52	#10-32 A-CORN NUT	2
10	007-01	5-1/2" ZIP TIE *	4
11	007-02	.142 I.D. DELRIN FERRULE *	9
12	007-05	.253 I.D. DELRIN FERRULE *	2
13	007-07	3/8" CABLE CLAMP - (TIE MOUNT)	2
14	009-06	1/16" O.D. BARB X #10-32	2
15	009-16	1/16" BARB CONNECTOR *	2
16	009-41	T - FITTING PLASTIC	3
17	012-03	1/8" CLEAR TUBING *	17"
18	012-03	1/8" CLEAR TUBING *	7"
19	012-31	2 - HOLE GREY TUBING *	3'
20	012-43	1-7/8" OD X 5/8" ID RIBBED TUBING *	6'
21	012-65	1/4" GREY TUBING *	8'
22	012-101	1/8" BLACK TUBING *	8'
23	012-101	1/8" BLACK TUBING *	13"
24	012-101	1/8" BLACK TUBING *	5"
25	012-102	1/8" WHITE TUBING *	8'
26	012-102	1/8" WHITE TUBING *	20"

NO.	PART NO.	DESCRIPTION	QTY.
27	012-103	1/8" BLUE TUBING *	8'
28	012-103	1/8" BLUE TUBING *	11"
29	012-103	1/8" BLUE TUBING *	4"
30	012-103	1/8" BLUE TUBING *	2.25"
31	012-105	1/8" GREY TUBING *	8'
32	012-106	1/8" YELLOW TUBING *	8'
33	014-474	22-6 CABLE WIRE *	8'
34	015-16	TOGGLE VALVE - MOMENTARY	1
35	015-27	TOGGLE VALVE - ON/OFF	1
36	015-28	AIR PREASURE GUAGE	1
37	015-54	1/16" F.Q.D. *	4
38	015-56	1/8" F.Q.D. *	1
39	20-336	SYRINGE - 5' *	1
40	29-165	WET / DRY FOOT CONTROL ASSEMBLY *	1
41	29-240	#15-32 X 9/16 KNURLED NUT	2
42	29-250	EXHAUST VALVE	1
43	29-343	AUTOBLOCK - 3 POSITION	1
44	29-505	H.P. ACTUATOR	3
45	29-508	SYRINGE HOLDER	1
46	71-936	AS-1 FACE PLATE	1
47	71-943	HANGER BAR	1
48	71-970	AS-1 SHROUD - CABINET	1
49	71-971	AS-1 SHROUD SUPPORT	2
50	219-121	FLOOR VALVES KIT *	1
51	229-208	AS-1 AUTO CONTROL DECAL	1
52		H.P. TUBINGS *	3

