



*Thank You for Purchasing the NuBlend Tempo –  
The Ultimate Superconcentrate Cleaning System*

## Tempo Single-Feed Installation Instructions

The Tempo dispenser is designed to dispense one product into a bucket or autoscrubber with the turn of a ball valve.

### I. **PARTS:**

ITEM	DESCRIPTION	QTY.
A	Dispenser Assembly	1
B	½" ID X 6' Long Vinyl Outlet Tubing (For 4 GPM Station Only)	1
C	¼" ID X 8' Long Vinyl Supply Tubing	1
F	#10 Screws & Anchor Kit	1
G	Universal Metering Tip Kit	1

### II. **INSTALLATION:**

#### A. **Mounting and Water Supply:**

Locate mounting holes on a permanent surface. The unit needs to be mounted high enough to be convenient for the operator. Drill all holes into the wall using a ¼" diameter bit for use with the included #10 screw & anchor set. (If mounting dispenser to wood and you do not plan to use the anchors, drill 1/8" diameter holes 1" deep.) Insert the anchors into drilled holes and hammer them into the wall until they are flush with face of wall. Assemble all of the #10 screws with a phillips screwdriver into the anchors so the screw heads are sticking out of the wall approximately 1/8". Mount the unit by inserting the screw heads through the keyhole slots and tighten the screws. Secure unit by inserting screws into the lower 2 holes.

The water inlet is equipped with a female garden hose fitting (with strainer washer) for attaching a water supply hose. The water inlet may be removed to permit direct connection to a 1/4" NPT pipe. The unit is designed so water can be supplied to either side by interchanging the pipe plug with the water inlet assembly.

**NOTE: Apply pipe dope, hand tighten, then turn 1-½ times with a**

wrench. Do not over tighten.

**B. Chemical Supply:**

Place the chemical container in a convenient location not more than 6 ft. below the dispensing unit. **Note: greater lifts will reduce injection capacities.** Slide the suction hose over the barb on the cap adaptor securely. Cut the vinyl tube to any convenient length that will allow the tube to extend from the bottom of the chemical container to the proportioner inlet barb. Install the other end of the tubing by pushing tubing over proportioner inlet barb.

**C. Outlet Tubing:**

For the 4 GPM proportioner outlet: Cut a piece of the ½” I.D. outlet tubing to the desired length and attach to the proportioner outlet barb. **Do not force tubing onto the larger barbs on the proportioner. Note: Outlet tube may be anchored to the wall to prevent damage to the proportioner.**

**CAUTION:** To prevent continuous siphoning, the outlet of the discharge tubing should not be below the level of chemical in the container.

**D. Injection Adjustment:**

**WARNING: USE CARE WHEN HANDLING HAZARDOUS CHEMICALS.**

Chemical feed rates are controlled by metering tips screwed into the proportioner barb. Use Table 1, TEMPO for 4 GPM proportioner as a guide for tip selection.

NUANCE SOLUTIONS UNIVERSAL TIP KIT							
Dispenser	CALIBER		TEMPO	Dispenser	ECLIPSE		EXPRESS
Flow (minimum inlet)	0.75 GPM		0.75 GPM	Flow (minimum inlet)	7 GPM		7 GPM
Flow (Blended output)	1 and 4 GPM		4 GPM	Flow (Blended output)	1 and 10 GPM		10 GPM
Pressure (PSI)	20 - 125		20-125	Pressure (PSI)	20 - 90		20-125
Tip Color	Mix Ratio		Mix Ratio 4 GPM	Tip Color	Mix Ratio		Mix Ratio 10 GPM
	1 GPM	4 GPM			1 GPM	10 GPM	
Tan	102:1	427:1	427:1	Tan	102:1	1257:1	1257:1
Orange	75:1	320:1	320:1	Turquoise	60:1	750:1	750:1
Turquoise	60:1	256:1	256:1	Pink	43:1	416:1	416:1
Pink	43:1	170:1	170:1	Light Blue	52:1	341:1	341:1
Light Blue	33:1	128:1	128:1	Brown	42:1	278:1	278:1
Brown	28:1	114:1	114:1	Red	32:1	240:1	240:1
Red	22:1	85:1	85:1	White	27:1	200:1	200:1
White	18:1	73:1	73:1	Green	24:1	192:1	192:1
Green	16:1	64:1	64:1	Blue	15:1	128:1	128:1
Blue	13:1	51:1	51:1	Yellow	10:1	89:1	89:1
Yellow	9:1	34:1	34:1	Black	8:1	64:1	64:1
Black	6:1	26:1	26:1	Light Orange	6:1	42:1	42:1
Purple	5:1	15:1	15:1	Purple	5:1	32:1	32:1
Gray	4:1	11:1	11:1	Gray	4:1	24:1	24:1
None	3.6:1	8:1	8:1	None	3.5:1	14:1	14:1

**Metering tips determine dilution mix ratio for each chemical product. Changes in water inlet pressure and / or flowrate can affect output mix ratios such that they differ from these tables. Refer to product label for dilution recommendation**

Part Number	Dema 100.15K.NUA	Nuance Code ZM111
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**TABLE 1**

## 4 GPM FLOW RATE PROPORTIONER, FOR ¼" I.D. TUBING

**NOTE:** All induction rates are based on a water pressure of 40 psi.

### III. **OPERATION:**

The TEMPO is activated by turning the on-off ball valve fully counterclockwise. When the desired amount of chemical water solution has been obtained turn the ball valve fully clockwise.

**Note: Do not use ball valve to throttle chemical water flow rate; this will result in inconsistent induction rates.**

### IV. **SERVICING:**

Caution: Turn off water supply before servicing.

#### A. **Proportioner fails to draw chemical:**

1. Pinch outlet tube to create back pressure, which will cause unit to prime. The foot valve will keep the inlet tube primed thereafter.
2. Insufficient water supply pressure. 20 PSI is the minimum allowable.

#### B. **Proportioner stops drawing chemical:**

1. Inspect foot valve for dried chemical or dirt. Soak in hot water to clean.
2. Proportioner metering tip clogged with dried chemical. Remove tip and try injecting in hot water. If there is no suction, remove proportioner and soak in hot water to clear interior passages.
3. Inspect proportioner to ensure that there are no mineral deposit build-ups on the nozzle. If so, soak proportioner body in deliming solution. (Remove all parts attached to proportioner before soaking in deliming solution.) **Note: Use care when handling hazardous chemicals.**

#### C. **Proportioner continues to draw chemical after water valve closes:**

Chemical supply is higher than bottom of discharge tube creating a natural siphon. Lower the supply vessel or hang up outlet tube after use.

#### D. **Valve Malfunction:**

Check that the button moves freely in & out and that a "click" can be heard when the button is pushed and released, indicating that the magnet is activating the plunger properly. Remove cover. To inspect internal parts, unscrew magnet housing and carefully pull off the enclosing tube so as not to drop the plunger, kick-off spring, and spacer. Check for dirt or damage impending plunger and kick-off spring movement. Inspect the diaphragm, making sure the two small pin holes (bleed hole) in the diaphragm convolution are clear to allow the valve to close.

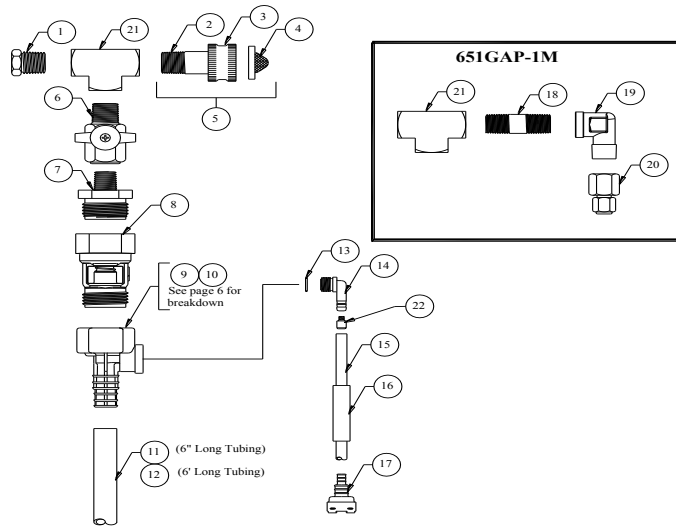
**Caution: When servicing unit, be sure that replacement parts have been installed according to the drawing.**

### **MERCHANDISE RETURNS:**

NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.

**PRODUCT WARRANTY:**

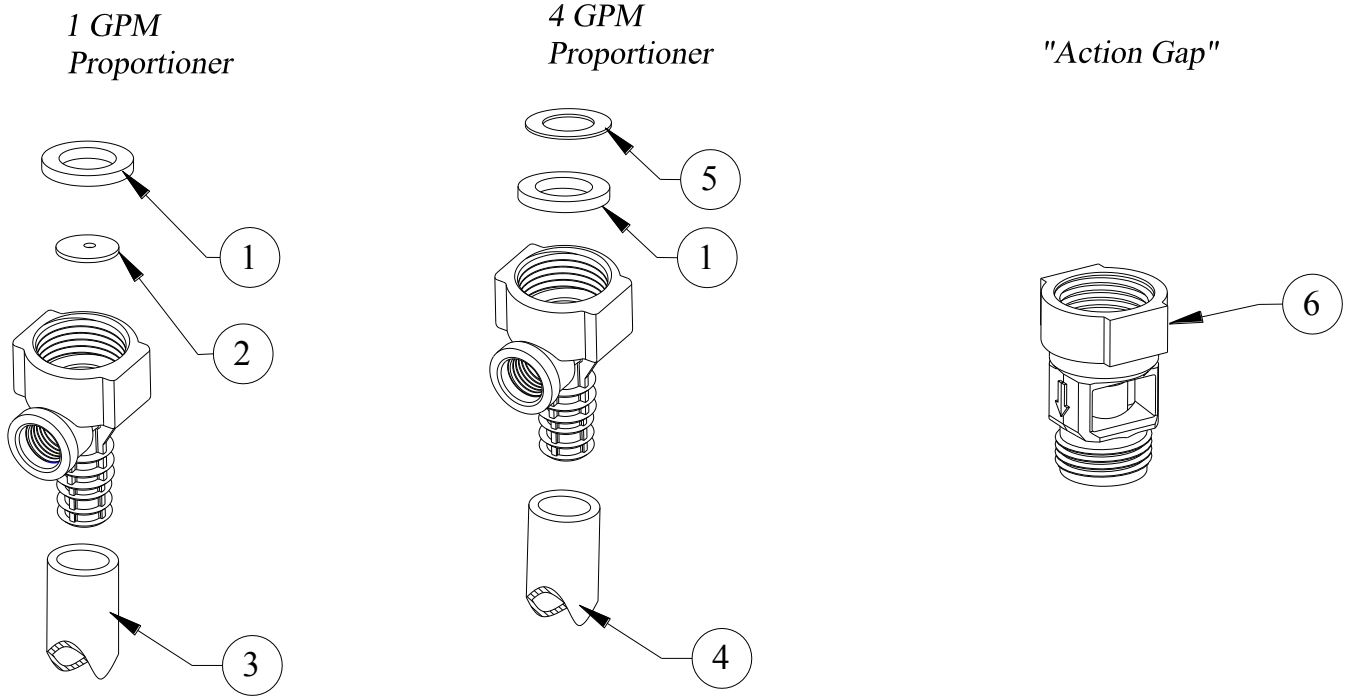
Nuance Solutions products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "o"- rings, diaphragms, PVC tubing, squeeze tubing, caps and gaskets are not covered under warranty. This warranty is extended only to the original buyer of Nuance Solutions products. If products are altered or repaired without prior approval of Nuance Solutions, this warranty will be 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. Nuance Solutions assumes no liability for damages. Return merchandise authorization number must be granted in advance of returned units for repair (See "Merchandise Returns" above).



ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	65-4	Plug 1/4" NPT	11	16-3-6	1/2" ID X 6" Lg. Vinyl Outlet Tube (1 GPM Only)
2	65-17-2	Swivel Adapter 1/4" NPT X Hex Broach	12	61-21	1/2" ID X 6' Lg. Vinyl Outlet Tube (4 GPM Only)
3	65-10	Hose Coupling	13	63-78	O-Ring
4	100-38	Strainer Washer	14	63-79	Inlet Barb (1/4" Barb)
5	65-5	Swivel Adapter Kit GHFT X 1/4" NPT	15	100-12	1/4" ID X 8' Lg. Vinyl Supply Tubing
6	65-7	1/4" Ball Valve	16	61-107-2	Ceramic Weight (1/4" Tube)
7	61-122-2	Adapter G.H. X 1/4" NPT	17	100-16E	Foot Valve
8	16-30	Action Gap Assembly	18	25-137-12U	Nipple
9	61-22-3	4 GPM Proportioner (1/4" Barb) – 651GAP	19	61-121	Elbow 1/4" St. Plated.
10	61-99-2	1 GPM Proportioner (1/4" Barb) – 651GAP-1	20	25-51-12	Compression Fitting
			21	65-30-1	1/4" NPT Pipe Thread

ACCESSORIES		
ITEM	PART NO.	DESCRIPTION
1	100-15K	Metering Tip Kit (14 Sizes) (1/4" Barb)

## PROPORTIONER AND ACTION GAP BREAKDOWN



NO.	PART NO.	DESCRIPTION
1	150-6	Rubber Washer
2	61-36	Flow Disk
3	16-3-6	1/2" I.D. x 6" Lg. Vinyl Outlet Tube (1 GPM Only)
4	61-21	1/2" I.D. x 6" Lg. Vinyl Outlet Tube (4 GPM Only)
5	63-89-1	Rubber Washer (1/32" Thick)
6	16-30	Action Gap Assembly

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