Wunder-Bar *Dispensing Systems*

IMPORTANT! IMPORTANT!
ATTENTION PRE-MIX INSTALLER (USER)

These instructions for the installation and use of PRE-MIX dispensers are

VERY IMPORTANT!

Proper installation and use of **PRE-MIX** dispensers will result in their satisfactory operation.
Improper installation and use of **PRE-MIX** dispensers will result in excessive product ***FOAMING!***

1. **PRE-MIX** carbonated beverages must be dispensed cold -- at less than 40 degrees fahrenheit
2. Carbonated beverages should not be over carbonated, should not contain more than 3.5 to 3.6 volumes of CO^2 gas in suspension.

At 60 degrees F temperature, product will absorb an equal volume of CO2 gas at zero pressure. Pressurizing the product tank with 14.7 PSI of CO2 gas will add one volume of gas; 29.4 PSI will add two volumes of gas; 44.1 PSI will add three volumes of gas.

Therefore, on very close coupled, or short run installations, the CO2 gas pressure should not exceed 45 PSI. Runs over 10-15 feet in length (distance from PRE-MIX tanks to dispensers) will require additional pressure added on the order of 1 PSI for each additional 10' of run length.

FOAMING CAUSES

* PRE-MIX carbonated beverages must be dispensed at temperatures below 40 degrees F, or excessive foaming may result. Cold plates must be fully covered with ice that has not, "bridged", or "iglooed".

* Over carbonation: Release the head pressure on the PRE-MIX tanks, and shake the tanks vigorously to drive the CO2 pressure from the product up into the head space. Make certain the CO2 gas pressure 'IN' has been removed prior to this operation.

* Over carbonation will result if PRE-MIX product tanks are stored in very cold areas for relatively long periods of time, because more CO2 gas will enter into solution at lower temperatures, even though pressure remains the same.

* Over carbonation will result if CO2 pressure on PRE-MIX product tanks is greater than equilibrium pressure (should not be greater than 3.5 - 3.6 volumes of gas).

* CO2 high pressure regulator (0-2000PSI) showing 400 lbs. capacity or less indicates CO2 tank should be replaced. Low pressure readings on this regulator result in foaming.

* When replacing empty product tanks with full tanks, any partially full tanks not replaced must be first in line next to the CO2 cylinder. Otherwise foaming will result.

* Foreign particles trapped within dispensing heads will cause foaming.

* Pressures applied to product tanks which are substantially below equilibrium pressures will result in foaming. Gas will leave the product in the form of large bubbles which will rise into the product lines or cooling units, and cause spitting when they reach dispenser heads.

AUTOMATIC BAR CONTROLS, INC. 790 Eubanks Drive Vacaville, California 95688 (707) 448-5151
Setting the standards for over a quarter of a century. Facsimile (707) 448-1521

Wunder-Bar *Dispensing Systems*

ATTENTION

Consistent with our long standing commitment to providing products of the highest quality to our customers, Automatic Bar Controls, Inc has developed and implemented significant improvements in our Pre-Mix Soft Drink Dispenser. The improvements include changes to internal parts and button arrangement.

The improved Pre-Mix dispenser may be easily identified by the soda and water buttons which are blue in color.

The proper installation and use of the Pre-Mix dispenser cannot be over emphasized. Refer to the enclosed Pre-Mix dispenser installation and use instruction sheet.

The following is the linkage color chart for Pre-Mix bar dispensers:

Green----------"A" Linkage

Blue----------"B" Linkage

Black----------"C" Linkage

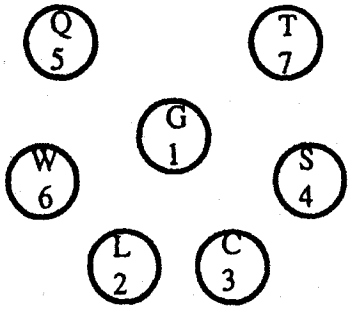
Red----------"D" Linkage

WUNDER-BAR PRE-MIX BAR DISPENSER

CLEANING

Dip (immerse the entire dispenser head in a pitcher of warm water each night after use. Turn dispenser head upside down (buttons down) and shake vigorously two or three times. ***IT IS NOT NECESSARY TO ACTIVATE THE BUTTONS, THEREBY WASTING PRODUCT!***

The Wunder-Bar dispenser has been carefully designed and thoroughly tested to improve upon the ever present problem of pre-mix foaming. The PATENTED valve assemblies present a smooth (slick) surface for passage of carbonated beverages. Computerized machining centers are employed to assure all product surfaces are free of burning or roughness of surfaces which cause turbulence in other pre-mix dispensers.



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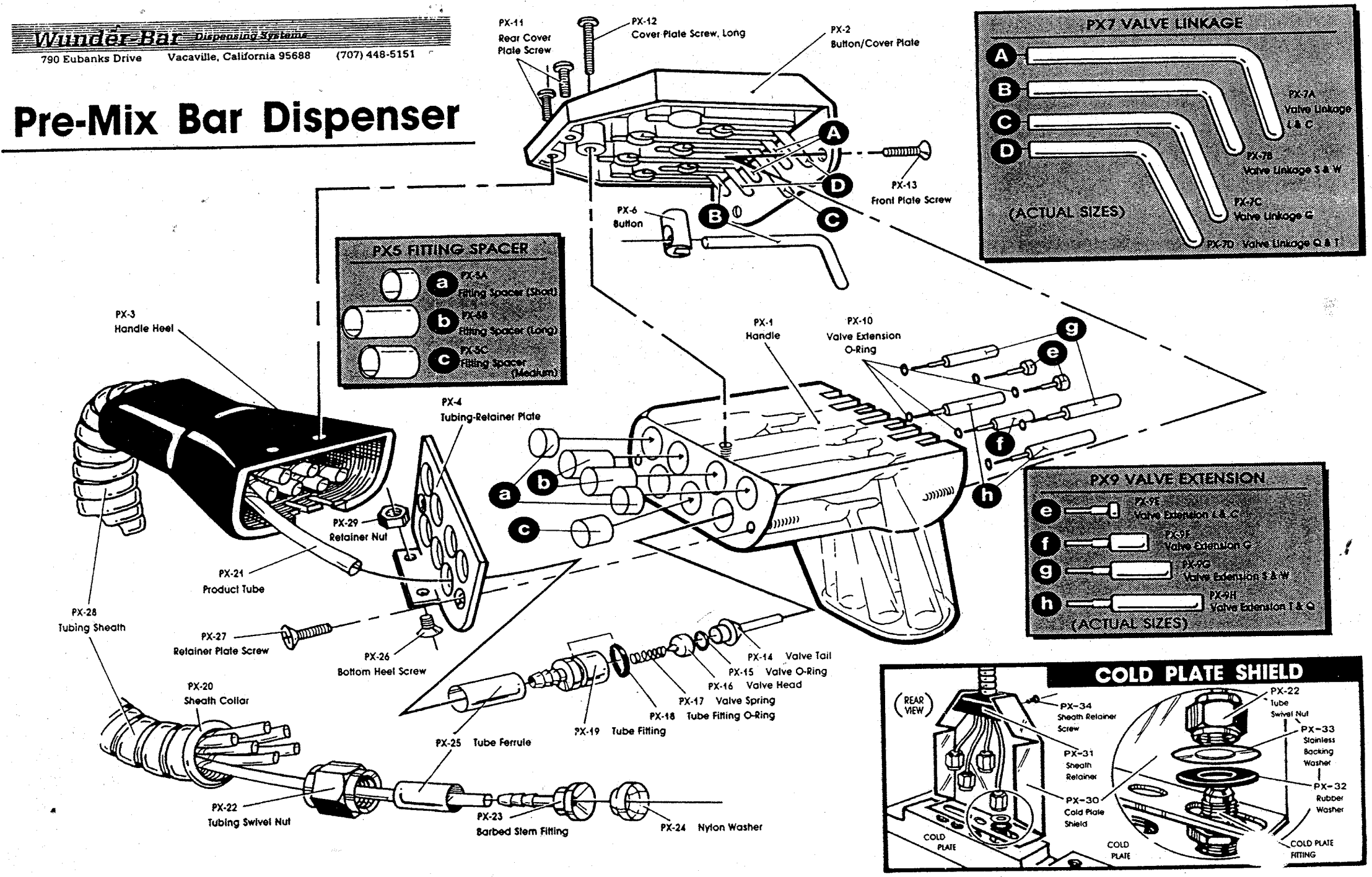
Pre-Mix Bar Dispenser



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Wunder-Bar Dispensing Systems

FACTORY SUGGESTED LIST PRICE SCHEDULE

WUNDER-BAR MECHANICAL PRE-MIX FLEX HOSE DISPENSER

EFFECTIVE: JUNE 1, 1999

PART NO.	DESCRIPTION	LIST PRICE
PX-1	Handle	$ 130.00
PX-2	Button Cover Plate	12.00
PX-3	Handle Heel	4.00
PX-4	Tubing Retainer Plate	9.00
PX-5A	Fitting Spacer (Short)	2.00
PX-5B	Fitting Spacer (Long)	2.00
PX-5C	Fitting Spacer (Medium)	2.00
PX-6	Button (Specify Character)	2.00
PX-7A	Valve Linkage (L & C)	4.00
PX-7B	Valve Linkage (S & W)	4.00
PX-7C	Valve Linkage (G)	4.00
PX-7D	Valve Linkage (T & Q)	4.00
PX-9E	Valve Extension (L & C)	7.50
PX-9F	Valve Extension (G)	7.50
PX-9G	Valve Extension (S & W)	7.50
PX-9H	Valve Extension (T & Q)	7.50
PX-10	Valve Extension O-ring	0.40
PX-11	Rear Cover Plate Screw (Short)	0.20
PX-12	Rear Cover Plate Screw (Long)	0.20
PX-13	Front Cover Plate Screw	0.20
PX-14	Valve Tail	2.00
PX-15	Valve O-ring	0.40
PX-16	Valve Head	2.00
PX-17	Valve Spring	0.40
PX-18	Tube Fitting O-ring	0.40
PX-19	Tube Fitting	3.50
PX-20	Sheath Collar	2.00
PX-21	Product Tube	1.00
PX-22	Tube Swivel Nut (Specify 1/4" or 5/16")	0.60
PX-23	Barbed Stem Fitting	3.50
PX-24	Nylon Flare Washer	0.20
PX-25	Tube Ferrule	0.30
PX-26	Bottom Heel Screw	0.20
PX-27	Retainer Plate Screw	0.20
PX-28	Tube Sheath	40.00
PX-29	Retainer Nut	0.20
PX-29A	Retainer Nut Washer	0.20
PX-30	Cold Plate Ice Shield	25.20
PX-30A	Special 7 Pass Cold Plate Ice Shield	26.00
PX-31	Sheath Retainer	1.00
PX-32	Rubber Washer	0.50
PX-33	Stainless Steel Backing Washer	1.00
PX-34	Sheath Retainer Screw	0.20
PX-35	Drip Cup	5.00
PX-36	Hose Hanger	5.00
PX-37	Hose Hanger Kit Complete less Ice Shield Hardware	12.00
PX-38	Hose Hanger Kit Complete with Ice Shield Hardware	16.00
PX-39	Premix Parts Kit Complete	82.10
PX-40	Premix Crimp Tool	65.00
PX-41	Premix Stainless Steel Locking Handle Cover	55.00
PX-42	Premix Button Cap (Specify Character)	2.00

Prices are subject to change without notice.

PMXPARTS 99

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SITUATIONS WHICH MAY CAUSE PRE-MIX PRODUCT FOAMING

A. INSTALLATION:

1. Product line runs which have line splices or tee fittings.
   - **a.** All product line runs should be run directly from the product tank to the cold plate.

2. Any burr on the inside surfaces of flare washers, fittings or tubing.
   - **a.** Omit the use of flare washers wherever possible. When flare washers are used, **DO NOT** over tighten them. Over tightening causes the flare washer to deform and cause a burr or blockage in the path of the pre-mix product.
   - **b.** Insure that all "Barbed" fittings are free from burrs on the ends and inside surfaces.
   - **c.** Insure that the inside of the product tubing has not been "cut" or "sliced" when installing barbed fittings. When the inside surface of the product tubing is "sliced", a burr of tubing will develop in the product path.

3. Cold Plates:
   - **a.** Insure sufficient size pre-mix cold plates are installed. Do not install post-mix cold plates. A cold plate of insufficient size will not properly cool the pre-mix product prior to dispensing.
   - **b.** Insure cold plates are fully covered with ice that has not "bridged" or "iglooed".
   - **c.** Insure that all "IN" and "OUT" cold plate connections are tight.

4. Foreign Material in System:
   - **a.** Recommend "Flushing" out the product tubing and cold plate prior to installation of pre-mix dispenser. Any foreign material trapped in the tubing, cold plate or dispenser, will cause foaming.

5. Product Supply Tank Location:
   - **a.** Insure that product supply tanks are located in areas that are not subject to excessive heat. If the pre-mix product is very warm when entering the cold plate, the product will not be sufficiently cooled when exiting the cold plate.

6. Dispenser Installation:
   - **a.** Connect dispenser product tube swivel nuts directly to cold plate. Do not connect additional tubing of fittings between the cold plate and dispenser.

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B. OPERATION:

1. **PRE-MIX** carbonated beverages must be dispensed cold - at less than 40 degrees Fahrenheit.

2. Carbonated beverages should not be over carbonated, should not contain more than 3.5 to 3.6 volumes of CO^2 gas in suspension.

3. **OVER** carbonation will result if CO^2 pressure on **PRE-MIX** product tank is greater that **equilibrium pressure** (should not be greater than 3.5 to 3.6 volumes of gas).

4. **Over carbonation** will result if **PRE-MIX** product tanks are stored in very cold areas for relatively long periods of time, because **more** CO^2 gas will enter into solution at lower temperatures, even though pressure remains the same.

5. **Over carbonation:** if over carbonation occurs, release the head pressure on the **PRE-MIX** tanks, and shake the tanks vigorously to drive the CO^2 pressure from the product up into the head space. Make certain the CO^2 gas pressure "IN" has been removed prior to this operation.

6. Pressures applied to product tanks which are **substantially** below equilibrium pressures will result in **foaming**. Gas will leave the product in the form of large bubbles which will rise into the product lines or cooling units, and cause **spitting** when they reach dispenser heads.

7. CO^2 pressure regulator (0-2000PSI) showing 400 lbs. capacity or less indicates CO^2 tank should be replaced. Low pressure readings on this regulator result in **foaming**.

8. When replacing empty product tanks with full tanks, any **partially full** tanks not replaced must be first in line next to the CO^2 cylinder. Otherwise, **foaming** will occur.