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INSTALLATION INSTRUCTIONS

SLIM-LINE CONVERTIBLE BAR GUN INFORMATION & INSTRUCTIONS

CAUTION: NEVER SUBMERGE THE BAR GUN IN HOT WATER OR PLACE NEAR A HEAT SOURCE. THIS MAY CAUSE THE TUBES TO BURST.

REVISION "C" OR GREATER (NEW FEATURES)

IMPORTANT: Cornelius Convertible Bar Gun has new features not found in other bar guns. Please read the following document to become familiar with the features of the Convertible Bar Gun. For installation instructions, see separate document.

THE FOLLOWING INFORMATION IS INCLUDED:

1. An Introduction to the Bar Gun.
2. Changing Flavor Positions between Carb & Non–Carb.
3. Changing Flavor Labels on Convertible Two–Piece Buttons.
4. Change Over Valve Installation Procedures.
5. Using the Water Brix Adjustment Screw (in the head).
6. Button and Manifold Adjustments Screw Identification.

1. INTRODUCTION TO THE CONVERTIBLE BAR GUN

The Convertible Bar Gun readily allows the change from carb to non–carb as well as non–carb to carb with the turn of a valve called the **CHANGE OVER VALVE (C.O.V.)**. Each flavor line of the Convertible Bar Gun is equipped with one C.O.V.

NOTICE: The C.O.V. is NOT a reusable part. Like other seals, once removed, it should never be used again. Always replace removed / used C.O.V.'s with new C.O.V.'s. *Never reuse a C.O.V.*

There is no need to remove the C.O.V. to make a conversion between carb and non–carb. Change Over Valves (C.O.V.'s) should only be removed if they leak. Leakage is unlikely if the C.O.V.'s are installed correctly.

The orientation of the valve determines which type of water (still water or soda water) is supplied to each particular line. The C.O.V.'s are located below the lower case (Slim-Line Figures 5, items 2 and 6).

For Slim-Line Style Bar Guns, soda and water direction arrows are located on inside of the lower plate as noted in Figure 6.

Any C.O.V. whose arrow points in the same direction as the soda water channel (arrow points to the right) will supply carbonated water for carbonated beverages. Any C.O.V. whose arrow points in the same direction as the water channel (arrow points to the left) will supply water for non–carbonated beverages.

The Convertible Bar Gun will be delivered with all C.O.V.'s correctly oriented for each line. Refer to Figure 4 for preset positions. No movement of the C.O.V. should be required. However, in order to make a change between carb and non carb, refer to the instructions under "Changing between Carb and Non–Carb". If the C.O.V. should require replacing, refer to the instructions under "Change Over Valve Installation Procedure".

The Convertible Bar Gun also features a still water brix adjustment screw in the head which can be used to achieve a reduction in the flow rate of still water supplied to a specific group of lines as shown in Figure 6. Any of the respective lines whose C.O.V. is oriented towards the soda side, is not affected by this metering screw.

NOTICE: Most state and city agencies require a check valve to be installed at the inlet to the city water line when hooking up any carbonated equipment, such as a carbonator or a bargun.

2. CHANGING FLAVOR POSITIONS BETWEEN CARB & NON–CARB

1. Remove the nozzle.
2. Unscrew the screws of the lower case (Slim Line see Figure 5, item 27). Remove the lower case.
3. Determine which of the C.O.V.'s corresponds to the line which is to be converted.
4. Determine which direction the C.O.V. should be turned as described in "INTRODUCTION TO THE CONVERTIBLE BAR GUN".
5. Fit the C.O.V. key (Figure 1) over the C.O.V.'s hex shaped head and turn the C.O.V. with the key 1/2 turn to either side as required. The C.O.V. may leak while turning, however, the leak should stop once turning is finished. Press firmly.
6. Remove the C.O.V. key and check the alignment of the arrow on the C.O.V. head with your desired direction. Make adjustments if needed to make sure the C.O.V. is aligned with the arrows of the label.
7. Check for leaks at the C.O.V. Leaks can occur at the following two places:

   A. The top of the C.O.V. to outside.

      Leaks on top of the C.O.V. can readily be seen as coming from the inside of the C.O.V. bore to atmosphere on the bottom of the Bar Valve.

   B. Between the water channel and the soda water channel.

      Leaks between the water channel and the soda water channel are harder to detect. These may be observed as a migration of small soda bubbles (CO_2 gas) from the soda water channel to the water channel.

      Hold the Convertible gun with the nozzle end of the gun in your hand and the tube flex facing upward. Look closely for soda bubbles traveling from the soda water side (channels on the left side of the C.O.V.'s) to the water side (channels on the right side of the C.O.V.'s). Observe for two minutes. Pay close attention to the valve that was turned.

8. If no leak is found, wipe the head with a soft towel, affix the label and put the lower case back on. Put the nozzle back in the head.

   If a leak is found, turn the C.O.V. one full turn and check for leaks again. If leaking continues, replace the C.O.V.

9. Purge all of the lines by pushing all of the buttons of the Bar Gun, one at a time for a few seconds.

3. CHANGING FLAVOR LABELS ON CONVERTIBLE TWO-PIECE BUTTONS

The Convertible Bar Gun comes with a Two-Piece Button. The Two-Piece Button provides the ability to change the flavor labeling on the buttons without relieving the pressure on the Bar Gun. It is made up of a Button Base and a Button Insert (Figure 5, Items 8 and 26). The Base, which is made of a clear plastic, is installed from under the top case of the Bar Gun. The Insert, which is made of rubber and has the flavor labeling or letters on it, is installed into the Base. The Insert can be removed from (pried out of) the Button Base with a small slotted screwdriver or other small tool. To install an Insert, simply push into the Button Base.

4. CHANGE OVER VALVE INSTALLATION PROCEDURES

NOTICE: A– Typically the cause of leaks of the C.O.V. seal is due to improper installation. If the C.O.V. is inserted correctly there will be no leaks. Please read the following instructions carefully.

B– The C.O.V. is NOT a reusable part. Like other seals, once removed, it should be discarded and a new C.O.V. installed. There is no need to remove the C.O.V. to make a carb or non–carb conversion.

1. Shut off the water, soda water and the syrup line whose C.O.V. is being replaced. Purge the lines by pressing the appropriate buttons.
2. Remove the nozzle.
3. Unscrew the screws of the lower case. Remove the lower case.
4. For the Slim-Line Bar Gun, remove retaining plate (see Figure 5, item 12).
5. Using a pair of pliers or the key, remove the old C.O.V. by pulling and rotating in an outward fashion. Once removed discard the old C.O.V.
6. Lubricate the new C.O.V. using Dow DC200 lube oil. IMPORTANT: Dip the C.O.V. in oil so that it is completely saturated / covered.
7. Fit the C.O.V. key over the C.O.V.'s hex shaped head.
8. Position the C.O.V. over the corresponding hole of the gun. Make sure that the spring is positioned between the C.O.V. and the spindle as shown on Figure 2.
9. Press down carefully and gently while maintaining the C.O.V. as straight as possible. Increase your pressing force and rotate slightly until it is inserted into the hole. The C.O.V. should rest flush with the "T" slot of the gun. It may require an extra inward push near the bottom of the hole/bore to allow the C.O.V. to fit flush.
10. Make sure that the arrow of the inserted C.O.V. points directly towards the desired direction as indicated on the label. Make adjustments if needed.
11. Reopen all of the closed lines. Purge the line that had the C.O.V. replaced of all excess oil by dispensing several drinks. Dispense more if needed.
12. Purge all of the remaining lines one at a time for a few seconds.
13. Check for leaks at the C.O.V. Leaks can occur at the following two places:

    A. The top of the C.O.V. to outside.

    B. Between the water channel and the soda water channel.

    Leaks on top of the C.O.V. can readily be seen as coming from the inside of the C.O.V. bore to atmosphere on the bottom of the Valvhose.

    Leaks between the water channel and the soda water channel are harder to detect. These may be observed as a migration of small soda bubbles (CO_2 gas) from the soda water channel to the water channel.

    Hold the Convertible gun with the nozzle end of the gun in your hand and the tube flex facing upward. Look closely for soda bubbles traveling from the soda water side (channels on the left side of the C.O.V.'s) to the water side (channels on the right side of the C.O.V.'s). Observe for two minutes. Pay close attention to the valve that was turned.

14. If no leak is found, wipe the head with a soft towel, affix the label and put the lower case back on (Figure 5). Put the nozzle back in the head.

    If a leak is found, turn the C.O.V. one full turn and check for leaks again. If leaking continues, replace the C.O.V.

5. USING THE WATER BRIX ADJUSTMENT SCREW (IN THE HEAD)

NOTICE: The still water brix adjustment screw can only decrease the flow rate of still water to the specific lines shown on Figure 1. Therefore products which require the lowest still water flow rates should be dispensed from these positions.

> **CAUTION:** Adjusting the head metering screw requires a fine flat head screw driver whose blade width is 1/8" maximum. Using a larger screw driver may result in shaving the threads in the Valve–head as the metering screw is turned down.

1. Remove the nozzle.
2. Set the flow rate of water at the manifold for the product which requires the largest amount of water. For example, a product with a brix ratio of five parts water to one part syrup.
3. The metering screw is not effective when it is flush with the surface of the Valve–head. To reduce the water flow, turn the metering screw clockwise.
4. Continue turning and measuring the flow rate until the desired reduced flow rate is achieved.
5. Put the lower case back on.
6. Put the nozzle back on.

6. BUTTON AND MANIFOLD ADJUSTMENT SCREW IDENTIFICATION

Please note that the 8, 10, 12, and 14 button Bar Guns have different numbering layouts for buttons and manifold adjustment screws.

For button and manifold adjustment screw identification, refer to Figure 8 (8 and 10 button) and Figure 9 (12 and 14 button) bar guns respectively.

7. PROPER CARE & CLEANING

PROPER CARE

1. The Cornelius Bar Gun, when properly cared for will provide many year of reliable service. To insure proper operation, we recommend soaking the gun in luke warm water or cold water on a weekly basis or whenever the buttons tend to stick due to build up of syrup residue. This cleaning process will not damage the bar gun.
2. The Bar Gun Head is not intended to be used as an ice pick and should never be utilized to crack or chip ice!

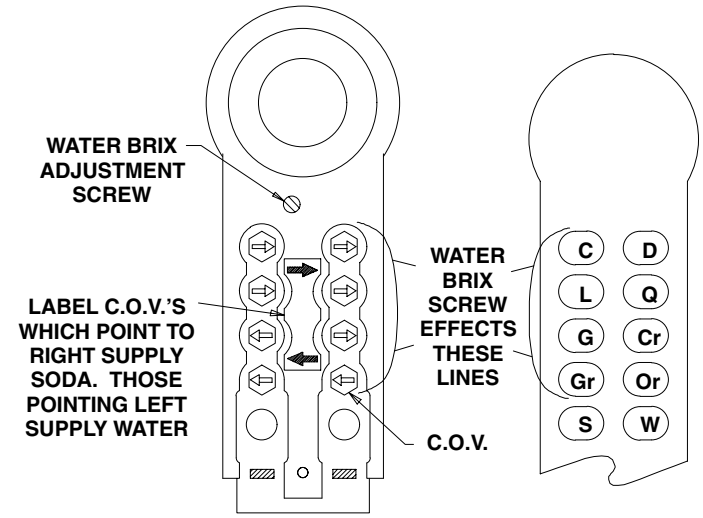
CLEANING

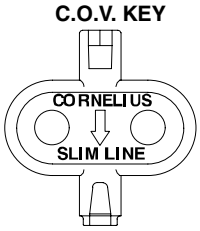
1. The easiest and most convenient is to soak the Bar Gun Head in a blender can with luke warm water (NEVER HOT) for 10–15 minutes. This allows the sticky syrups to be washed off the head, and cleans the buttons.
2. The nozzle is easily removed and should be cleaned often, inside and out. Remember to clean the inside of the drip cup frequently.
3. Wipe the stainless steel flex line using a damp, soapy cloth and slightly warm water. Clean or wipe your flex line daily.

4. The Bar Gun Head buttons and button retaining plate area can sometimes require extra cleaning due to build–up of dried syrup and tight spaces. The warm water soak already explained can be supplemented by scrubbing action of a toothbrush and Q–tip. If further cleaning is necessary, the button plate and buttons can be removed.

NOTE: The Bar Gun must be depressurized first, since the button plate retains the buttons and valve spindles when the bar gun is pressurized!

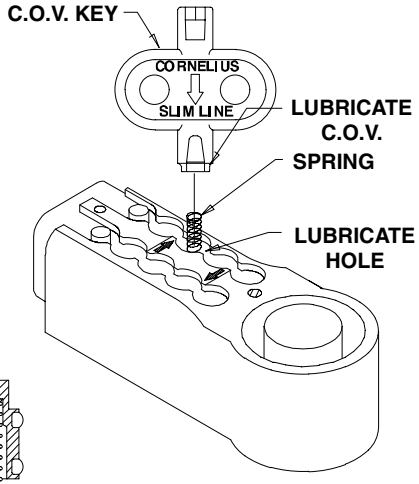
5. Soak the head and parts in warm water to wash the syrup off. Make sure all the parts have been replaced and screws tightened before repressuring the bar gun.

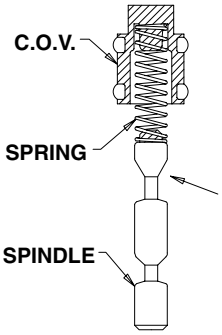




TO CONVERT BETWEEN CARB AND NON-CARB, SIMPLY REMOVE BOTTOM CASE AND TURN C.O.V. 180° USING THE KEY OR A 7/32-IN. SOCKET WRENCH

FIGURE 1





SPRING MUST FIT OVER THE SPINDLE'S RECESSED AREA AND COV'S INSIDE BOSS AS SHOWN HERE

FIGURE 2

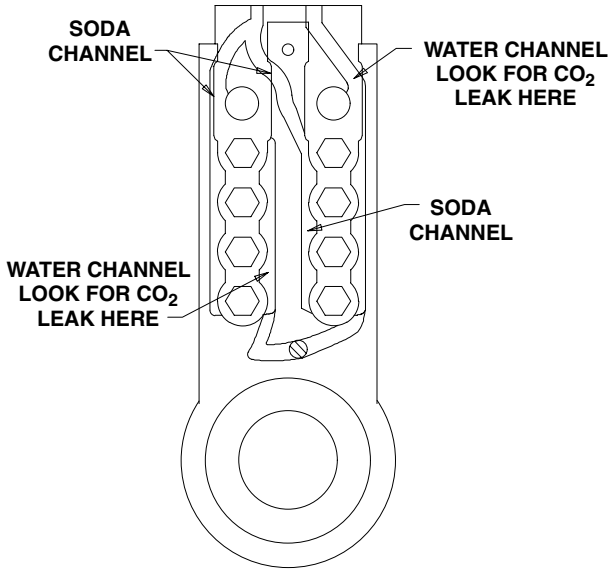


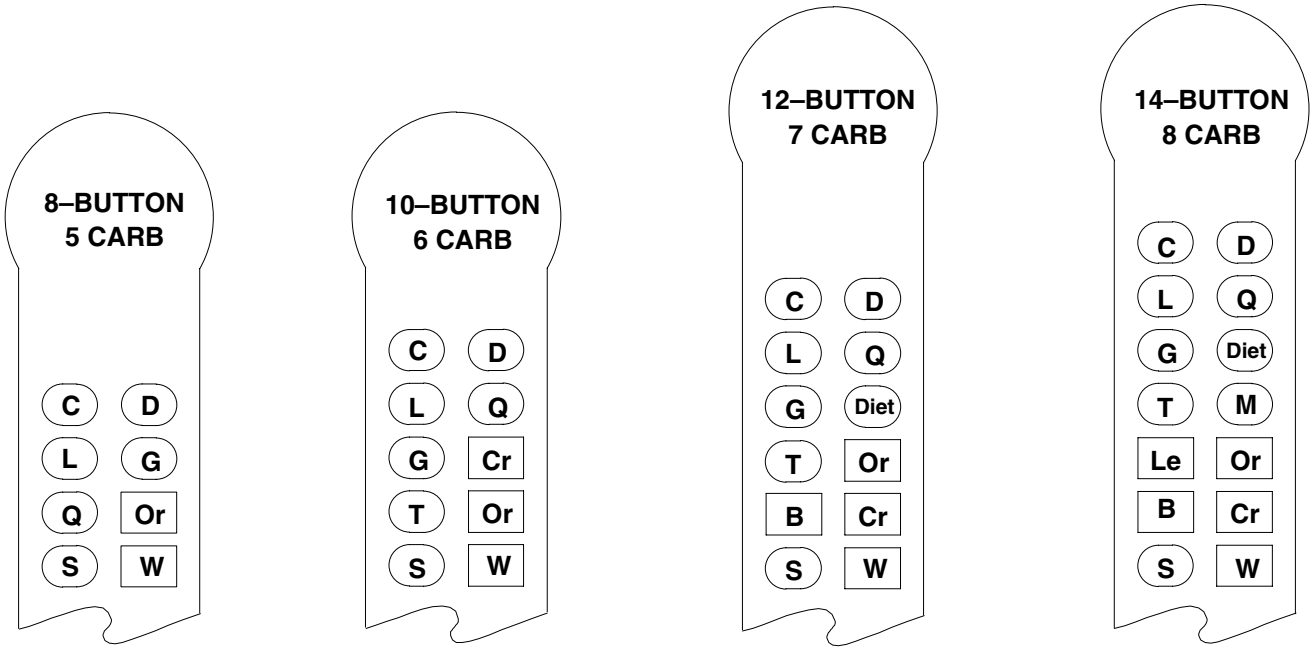
FIGURE 3

CONVERTIBLE 8, 1O, 12, 14 BUTTON BAR GUNS

STANDARD BUTTON CONFIGURATION AND CARBONATED POSITIONS

CARBONATED FLAVOR (”S” IS NOT FLAVORED)

NON–CARBONATED FLAVOR (”W” IS NOT FLAVORED)



ADDITIONAL BUTTON INSERT KITS AVAILABLE

FIGURE 4.

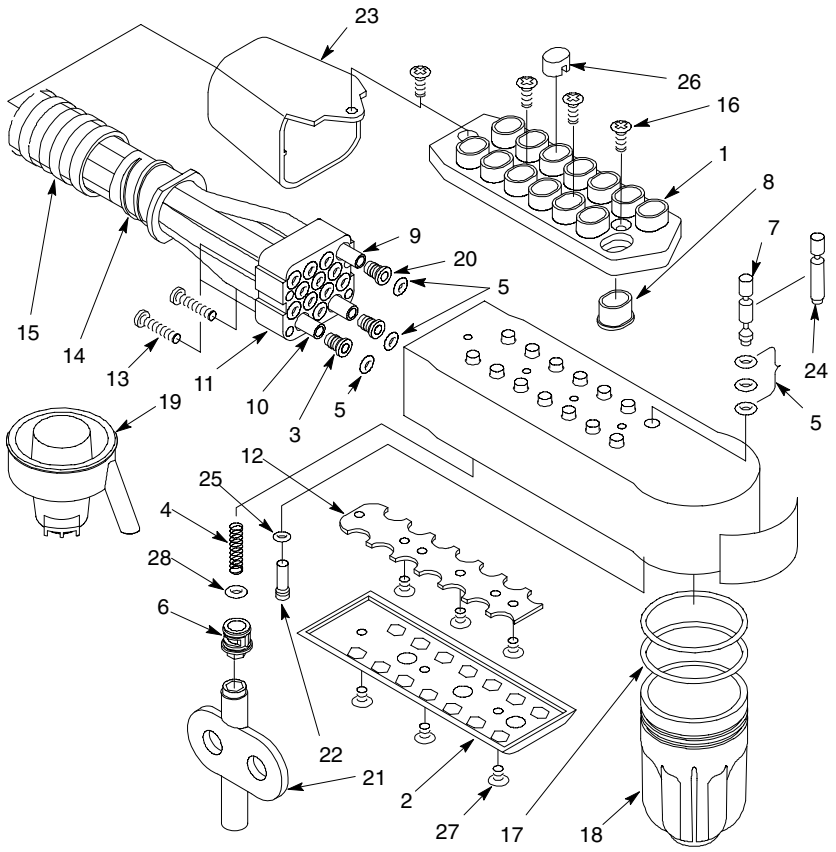
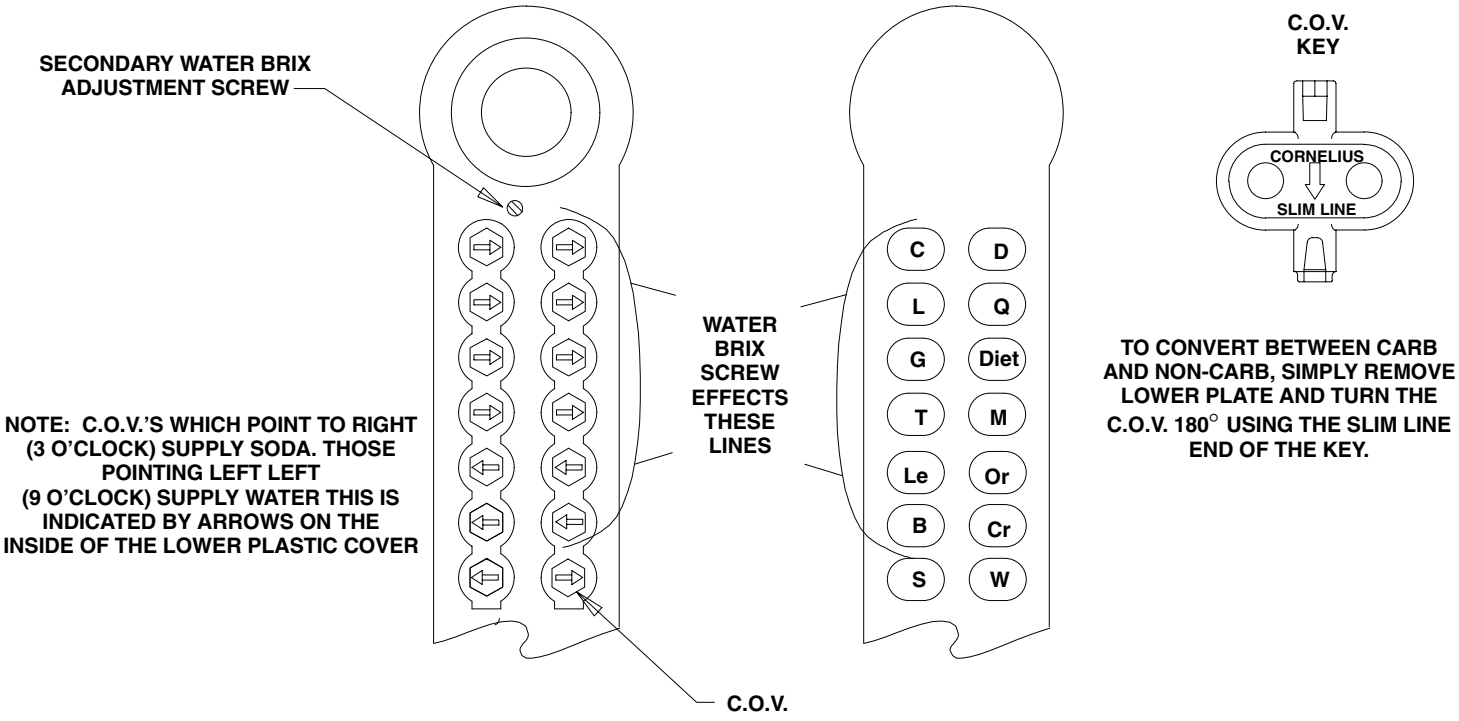


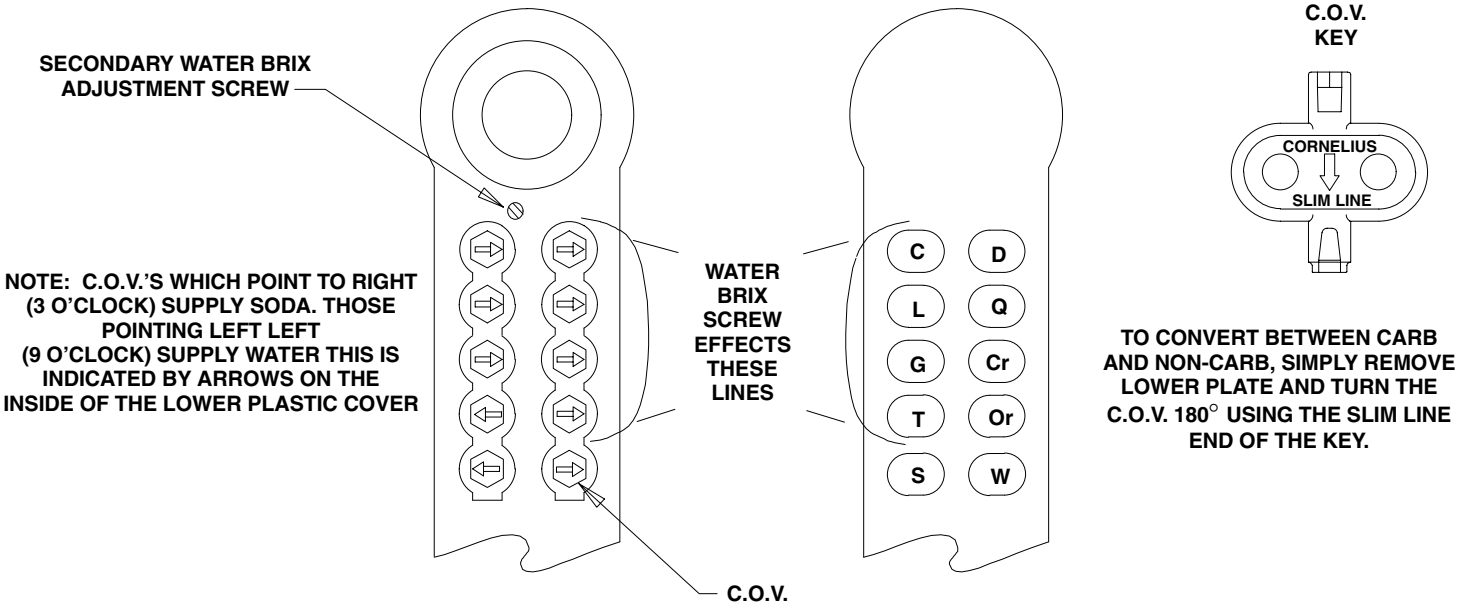
FIGURE 5. 8-10-12 OR 14 BUTTON CONVERTIBLE BAR GUN (SLIM LINE)

Item No.	Part No.	Name
1	770000109	Button Plate, 14-Button, Black
	770500315	Button Plate, 14-Button, Red
	770500200	Button Plate, 14-Button, Blue
	770000146	Button Plate, 12-Button, Black
	770000313	Button Plate, 12-Button, Red
	770500201	Button Plate, 12-Button, Blue
	770000142	Button Plate, 10-Button, Black
	770000316	Button Plate, 10-Button, Red
	770500202	Button Plate, 10-Button, Blue
	770000145	Button Plate, 8-Button, Black
	770000317	Button Plate, 8-Button, Red
	770500203	Button Plate, 8-Button, Blue
2	770000107	Lower Plate, 12 or 14-Button, Black
	770000319	Lower Plate, 12 or 14-Button, Red
	770500000	Lower Plate, 12 or 14-Button, Blue
	770000143	Lower Plate, 8 or 10-Button, Black
	770000323	Lower Plate, 8 or 10-Button, Red
	770500001	Lower Plate, 8 or 10-Button, Blue
3	300721000	Head Manifold Wedge, Soda and Water
4	770000156	Valve Spring
5	316991000	O-Ring, No. 8
6	770000147	Changeover Valve
7	770000103	Valve Spindle
8	302000202	Button Base
9	770000119	Tube, Syrup
10	302001090	Tube, Product and Water
11	770000106	Head Manifold
12	770000104	Retaining Plate, Changeover Valve, 12 or 14 Button
	770000144	Retaining Plate, Changeover Valve, 8 or 10 Button

Item No.	Part No.	Name
13	770000155	Screw, Head Manifold, No. 6-32 By 7/8-In. Long
14	770000111	Bushing, Flex, 7/8 I.D., 12 or 14 Button
	1230	Bushing, Flex, 7/8 I.D., 8 or 10 Button
15	770000151	Flex, 15/16 I.D. By 33-In. Long, 12 or 14 Button
	1225	Flex, 1-In. Dia. By 33-In. Long, 8 or 10 Button
16	317000000	Screw, Case, No. 6-32 By 3/8-In. Long
17	1220	O-Ring, No. 26
18	1221	Nozzle, Black
	1262	Nozzle, Transparent, Smoke (Red Gun)
	302002064	Nozzle, Blue
19	770000110	Brix Nozzle, Convertible
20	316986003	Head Manifold Wedge, Syrup
21	1231	Key, Changeover Valve
22	302000200	Head (Brix) Metering Screw
23	770000108	Tail Piece, 12 or 14-Button, Black
	770000321	Tail Piece, 12 or 14-Button, Red
	770500100	Tail Piece, 12 or 14-Button, Blue
	770000149	Tail Piece, 8 or 10-Button, Black
	770000324	Tail Piece, 8 or 10-Button, Red
	770500101	Tail Piece, 8 or 10-Button, Blue
24	770000105	Pre-Mix Valve Spindle
25	316997000	O-Ring, No. 6
26	3096332xx	Button Insert (Specify Label)
27	770000154	Screw, Lower Plate, No. 6-32 By 1/4 C-Sunk
28	317996000	O-Ring, No. 7
29	318454000	Holder, Drip Tray (Not Shown)
30	318467000	Drip Cup (Not Shown)
31	313402051	Tube, Drain (Not Shown)



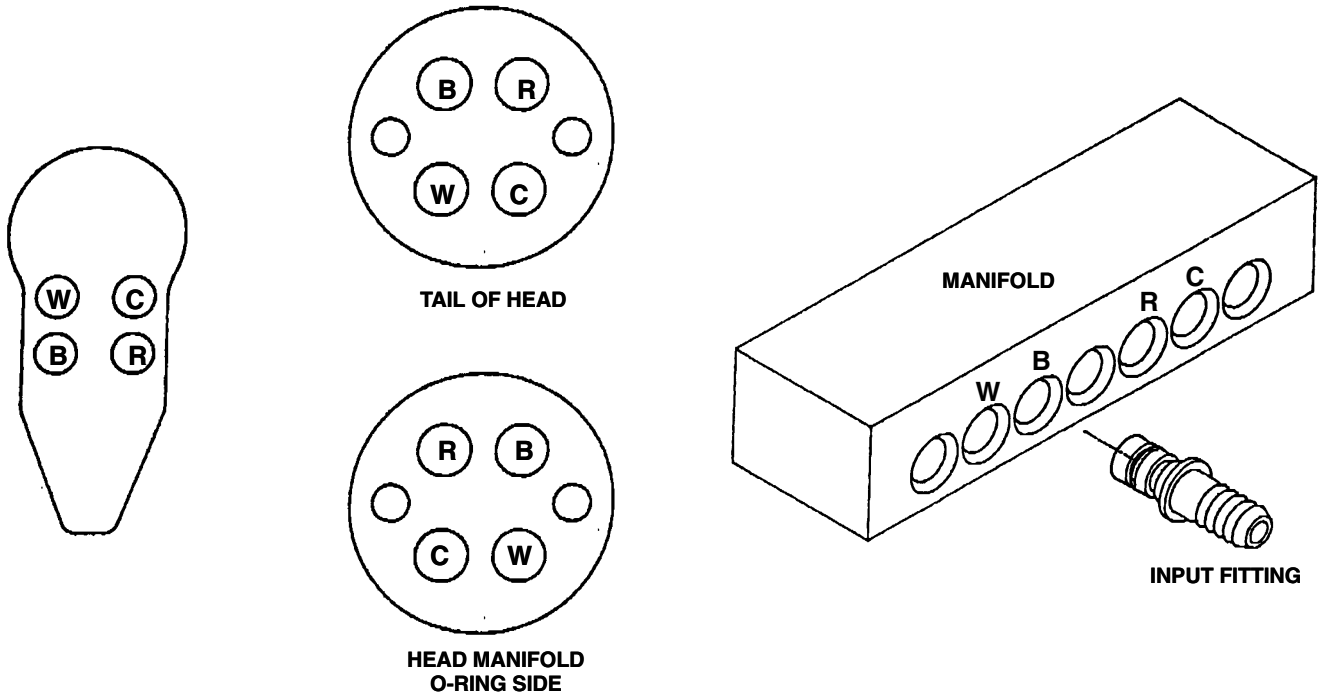
SLIM LINE: 14-BUTTON



SLIM LINE: 10-BUTTON

FIGURE 6

WINE VALVHOSE
BUTTON/MANIFOLD CONFIGURATION



7 BUTTON STANDARD VALVHOSE
BUTTON/MANIFOLD CONFIGURATION

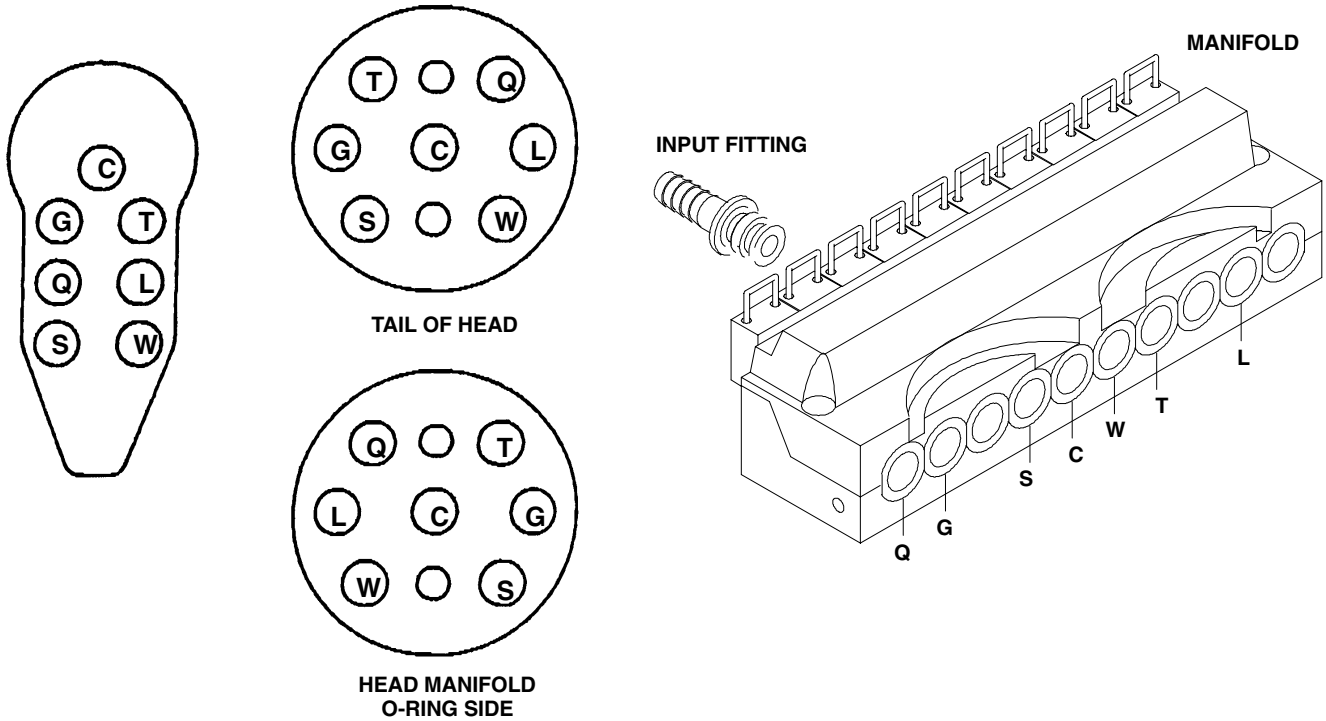
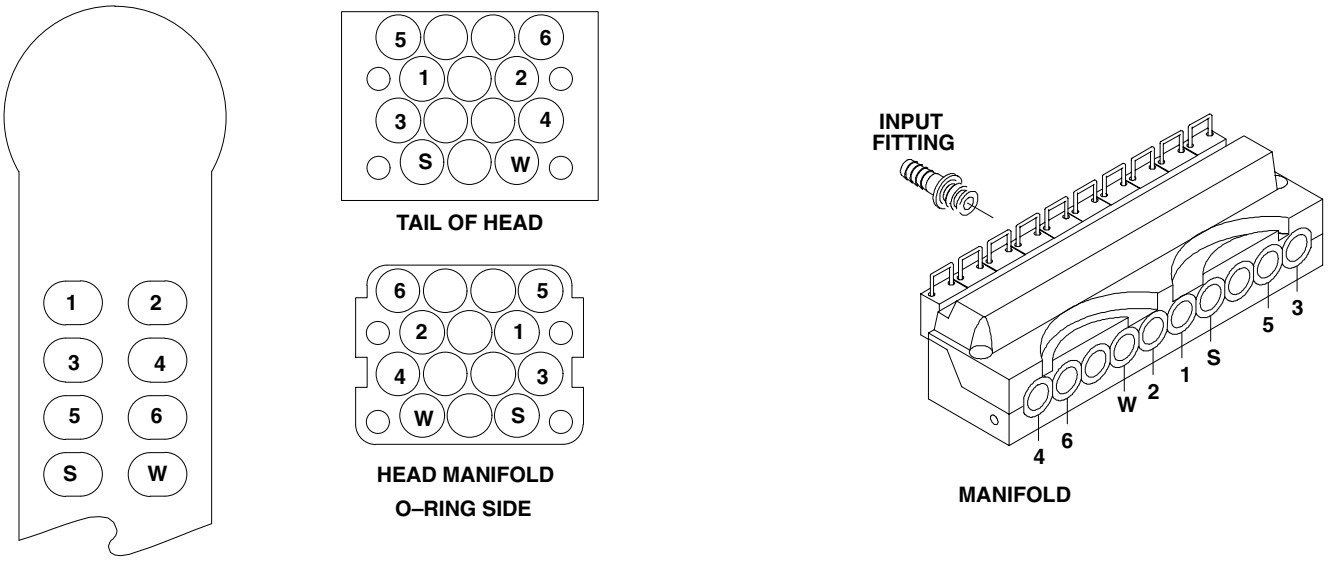


FIGURE 7

8 BUTTON CONVERTIBLE SLIM LINE

BUTTON/MANIFOLD CONFIGURATION



10 BUTTON CONVERTIBLE SLIM LINE

BUTTON/MANIFOLD CONFIGURATION

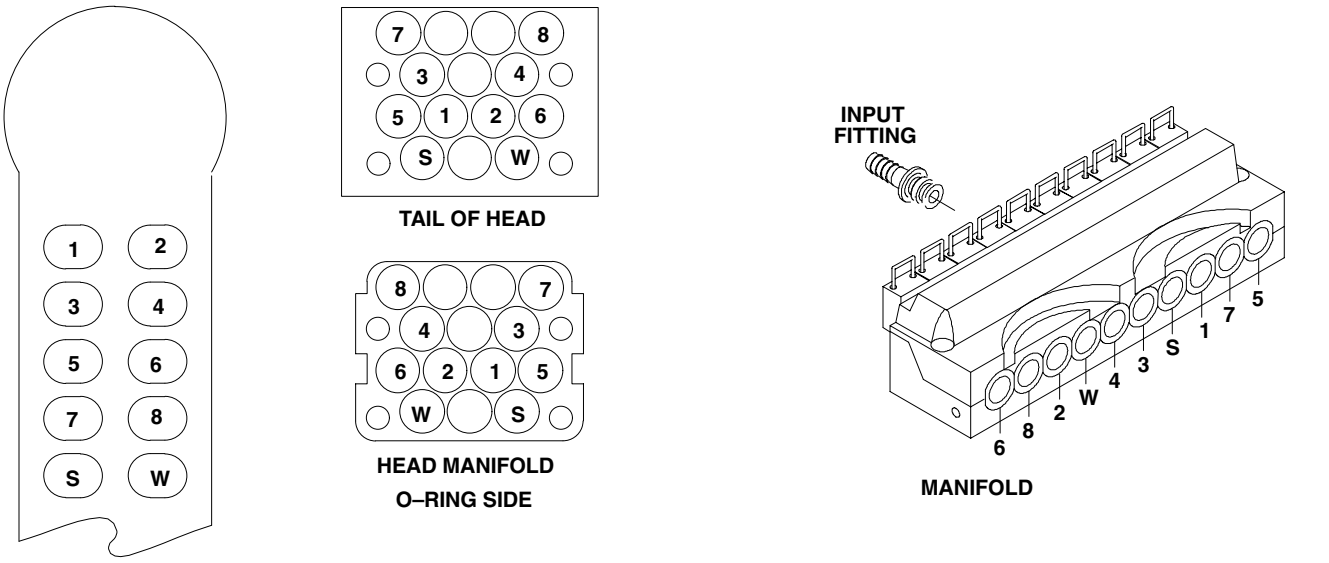
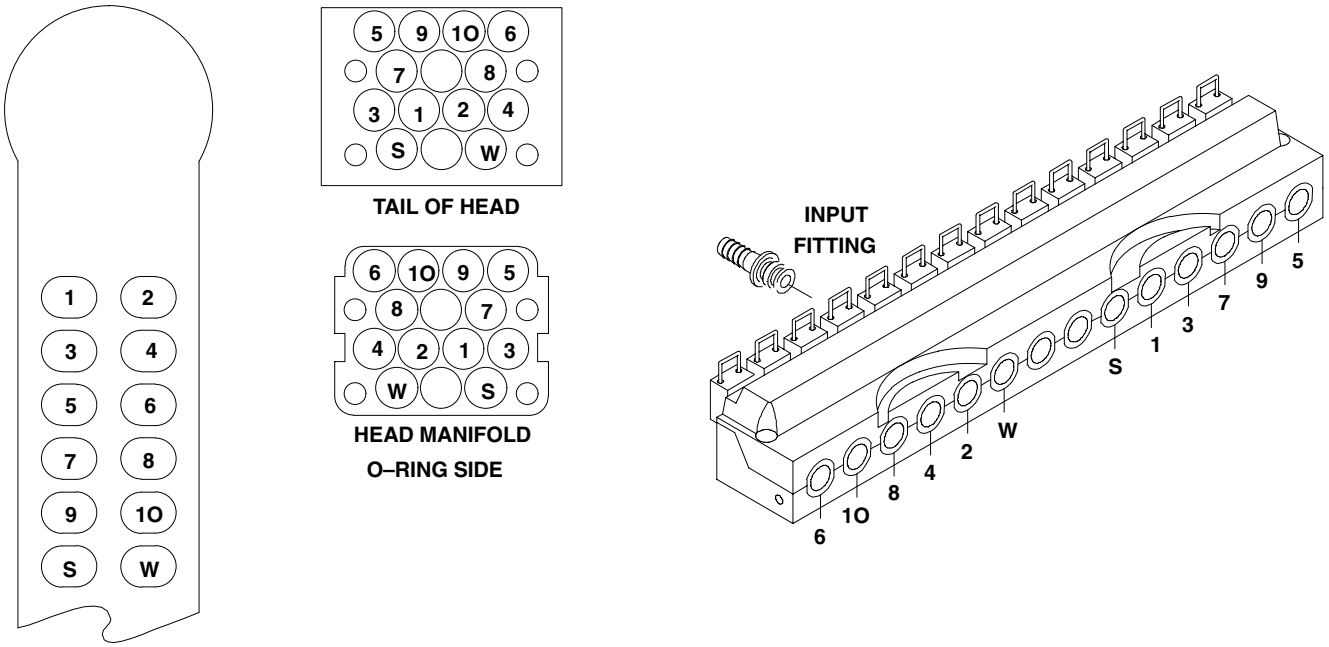


FIGURE 8

12 BUTTON CONVERTIBLE SLIM LINE

BUTTON/MANIFOLD CONFIGURATION



14 BUTTON CONVERTIBLE SLIM LINE

BUTTON/MANIFOLD CONFIGURATION

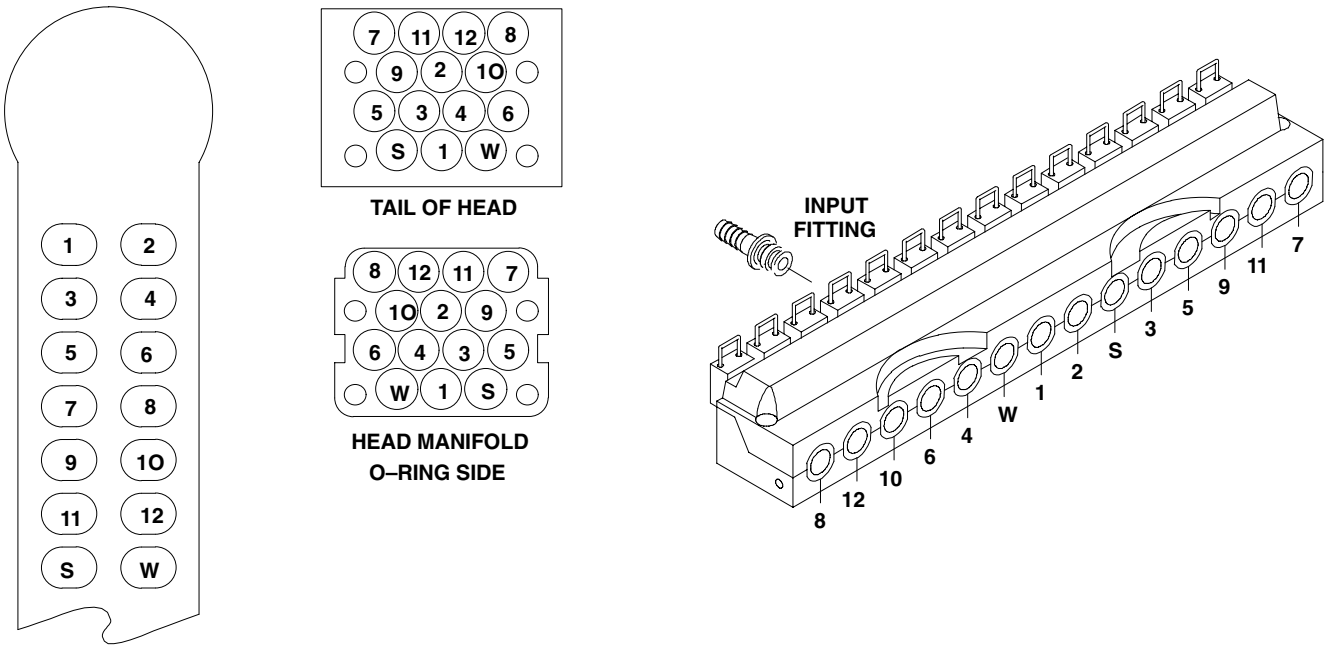


FIGURE 9