Installation / Care / Use Manual

Original Instructions

Model: LMABF8WSS2KN

Description

Combination Refrigerated Drinking Fountain (Cooler) and Bottle Filling Station delivers chilled, clean potable drinking water. Top Bottle Filling section offers touchless activation to dispense water for bottles. While the bottom Water Cooler section, which houses the refrigeration and filtration systems, delivers a steady stream of water for direct drinking at the press of front and sidebars.

Ratings

- Electrical: 220-240 Vac, 50Hz, (See Nameplate for Amperage), 1 phase.
- Ambient Air Temperature: 50-89.6 °F (10-32°C).
- Water Pressure: 20-105 psig (0.14-0.72 MPa).
- Maximum Water Temperature: 90 °F (32 °C).
- Sound Pressure level (A-weighted): < 70 dBA
- Ingress Protection: IP20
- For Indoor Commercial Use only.
- Water Inlet: 3/8” (9.5mm) O.D. unplated copper tube.
- Waste Water Outlet: 1-1/4” (31.75mm) O.D. tube
- Refrigerant : R290

Definitions

DANGER – Indicates death or serious injury will result if proper precautions are not taken.
WARNING – Indicates death, serious injury or property damage can result if proper precautions are not taken.
CAUTION – Indicates some injury or property damage may result if proper precautions are not taken.

Authorized Service Personnel – Factory trained personnel or personnel having working knowledge of electrical, plumbing and machine (appliance) maintenance procedures. Service personnel must have specialized training for flammable refrigerants.

Safety

DANGER

- Please read these instructions completely before starting the installation or performing any service. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death.
- After installation, keep these instructions in a safe location for future reference.
- Electric supply must be identical in voltage, cycle, and phase to that specified on nameplate.
- Electrical supply may require Ground Fault Circuit Interrupter (GFCI) protection. Consult specific application and local codes.
- A means for disconnecting electrical supply to the unit must be incorporated in the fixed wiring in accordance with wiring rules. This is to allow electrical disconnection of the unit from electrical supply after installation.

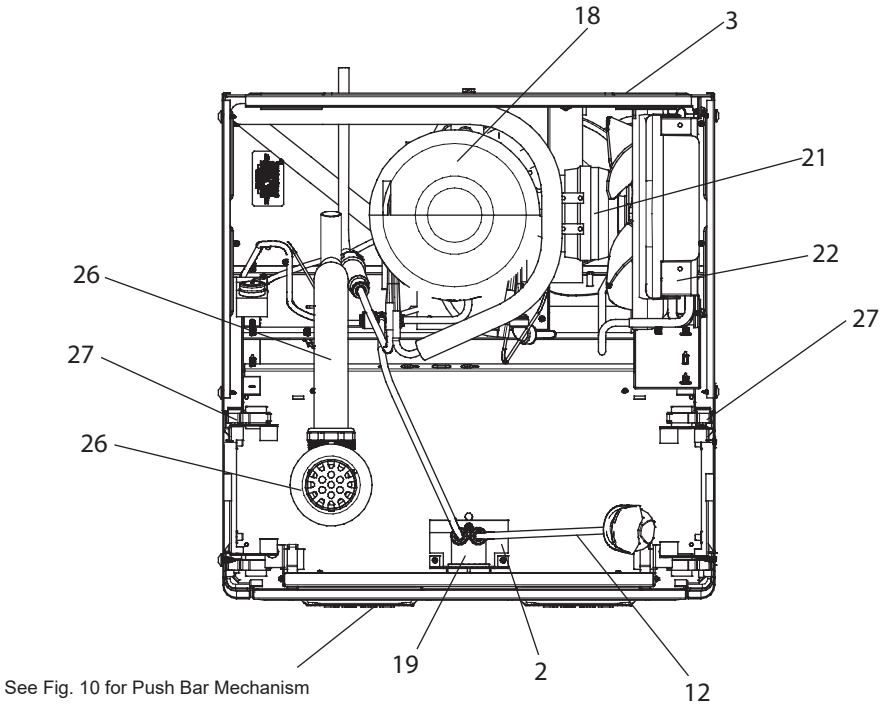
WARNING

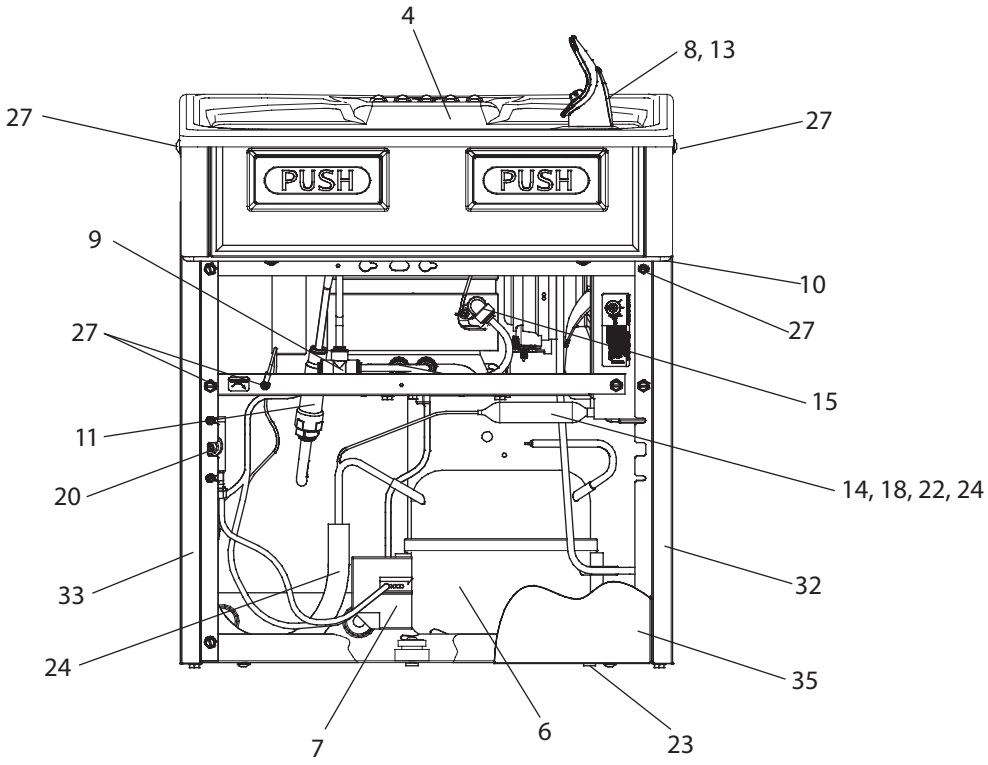
- Keep clear of obstructing all ventilation openings in the appliance enclosure or in the structure for building-in.
- Place in a well ventilated area to prevent accumulation of refrigerant.
- No open flame or sparks during service or repair.
- For use with clean, clear potable drinking water only. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before the system.
- Installation and connection to water and electrical mains must be in compliance with local and national laws.
- All Installation and Service work must be performed by trained / authorized service personnel.

Notice: Coolers that use flammable refrigerants, such as R-600a (isobutane), R-290 (propane) will be marked with a specific symbol that notifies the servicer of the presence of these refrigerants. A service provider should review this marking and follow all instructions from the original equipment manufacturer.

CAUTION

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory, or mental capabilities or lack of experience and knowledge if they have been given supervision or instructions concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- To prevent a metallic taste or increased metal content in the water due to an electrolysis process caused by electrical feedback from the grounding of electrical equipment to water supply and water waste mains, connect to these mains using non-conductive materials. The provided solenoid valve regulator assembly meets this requirement.





Pictured is unit only without bottle filler.

Figure 1

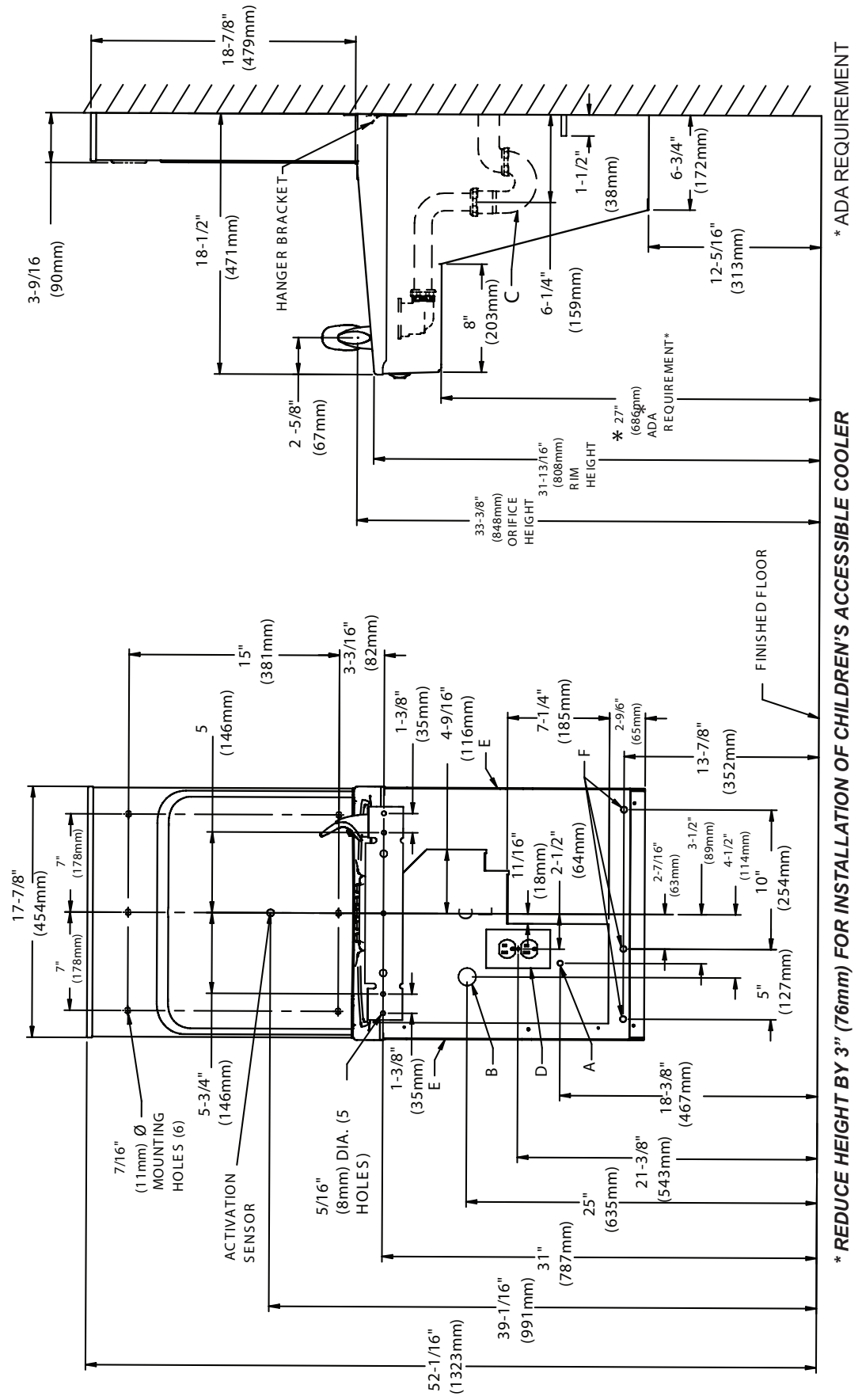


Figure 2

LEGEND

A= RECOMMENDED WATER SUPPLY LOCATION 3/8"(10mm)O.D. UNPLATED COPPER TUBE CONNECT STUB WITH SHUT OFF (BY OTHERS). 3"(76mm) MAXIMUM OUT FROM WALL

B= RECOMMENDED LOCATION FOR WASTE OUTLET. DRAIN STUB 2 IN. OUT FROM WALL

C= 1-1/4" TRAP NOT FURNISHED

LEGEND

D= UNIT EQUIPPED WITH IEC C14 SOCKET. CORD NOT PROVIDED. ELECTRICAL OUTLET PER LOCAL CODE.

E= INSURE PROPER VENTILATION BY MAINTAINING 6" (152 mm) (MIN.) CLEARANCE FROM CABINET LOUVERS TO WALL.

F= 7/16" (11mm) BOLT HOLES FOR FASTENING UNIT TO WALL..

Installation

For correct and safe installation, please read these instructions completely.

DANGER

- All Installation work must be performed by an authorized service person.
- Disconnect electrical supply serving the Installation area to reduce risk of electrocution. Do not puncture the refrigerant tube.
- Unit not suitable for installations where water jets could be used.

WARNING

- Shut off water supply serving the Installation area to reduce risk of water damage.
- Ensure proper ventilation by maintaining clearance from cabinet louvers to wall on each side of Cooler as specified in installation instructions.
- Never wire compressor directly to electrical supply.
- Thoroughly flush all water lines and fittings of all foreign matter before connecting to Cooler.
- Warranty is void if installation is not made in accordance with current Manufacturing instructions.

CAUTION

- Hose-sets are not to be used for connecting to water mains.
- If inlet pressure is above 105 psig (0.72 MPa), a pressure regulator must be installed in water supply line. Any damage caused by reason of connecting this product to water supply line pressure outside it's rated pressure, is not covered by warranty.
- Tools/Items required but not provided. Tools must be compatible with flammable refrigerant.
  - Water Shut-off Valve with 3/8" (9.5mm) compression outlet
  - Waste Trap (non-metallic)
  - Safety Glasses
  - Protective Gloves
  - 5/16" (8mm) Hex Socket or Flathead Screwdriver
  - 3/32" (2.4mm) Hex Key
  - Fasteners for wall type
  - Flat blade screwdriver
  - Flammable gas monitor

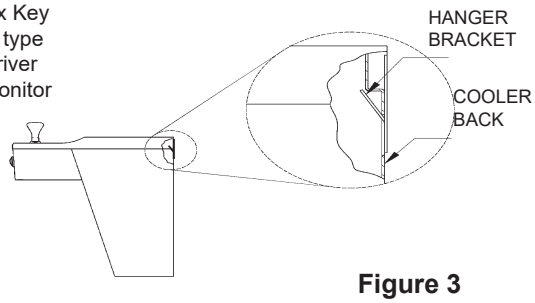


Figure 3

Installation: Hanger Brackets & Trap

1. Remove hanger bracket fastened to back of cooler by removing one (1) screw.
2. Mount the hanger bracket and trap as shown in Figure 3.

NOTE: Hanger Bracket MUST be supported securely. Add fixture support carrier if wall will not provide adequate support.

IMPORTANT:

6 1/4 in. (159mm) dimension from wall to center-line of trap must be maintained for proper fit.

- Anchor hanger securely to wall using all five (5) 7/16" (11mm) dia. mounting holes.

3. Install straight valve for 3/8" (10mm) O.D. tube.

Installation: Cooler

4. Hang the cooler on the hanger bracket. Be certain the hanger bracket is engaged properly in the slots on the cooler back as shown in Fig. 3.
5. Loosen the two (2) screws holding the lower front panel at the bottom of cooler base and two (2) screws at the top. Remove the front panel and set aside.
6. Connect water inlet line
7. Remove the slip nut and gasket from the trap and install them on the cooler waste line making sure that the end of the waste line fits into the trap. Assemble the slip nut and gasket to the trap and tighten securely.

Installation: Bottle Filler

1. Remove two (2) mounting screws with 5/32" (4mm) Allen wrench holding top cover to Bottle Filler (See Fig. 5). Remove top cover. Note do not discard mounting screws, they will be needed to reinstall top cover.
2. Remove wall mounting plate from Bottle Filler. Place wall plate against wall on top of basin. Center the wall plate side to side with the basin. Mark the six (6) mounting holes with a pencil (See Fig. 4).
3. Remove wall mounting plate from wall.

NOTE: Mounting plate **MUST** be supported securely. Add fixture support carrier if wall will not provide adequate support.

4. Install wall mounting plate to wall using six (6) 7/16" (11mm) obround mounting holes (mounting bolts not included) (See Fig. 4). Use appropriate fasteners for your wall type.
5. Feed power cord & 3/8" water line through hole in tower/basin gasket (See Fig 6).
6. Install gasket on bottom of bottle filler tower with gasket support bracket, (2) washers, & (2) screws (See Fig 7).
7. Lay Bottle Filler on water cooler basin and cut insulation from tube even with bottom of gasket, remove this insulation from the 3/8" tube, but do not discard. Feed the power cord (not provided) and waterline through the hole on top of water cooler.

NOTE: To prevent scratching the basin place a towel or soft cloth over the entire basin when working above it.

8. With the power cord (not provided) and waterline through hole on top of water cooler place Bottle Filler on the three (3) angled tabs protruding from the wall mounting plate installed on wall. Make sure round boss in gasket fits in hole of basin.
9. Once Bottle Filler is installed on wall plate tabs, water line and power cord are installed properly, push top of Bottle Filler toward wall and line up top cover two (2) holes.
10. Reinstall Top Cover on Bottle Filler (See Fig. 5) with two mounting screws from step 1 above. Caution, do not over tighten screws.
11. Install remaining tube insulation to the water line from bottle filler, connect Bottle Filler waterline inside of the water cooler by connecting the 3/8" water line to the tee.
12. Install filter cartridge, remove filter from carton, remove protective cap, attach filter to filter head by firmly inserting into head and rotating filter clockwise.

Installation: Bottle Filler (Continued)

13. Turn water supply on and inspect for leaks. Fix all leaks before continuing.
14. Once unit has been inspected for leaks and any leaks found corrected, plug Bottle Filler and unit into wall. Be sure to reinstall fuse to the circuit or switch the circuit breaker back to the “ON” position.
15. Once power is applied to Bottle Filler, the GREEN LED light should illuminate showing good filter status along with the LCD Bottle Counter.
16. Verify proper dispensing by placing cup, hand, or any opaque object in front of sensor area and verify water dispenses. Note: The first initial dispenses might have air in line which may cause a sputter. This will be eliminated once all air is purged from the line.
17. Once unit tests out, install Lower Panel back on water cooler(s). Unit is now ready for use.

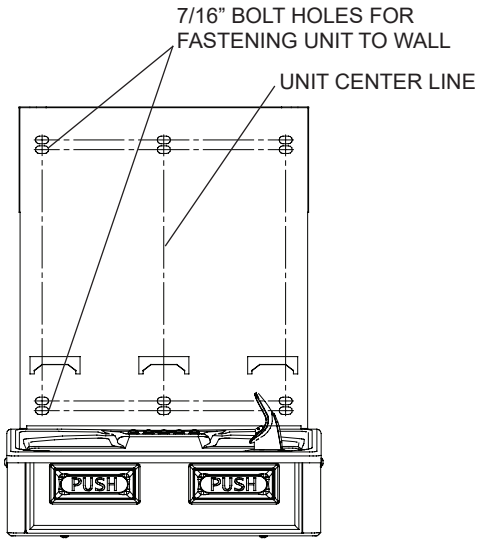


Figure 4

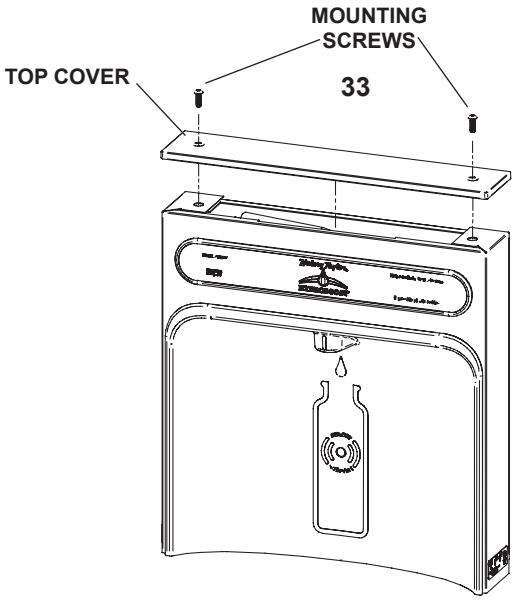


Figure 5

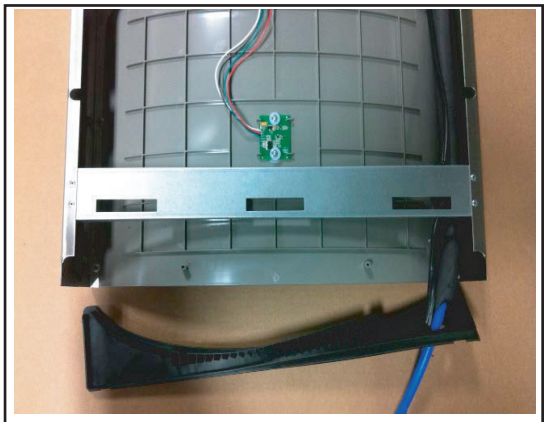


Figure 6

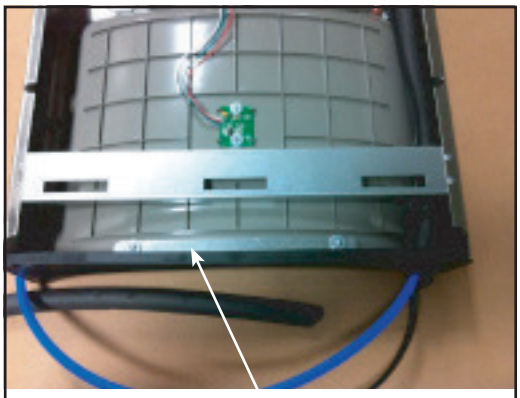


Figure 7 BRACKET, WASHERS, & SCREWS

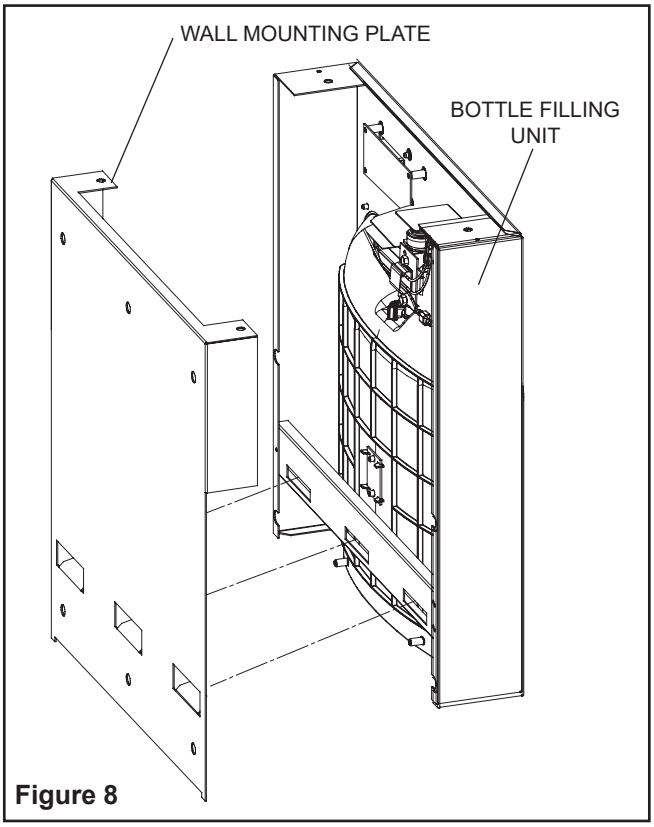


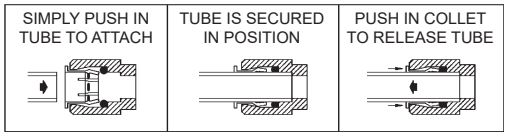
Figure 8

NOTE: If existing plumbing rough in locations (Drain, Water In, and Electric Supply) do not allow the filter to be mounted inside the cooler cabinet the filter can be installed horizontally below the unit. A retrofit kit is available to mount the filter beneath the cooler.

Installation: Start Up (Also see general instructions)

1. Stream height is factory set for 45-50 PSI supply. If supply pressure varies greatly from this, readjust stream height to approximately 1-1/2" (38mm) above the bubbler guard by turning adjustment screw, accessible by removing front push panel (see Fig. 2 & 10).
2. Replace the front panel and secure by re-tightening four (2) screws.
3. If a taste, odor or sediment problem is prevalent, try installing our water filter module.

OPERATION OF QUICK CONECT FITINGS



PUSHING TUBE IN BEFORE PULLING IT OUT HELPS TO RELEASE TUBE

Figure 9

Service

For proper and safe servicing, please read these instructions completely.

DANGER

- All Service and Maintenance must be performed by an authorized service person. Service Technician must have specialized training before servicing systems containing flammable refrigerants. Personnel who have not received certification for completing the Hydrocarbon Training Program and passed the examination, or received equivalent training and certification, do not service any system containing flammable refrigerants.
- Disconnect electrical supply to the unit before any service work to reduce risk of electrocution.
- Shut off water supply serving the unit before any service work to reduce risk of water damage.

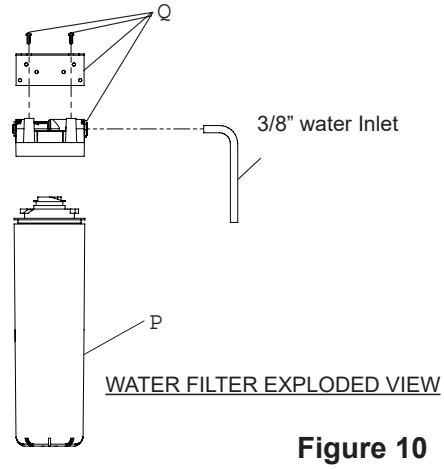
CAUTION

- To prevent scratching the basin, place a towel or soft cloth over the entire basin when working above it.
- Do not puncture tubing.
- No open flame or sparks during servicing or repair.
- Repair and Disposal must be carried out by trained service personnel.
- Place in a well ventilated area to prevent accumulation of refrigerant.
- Tools/Items required but not provided, for Servicing:
  - Safety Glasses
  - Protective gloves
  - 5/16" (8mm) Hex Socket or Flathead Screwdriver
  - 3/32" (2.4mm) Hex Key

Service: Inspection/Cleaning

- Inspect Cooler twice each year for proper operation and performance.
- Inspection of the unit will require disconnecting electrical supply, removal of panels, etc. and reassembly and return to service practices.

1. Cleaning: Warm, soapy water or mild household cleaning products can be used to clean the exterior panels. Extra caution should be used to clean the mirror finished stainless steel panels. They can be easily scratched and should only be cleaned with mild soap and water or Windex glass cleaner and a clean, soft cloth. Use of harsh chemicals or petroleum based or abrasive cleaners will void the warranty.
2. Ventilation: Cabinet louvers and condenser fins should be periodically cleaned with a brush, air hose or vacuum cleaner. Cleaning should be done twice each year or more frequently if needed due to environment. Excess dirt or poor ventilation can cause no cold water and compressor cycling on the compressor overload protector.
3. Water Flow: Confirm proper water flow. If water flow is slow, inspect filter or inline strainer for restriction. Replace filter cartridge if required. Disassemble inline strainer and clean if required.
4. Actuation of Quick Connect Water Fittings: Cooler is provided with lead-free connectors which utilize o-ring water seal. To remove tubing from the fitting, relieve water pressure, push in on the gray collar before pulling on the tubing. To insert tubing, push tube straight into fitting until it reaches a positive stop, approximately 3/4" (19mm). See Figure 13.



WATER FILTER EXPLODED VIEW

Figure 10

Item No.	Part No.	Description
1	51300C	Filter Assy - 3000 Gallon
2	0000000746	Assy-Filter & Bracket includes Fltr Head/Mtg Bkt/ John Guest Ftgs/Screws

BF12 Program: Setting the Control Board

Verify Control Board Software

1. To verify the software program of the control board the unit will need to be shut down and restarted. The chiller (if present) does not need to be shut down and restarted.
2. The units lower panel must be open to access the power cord and wall outlet.
3. Shut down the unit by unplugging the power cord from the wall outlet.
4. Restart the unit by plugging the power cord back into the wall outlet.
5. Upon start up the bottle count display will show the software designation of BF12.

Accessing the Programming Button

1. To access the program button remove the top cover of the bottle filler. Remove the two (2) screws holding top cover to bottle filler with a 5/32" (4mm) allen wrench. Remove top cover. Do not discard mounting screws, they will be needed to reinstall the top cover after programming operations are completed. The programming button is l o cated at the top right side of the unit on the control board.

Reset the Filter Monitor

1. Instructions apply to filtered units only.
2. Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
   - RST FLTR – Reset Filter Monitor
   - SETTINGS – System Settings Sub Menu

   If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
3. When the display changes to "RST FLTR", depress the button again. The display will change to show "FLTR =". Depress the button again and the display will show "FLTR =0"
4. The Green LED should be illuminated indicating that the visual filter monitor has been reset.

Setting the Range of the IR Sensor

1. Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
   - **RST FLTR** – Reset Filter Status LED
   - **SETTINGS** – System Settings Sub Menu

   If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
2. When the display changes to "SETTINGS", depress the button again. The display will change to show:
   - **RNG SET** – Range set for IR sensor.
   - **UNIT TYP** – Type of unit (REFRIG or NON-RFRG)
   - **FLT SIZE** – Select filter capacity
   - **RST BCNT** – Reset bottle count
3. When display shows **"RNG SET"** push program button once the display will show current value (can be 1 – 10) e.g. "RNG = 3".
4. Once display shows current value push the program button to scroll through value of 1 – 10. Select the desired range setting.
5. Once range is selected allow approximately 4 seconds to pass and then the display will go back to bottle counter and be in run mode.
6. Test bottle filler by placing bottle or hand in front of sensor to make sure water is dispensed.

Setting the Unit Type

1. Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
   - **RST FLTR** – Reset Filter Status LED
   - **SETTINGS** – System Settings Sub Menu

   If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
2. When the display changes to **"SETTINGS"**, depress the button again. The display will change to show:
   - **RNG SET** – Range set for IR sensor.
   - **UNIT TYP** – Type of unit (**REFRIG** or **NON-RFRG**)
   - **FLT SIZE** – Select filter capacity
   - **RST BCNT** – Reset bottle count
3. When display shows **"UNIT TYPE"** push program button once the display will show current value. Can be **REFRIG** or **NON-RFRG.**
4. Push button once to change value. Once value is s elected the display will show the new value. Can be **REFRIG** or **NON-RFRG.**
   - **REFRIG** – stands for refrigerated product. In this setting the flow rate is estimated at 1.0 gallon (3.8 l) per minute.
   - **NON-RFRG"** - stands for nonrefrigerated product. In this setting the flow rate is estimated at 1.5gallons (5.7 l) per minute.

   Both "REFRIG" and "NON-RFRG" simulate 1 bottle equal to 20 oz (590 ml).
5. Allow approximately 4 seconds to pass and the display will return to bottle counter and be in run mode.

(continues on next page)

BF12 Program: Setting the Control Board (continued)

Resetting the Bottle Count

NOTE: Once the bottle count is reset to zero there is no way to return to the previous bottle count.

1. Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
   - **RST FLTR** – Reset Filter Status LED
   - **SETTINGS** – System Settings Sub Menu

   If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
2. When the display changes to **"SETTINGS"**, depress the button again. The display will change to show:
   - **RNG SET** – Range set for IR sensor.
   - **UNIT TYP** – Type of unit (REFRIG or NON-RFRG)
   - **FLT SIZE** – Select filter capacity
   - **RST BCNT** – Reset bottle count
3. When display shows **"RST BCNT"** push program button once the display will show current value e.g. "00033183".
4. Once display shows current value push the program button once more to reset back to 0. The display will show "BTLCT = 0" for approximately 2 seconds and then return to run mode showing 00000000 bottles.
5. Testing the bottle counter:
   - **REFRIG** units: Place bottle or hand in front of sensor for 9.4 seconds to see bottle counter count 00000001. (This is based on filling a 20 oz (590 ml) bottle).
   - **NON-RFRG** units: Place bottle or hand in front of sensor for 6.25 seconds to see bottle counter count 00000001.(This is based on filling a 20 oz (590 ml) bottle).

Setting the Filter Capacity

1. Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
   - **RST FLTR** – Reset Filter Status LED
   - **SETTINGS** – System Settings Sub Menu

   If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
2. When the display changes to **"SETTINGS"**, depress the button again. The display will change to show:
   - **RNG SET** – Range set for IR sensor.
   - **UNIT TYP** – Type of unit (REFRIG or NON-RFRG)
   - **FLT SIZE** – Select filter capacity
   - **RST BCNT** – Reset bottle count

   If the button is not pushed again the display will scroll through the four messages above for three cycles and return to run mode.
3. When display shows **"FLT SIZE"** push program button once. The display will show current value. Can be 3000GAL or 6000GAL.
4. Push program button again to display the desired **"FLT SIZE"**.
5. Allow approximately 4 seconds to pass and the display will return to bottle counter and be in run mode.

LEGEND

PUSH BAR MECHANISM

A) Note: Water flow direction.

B) Adjust this screw to eliminate mechanism "Free Play" or continuous flow from bubbler conditions. (See ADJUSTMENT PROCEDURE)

C) Stream height adjustment.

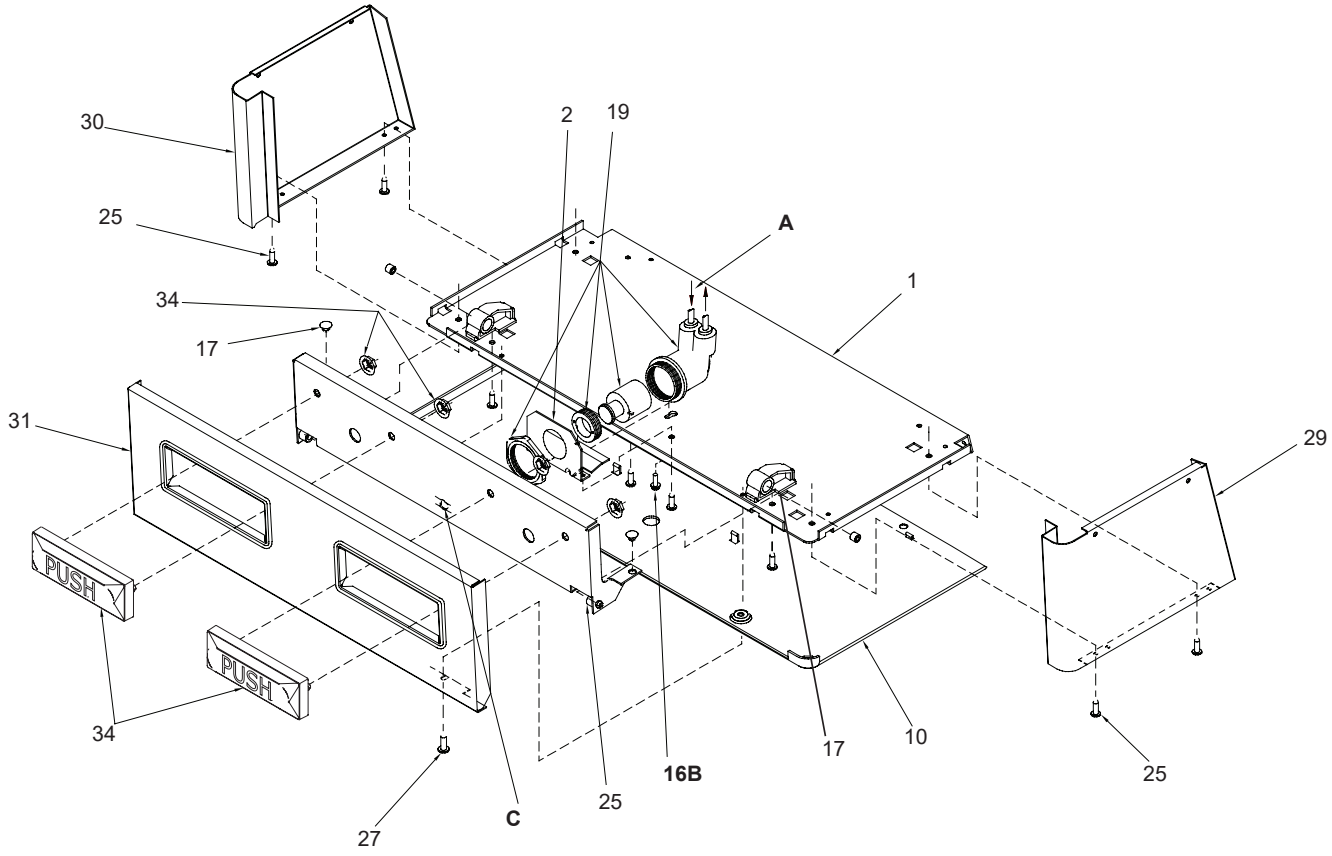


Figure 11

Water Valve Mechanism - ADJUSTMENT PROCEDURE:

- Turn adjustment screw "Counter-Clockwise" until water flow from bubbler starts.
- Turn adjustment screw "Clockwise" until water flow stops, THEN turn an additional 1/2 turn.

NOTE: Adjustments stated above are viewed from underneath unit (bottom side of dispenser panel).
NOTE: If water does not flow or flows sporadically after a refrigeration cycle, turn cold control CCW 1/4 turn.

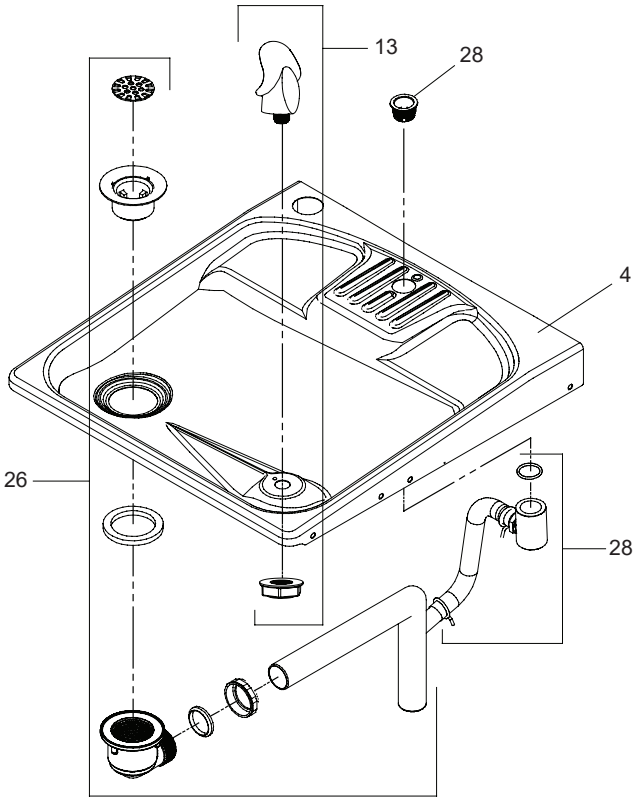


Figure 12

PARTS LIST		
ITEM NO.	PART NO.	DESCRIPTION
*6	1100000002	Compressor Serv. Pak (220v/50Hz)
21	0000000245	Kit - Fan Motor Assy/Blade/Motor/Shroud/Screws/Nut (220v-50Hz)
7	1100000004	Kit - Relay/Cvr/Overload (220v/50Hz)
35	35826C	Inlet Power
36	35827C	Internal Power Cord

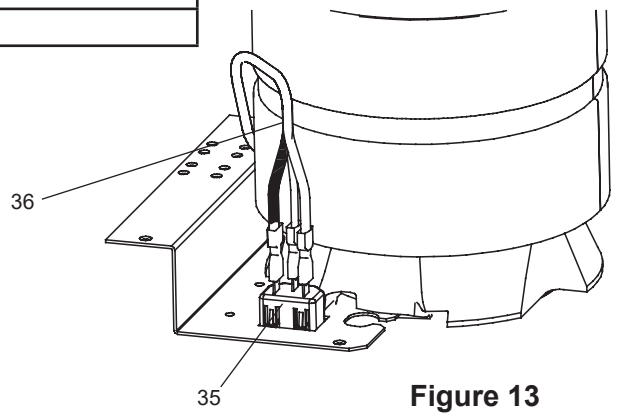


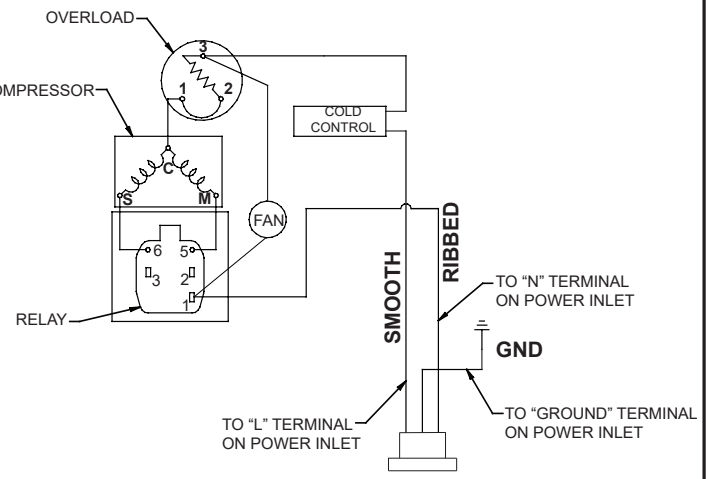
Figure 13

PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION
1	22897C	Panel - Bottom Dispenser
2	23003C	Bracket - Regulator Mounting
3	28551C	Hanger Bracket
4	0000001338	Basin - Stainless Steel
5	Not Shown	Power Cord
6	1100000002	Compressor Serv kit
7	1100000004	Kit - Electricals /OL/Relay/Cvr
8	40322C	Kit - Orifice w/Oring
9	1000002062	Kit - Tee - 1/4 x 1/4 x 3/8 (3 Pack)
10	55931C	Cover - Dispenser Bottom
11	55996C	Strainer (See “General Instructions”)
12	56092C	Tubing - Poly (Cut To Length)
13	96453C	Kit - Bubbler Replacement
14	66703C	Drier
15	1000001602	Kit-75583C Elbow 5/16” - 1/4” (3 Pack)
16	70935C	Screw - Shoulder x 1/2” Lg.
17	98537C	Kit - Blocks/Bumpers/Rivets
18	98724C	Kit - Evaporator Assembly
19	98732C	Kit - Regulator - Green Spring
20	98773c	Kit - Cold Control/Screws
21	0000000245	Kit - Fan Motor Assy/Blade/Motor/ Shroud/Screws/Nut
22	98776C	Kit - Condenser/Drier
23	98777C	Kit - Compr Mtg Hdwe/Grommets/ Clips/Studs
24	1100000003	Kit - Heat Exchanger/Drier
25	98789C	Kit - Pushbar Bracket/Screws
26	1000001889	Kit - Drain/Plate/Plug/Elbow/Nut
27	98899C	Kit - Hardware
28	1000001812	Kit - Bottle Filler Drain
29	28125C	Panel - Right Side (L)
	28124C	Panel - Right Side (SS)
30	28129C	Panel - Left Side (L)
	28128C	Panel - Left Side (SS)
31	28707C	Panel - Front Push (L)
	28706C	Panel - Front Push (SS)
32	28146C	Panel - Right Rear (L)
	28525C	Panel - Right Rear (SS)
33	28150C	Panel - Left Rear (L)
	28528C	Panel - Left Rear (SS)
34	0000000872	Kit-Pushbar/Nuts
35	0000000804	Panel - Front Lower/Nmplt (L)
	0000000834	Panel - Front Lower/Nmplt (SS)
-	See Filter Table	Water Filter Kit (When Provided)

BOTTLE FILLER REPLACEMENT PART LIST

ITEM NO.	PART NO.	DESCRIPTION
N.S.	98631C	Kit - Electrical Package 220V
N.S.	98544C	Kit - IR Sensor 220V
N.S.	1000004277	Kit - Solenoid Valve Replacement 220V
N.S.	98546C	Kit - Aerator Replacement
N.S.	98666C	Kit - Top Cover Replacement
N.S.	98549C	Kit - Hardware & Waterway Parts
N.S.	98669C	Kit - Filter Mounting Cover SS
N.S.	98670C	Kit - Retro Filter Mounting
N.S.	1000001813	Kit - Tower/Basin Gasket



220V/240V WIRING DIAGRAM

Figure 14

NS = NOT SHOWN

***REPLACE WITH SAME COMPRESSOR USED IN ORIGINAL ASSEMBLY.**

NOTE: All correspondence pertaining to any of the above water coolers or orders for repair parts MUST include Model No. and Serial No. of cooler, name and part number of replace-ment part.

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REPAIR SERVICE INFORMATION TOLL FREE NUMBER 1.800.260.6640
FOR PARTS, CONTACT YOUR LOCAL DISTRIBUTOR OR CALL 1.800.834.4816

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