

Installation / Care / Use Manual

Original Instructions

Model: VRC8WSS2KN Vandal Resistant Bottle Filling Station & Cooler



Description

Combination Vandal Resistant Refrigerated Drinking Fountain (Cooler) and Bottle Filling Station delivers chilled, clean potable drinking water. Top Bottle Filling section dispenses water for bottles at the press of the top button. 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, 50/60 Hz, (See Nameplate for Amperage), 1 phase.
- Ambient Air Temperature: 50-89.6 °C (10-32 °C).
- Water Pressure: 20-105 psig (0.14-0.69 MPa).
- Maximum Water Temperature: 90 °F (32 °C).
- Sound Pressure level (A-weighted): < 70 dBA
- Refrigerant: R290
- Ingress Protection: IP20
- For Indoor Commercial Use only.
- Water Inlet: 3/8" O.D. unplated copper tube.
- Waste Water Outlet: 1-1/4" O.D. tube

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.

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 must have 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.

Note: Danger! Electric shock hazard. Disconnect power before servicing unit.

Pictured is unit only without Bottle Filler

Uses R290 refrigerant

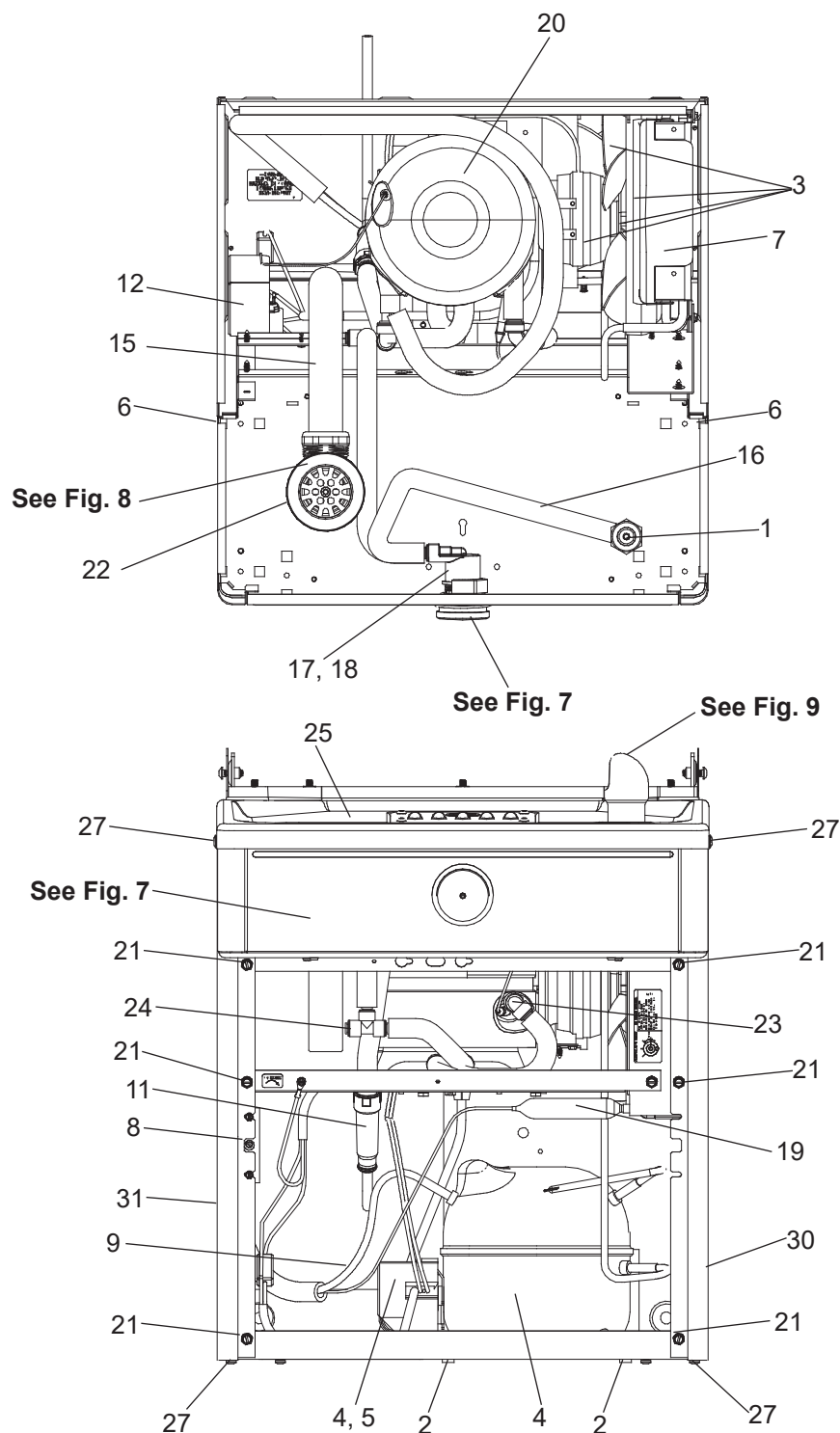


Fig. 1

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.

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 Rough-In.
- 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.

o Safety Glasses	o 1/2" (13mm) Socket & Ratchet Wrench
o Protective Gloves	o 5/32" (4mm) Allen Wrench
o Electric Drill	o Fasteners for wall type
o 3/4" (19mm) Wrench or Crescent Wrench	o Water Shut-off Valve with 3/8" (9.5mm) Compression outlet
o Utility Knife	o Waste Trap (non-metallic)
o Tape Measure	o Flat blade
o Pencil	o Flammable gas monitor
o Center Punch	

Installation: Cooler Mounting

1. Remove wall mounting plate(s) from Cooler. Install Wall Mounting Plate(s) as per Rough-In.
 - NOTE: Mounting plate (1 Piece) from the bottle filler package MUST be supported securely. Add fixture support carrier if wall will not provide adequate support.
2. Install water cooler onto wall bracket and secure to wall.

Installation: Water Line connection

1. Ensure Mains Water Supply has Water Shut-off Valve with 3/8" (10mm) compression outlet.
2. Connect the loose end of supplied 3/8" (9.5mm) unplated copper tube to Water Shut-off Valve. Other end of tube should be connected to inlet of strainer.

CAUTION

Do not solder tubes inserted into the strainer as it may result in damage the O-rings.

- NOTE: If 3/8" (9.5mm) copper tube must be cut for proper fit, remove all burrs from the outside of tube and re-flush before use.
3. Install waste trap. Remove the slip nut and gasket from the waste trap and install them on the cooler waste line making sure that the end of the waste line fits into the waste trap. Assemble the slip nut and gasket to the waste trap and tighten securely.
 4. It is recommended that the drain trap be insulated to avoid excessive condensation due to chilled water running through the waste trap.

Installation: Electrical connection

1. Rotate fan to insure proper clearance and free fan action.
2. Connect modular (C-13) end of International Power Cord Set (sold separately) into Power Inlet on Cooler and ensure plug-end reaches electrical outlet. Do not plug into electrical outlet!

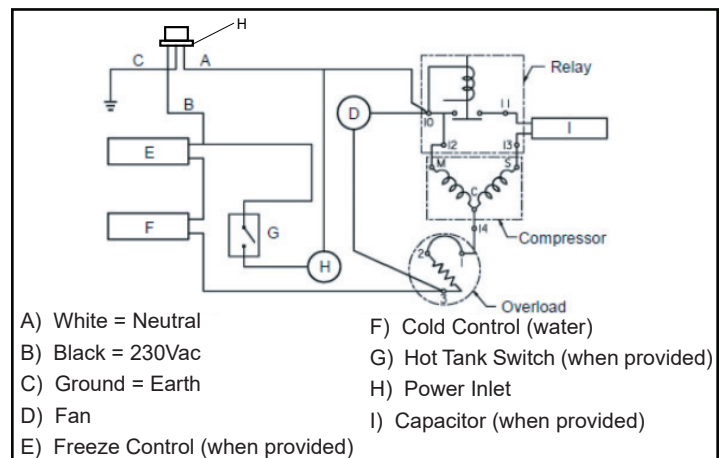


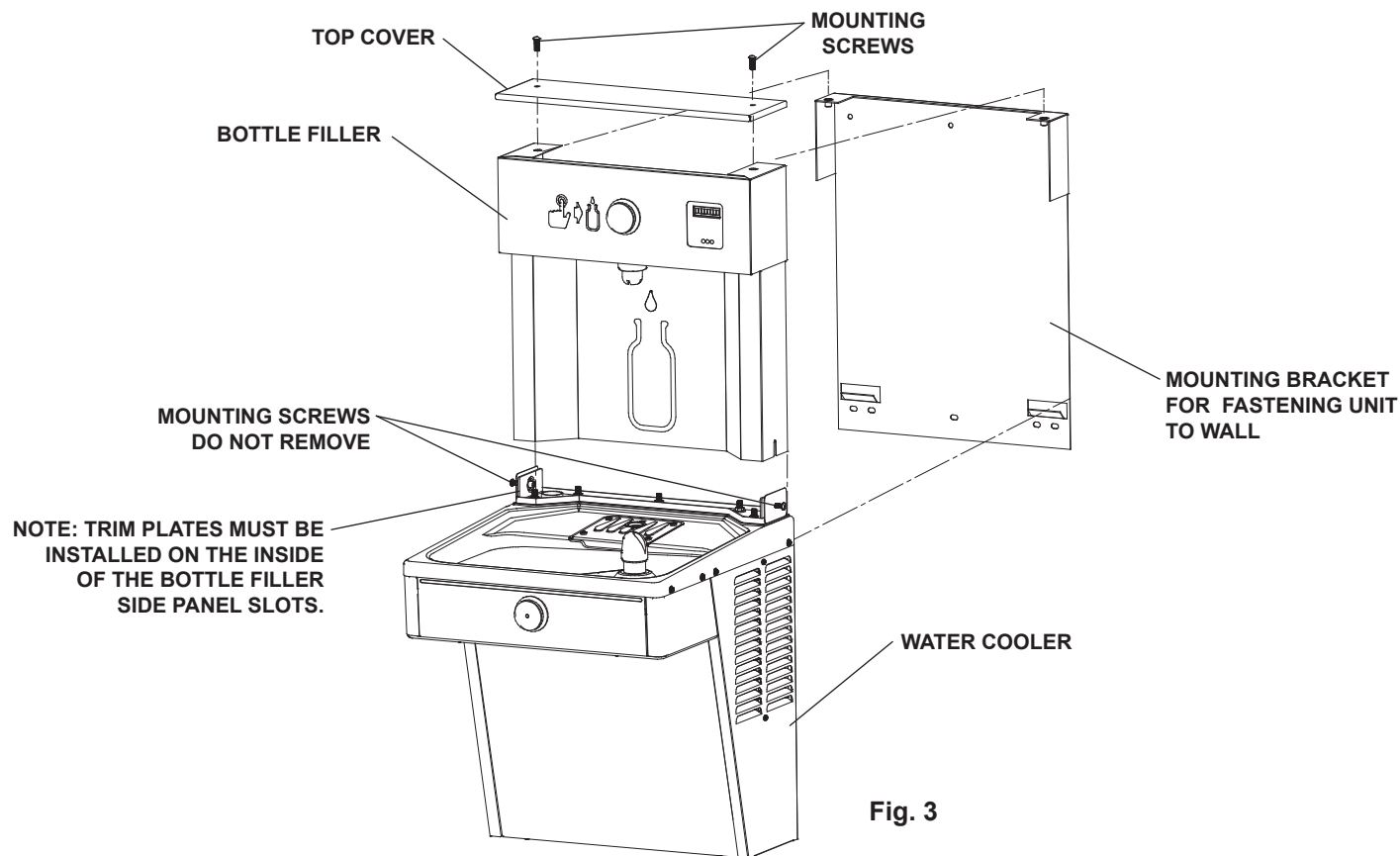
Fig. 2 230Vac, 50Hz Wiring Diagram



* ADA REQUIREMENT

E = ENSURE PROPER VENTILATION BY MAINTAINING 6" (152MM) MINIMUM CLEARANCE FROM CABINET LOUVERS TO WALL.
F = 7/16" (11MM) BOLT HOLES FOR FASTENING UNIT TO WALL.

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Installation: Bottle Filler Mounting

1. Remove VRC Bottle Filler from carton.
2. Remove 3/8" to 1/4" reducing union from end of waterline, (do not throw away it will be needed later).
3. Lay Bottle Filler on water cooler basin and cut insulation from tube even with bottom of unit, remove this insulation from the 3/8" tube, but do not discard.
 - NOTE: To prevent scratching the basin, place a towel or soft cloth over the entire basin when working above it.
4. Feed the modular (C-13) end of International Power Cord and 3/8" water line through hole in tower/basin gasket.
5. Feed the modular (C-13) end of International Power Cord (not supplied) through the basin hole and connect to Power Inlet on Bottle Filler. Do not plug into electrical outlet. With the power cord and waterline through the hole on top of water cooler place the Bottle Filler on to the mounting bracket above the basin.
 - NOTE: Make sure bottle filler is installed properly on the basin gasket.
6. 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 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. Once Bottle Filler is installed on basin mounting bracket, tighten the two screws (supplied) one on each side of the bottle filler.
7. With the power cord 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 (See Fig. 6). Make sure round boss in gasket fits in hole of basin.
8. 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.
9. Install Top Cover on Bottle Filler with two mounting screws (supplied).
 - CAUTION: Do not over tighten screws.
10. 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 with the 3/8" to 1/4" union and short piece of poly tube that was previously installed to the tee at the evaporator outlet.

OPERATION OF QUICK CONNECT FITTINGS

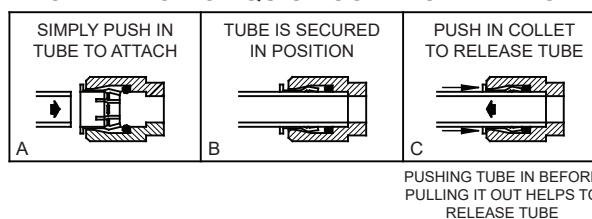


Fig. 4

Operation: Start-Up

1. Turn water supply on and inspect for leaks. Fix all leaks before continuing.
2. Connect plug-end of International Power Cord Sets from the Cooler and Bottle Filler into electrical outlets. Bottle Filler must have electrical power to dispense water. Be sure to reinstall fuse to the circuit or switch the circuit breaker back to the "ON" position.

WARNING: Exposed electrically energized components. Use extreme caution.

3. Purge air from all water lines by:
 - Depressing button or front push bar of cooler/fountain.
 - Placing cup, hand, or any opaque object in front of Bottle Filler sensor area to dispense water.
 - NOTE: Steady stream of water assures all air is removed.
4. The LCD Bottle Counter on the Bottle Filler should illuminate.
5. Recheck all water and drain connections with water flowing through system. Fix all leaks before continuing.
6. Once unit tests out, install Lower Panel on Water Cooler. Units are now ready for use.

Operation: Bottle Filler Control Board Set-Up

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 BF11 or 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 located at the top right side of the unit on the control board.

SETTING RANGE OF THE IR SENSOR WHERE APPLICABLE

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.

RESETTING 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
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 "RST BCNT" push program button once the display will show current value e.g. "0033183".
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:
6. 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).
7. 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).

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:
 - o Safety Glasses
 - o Protective gloves
 - o Hex drives.

Service: Adjustments

1. **Temperature Control:** Factory set for 50°F ± 5° (10°C ± 5°) water under normal conditions. To adjust water temperature, turn screw clockwise for colder, counter clockwise for warmer.
2. **Water Stream Height:** Stream height is factory set at 35 psig (0.24 MPa). If supply pressure varies greatly from this, adjust screw using the access hole in the pushbutton (insert flathead screwdriver). Clockwise adjustment will raise stream and counter-clockwise adjustment will lower stream height. For best adjustment, stream should hit basin approximately 6.5" (165mm) from bubbler.
NOTE: If water does not flow or flows sporadically after a refrigeration cycle, turn cold control counterclockwise 1/4 turn.
3. **Water coming out of Bubbler continuously:** Check the solenoid valve and cooler fountain push button. For cooler with push button, see Cooler Manual-Water Valve Mechanism-Adjustment Procedure.

Service: Inspection/Cleaning

- Inspect Bottle Filler and 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. **Bubbler:** Mineral deposits on the orifice can cause water flow to spurt or not regulate. Mineral deposits may be removed from the orifice with a small round file not over 1/8" (3 mm) diameter or small diameter wire.
• CAUTION: DO NOT file or cut orifice material. Care must be taken not to damage the orifice(s)
Make sure not to damage the bubbler screen while cleaning.
 3. **Condenser Fan Motor:** Confirm condenser fan turns freely. If the condenser fan does not spin freely, have an authorized service personnel replace.
 4. **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.
 5. **Water Flow:** Confirm proper water flow. If water flow is slow, inspect filter or inline strainer for restriction. Disassemble inline strainer and clean if required.
 6. **Lubrication:** Motors are lifetime lubricated.
 7. **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).

Service: Inspection/Replacement

- Inspect Bottle Filler and 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. **Lower Front Panel:** To access the refrigeration system and plumbing connections, remove four (4) screws from bottom of cooler to remove the lower front panel.
 2. **Bottle Filler Removal:** Loosen but DO NOT remove the two (2) Mounting Screws from the sides of the Bottle Filler. Remove the two (2) Pinned Torx Head Screws from the Top Cover & remove the Top Cover. The Bottle Filler may then be lifted up and off the Water Cooler (The water line and power cord will still be connected from the Water Cooler to the Bottle Filler).
 3. **Bubbler:** To remove the bubbler, first disconnect the electrical supply. The underside of the bubbler can be reached through the underside of the front section. Remove the cover and internal panel by removing the retaining screws. To remove the bubbler, remove the tubing from the quick connect fitting and loosen the bubbler nipple by turning counter-clockwise. Do Not Overtighten while ensuring the locator in the basin is in the detent of the bubbler. After servicing, replace internal panel and cover and secure with retaining screws. Then replace the lower front panel and secure with four (4) screws.

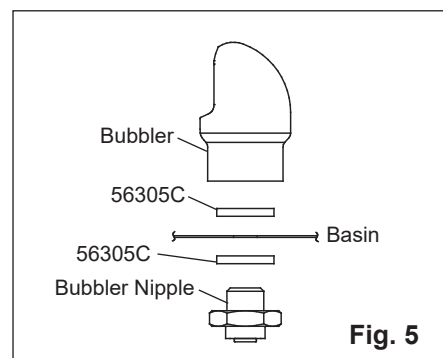
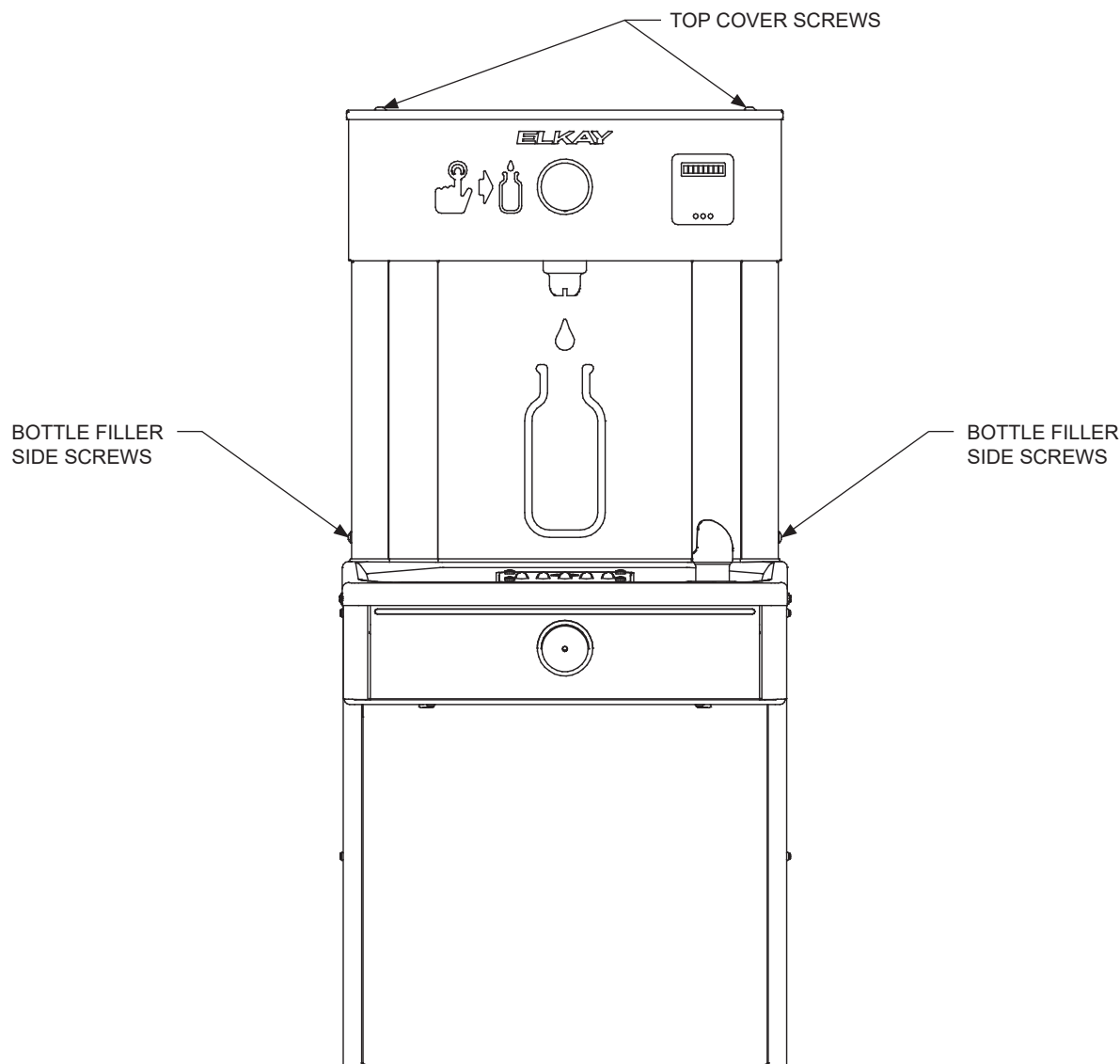


Fig. 5

REMOVAL OF BOTTLE FILLER FOR SERVICING

- 1) **Turn off the water supply to the Water Cooler.** Unplug and/or turn off Circuit Breaker to Cooler and Bottle Filler.
NOTE: the Lower Front Panel of the cooler(s) may need to be removed. To prevent scratching the basin place a towel or soft cloth over the entire basin when working above it.
- 2) **Loosen but DO NOT remove the two (2) Pinned Torx Head Screws** from the sides of the Bottle Filler. Remove the two (2) Pinned Torx Head Screws from the Top Cover & remove the Top Cover. The Bottle Filler may then be lifted up and off the Water Cooler (The waterline will still be connected from the Water Cooler to the Bottle Filler.)

**Fig. 6****BOTTLE FILLER REPLACEMENT PART KITS**

PART NO.	DESCRIPTION
98546C	Kit - Aerator Replacement
98549C	Kit - Hardware & Waterway Parts
98552C	Kit - Retro Filter Mounting
98631C	Kit - Electrical Package 220V
1000004771	Kit - Solenoid Valve Replacement 220V
98668C	Kit - Filter Mounting Cover
98999C	Kit - Drain Pad
99000C	Kit - Button Assembly
1000001907	Kit - Top Cover Replacement
99002C	Kit - Gasket VR BF Tower/Basin
99003C	Kit - Reset Switch
99004C	Kit - Micro Switch

PUSH BUTTON MECHANISM

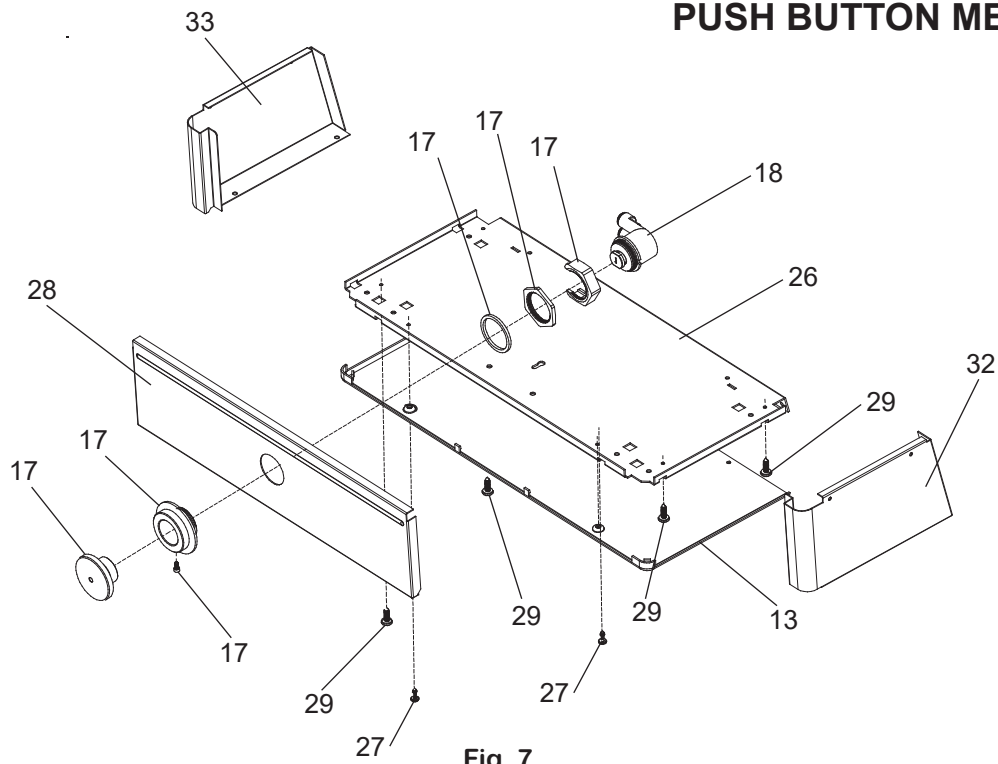


Fig. 7

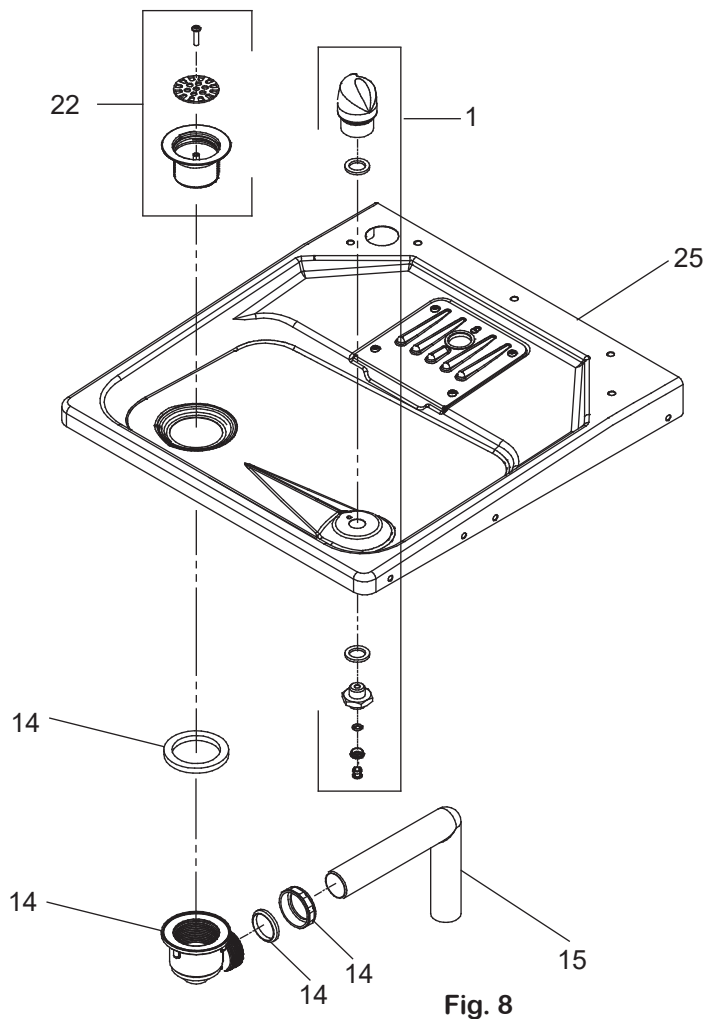


Fig. 8

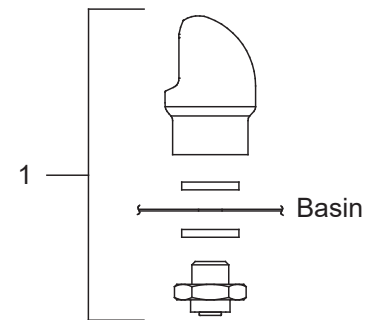


Fig. 9

VANDAL RESISTANT BUBBLER DETAIL

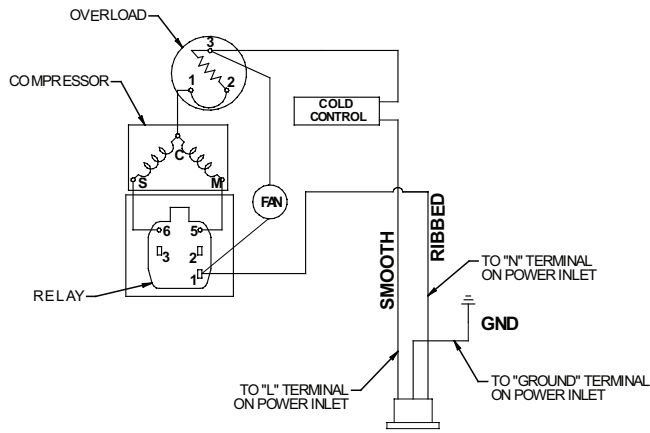


Fig. 10
220V/240V WIRING DIAGRAM

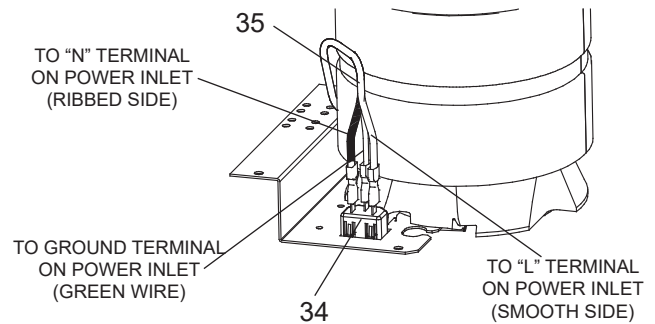


Fig. 11
220V/240V POWER INLET DETAIL

ITEM NO.	PART NO.	DESCRIPTION
1	97446C	Bubbler Assy - VR
2	98777C	Kit - Compressor Mtg/Clips/Studs/Grommets
3	000000245	Kit - Fan Motor/Blade/Shroud/Nut/Screws
4	1100000002	Compressor Serv. Pak
5	1000000004	Kit - Relay/Overload/Cover
6	75524C	Clip (Front & Rear Panels)
7	98776C	Kit - Condenser/Drier
8	98773C	Kit - Cold Control/Screws
9	1100000003	Kit - Heat Exchanger/Drier
10	Not shown	Power Cord
11	55996C	Strainer (See "General Instructions")
12	27124C	Cover - Cold Control
13	55931C	Cover - Dispenser Bottom
14	98684C	Kit - Drain Elbow/Gasket/Nut/Washer
15	45930C	Drain Tube Assy.
16	56092C	Tubing - Poly (Cut To length)
17	1000001906	Kit - Push Button/Sleeve/Spacer/Nuts/Screw
18	98530C	Kit - Regulator/Holder/Nut
19	66703C	Drier
20	98724C	Kit - Evaporator Assembly
21	70002C	Screw - #10 x 1/2" Lg. HHSM
22	600985551640	Drain Plug Assy-Vandal Proof
23	1000001602	Kit - Elbow 5/16" x 1/4" (3 Pack)
24	1000002062	Kit - Tee 1/4 x 1/4 x 3/8 (3 Pack)
25	29014C	Basin - Stainless Steel (VR)
26	22897C	Panel - Bottom Dispenser
27	0000001190	Kit - #10 Pinned Torx Screws/T-25 Bit
28	28516C	Panel - Dispenser Front
29	70864C	Screw - #8 x .62 Torx/Slot
30	28525C	Panel - RH Rear
31	28528C	Panel - LH Rear
32	28519C	Panel - RH Dispenser Side
33	28522C	Panel - LH Dispenser Side
NS	22955C	Panel - Front Lower
NS	29032C	Mounting Bracket

NS = NOT SHOWN

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 replacement part.

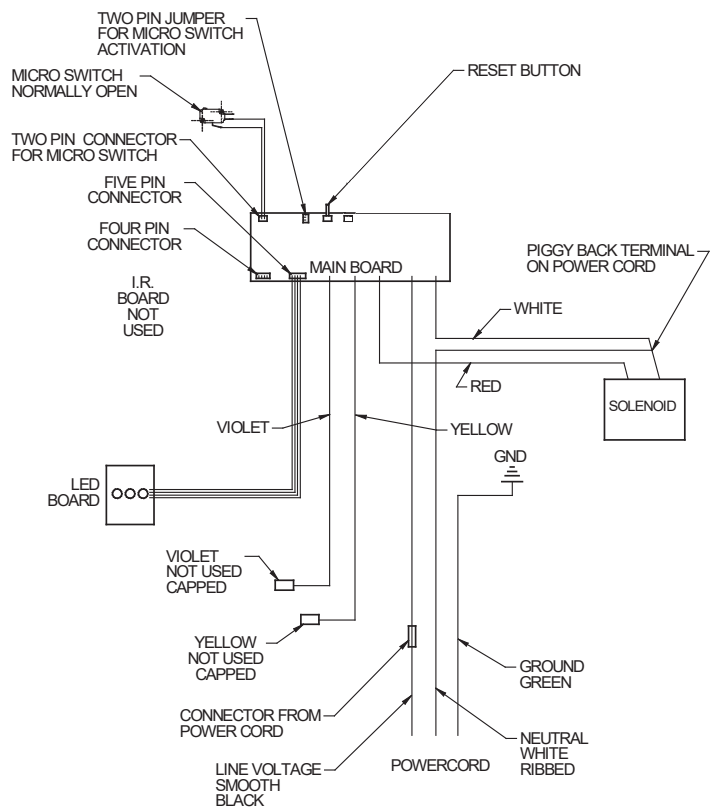


Fig. 12
WIRING DIAGRAM 120 VOLT & 220 VOLT SINGLE & BI-LEVEL MICRO SWITCH ACTIVATION

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

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