Ramvac

DRY VACUUM

USER MANUAL

MODEL: BADGER LF2

BADGER™ LF



DENTALEZ

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Ramvac

PRODUCT OVERVIEW

This manual contains site preparation, installation, operation, care and user service information for the Ramvac® Badger LF dental vacuum system. To view the latest manual, go to *DENTALEZ.COM* to download a digital (PDF) copy.

The main purpose of the Badger LF is to provide a positive displacement, oil-less dry vacuum system intended for use in a dental facility and to be used by trained professional dental care personnel only. Badger LF vacuums are designed to provide trouble-free service when installed, operated and cared for according to the procedures set forth in this manual. They are NFPA 99C Level 3 dental vacuums.

Vacuum is supplied to the system by a durable oil-less rotary vane pump. A space-saving integrated separation tank keeps liquid and foam out of the pump. The E2 control provides precise electrical control over run-time and shutdown operations while vacuum is maintained at a uniform level by the Ramvac vacuum level control valve.

To ensure proper installation, carefully read all the instructions contained in this manual prior to installing, operating and servicing. For safety, pay close attention to all warnings, cautions, notices and notes.

Before starting installation procedures, review the illustration to become familiar with the components of the vacuum *(FIGURE 1)*.

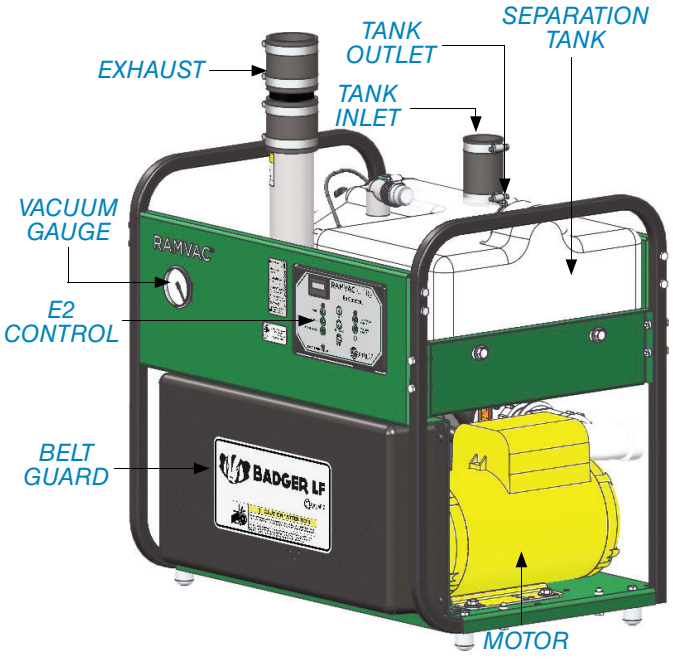
After the vacuum is installed, review the features, operation procedures and care guidelines with the doctor's staff.

LEAVE THIS MANUAL IN THE DOCTOR'S OFFICE.

NOTICE

- Installation by an authorized Ramvac dealer service technician is recommended.
- For any questions about an order, please contact a Ramvac customer service representative at 866-DTE-INFO.
- The vacuum system must be switched by a low-voltage switch. It cannot be switched with high voltage.

BADGER LF FRONT/SIDE VIEW



BADGER LF REAR VIEW

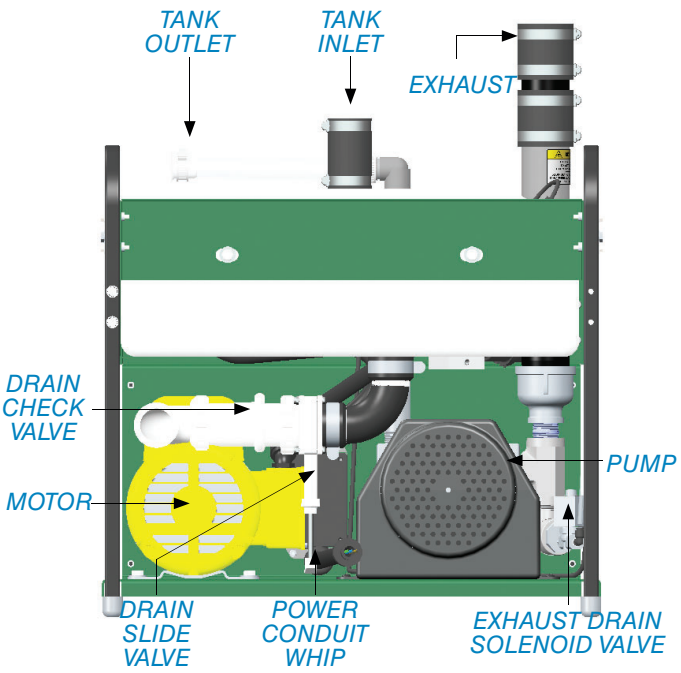


FIGURE 1. MAIN COMPONENTS OF THE BADGER LF DRY VACUUM

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PRODUCT FEATURES

Flexible and compact, the Badger LF by Ramvac is an efficient, powerful, lubrication-free dry vacuum system that is an alternative to traditional vacuum units.

The Badger LF Lube Free dry vacuum system brings unrivaled power to your fingertips in the operatory, while reassuring you with confidence and efficiency in the back room. You can depend on Badger LF all day, every day, for worry-free performance. Whether you are outfitting a new utility room or replacing an existing vacuum system, Badger LF will provide the power and reliability you need.

STANDARD FEATURES

- Integrated pump, tank and control unit in one compact footprint.
- Compact lube-free rotary vane pump with integrated five-gallon polyethylene tank.
- Open frame design means quick maintenance and less down time.
- Connects to most pre-existing plumbing, making an easy switch from wet to dry vacuum system.
- Saves 200,000 gallons of water annually.
- Two-year vacuum system warranty. Five-year no fail, no wear-out pump warranty (see *LIMITED WARRANTY* section of this manual).
- Suited for up to four users.



Ramvac
BADGER™ LF

Ramvac

SPECIFICATIONS

	BADGER LF2
Max Users	4
Phase	1
Horsepower *(kW)*	1.5 (1.2)
Voltage Rating *(Min/Max)*	230 (208/230)
Frequency *(Hz)*	60
Breaker Rating Size *(Amps)*	15
Full Load *(Amps)*	6.2
Switching *(Low-voltage VDC)*	24
Vacuum Level *(Preset kPa/Hg)*	23.7 (7")
Vacuum Level *(Max kPa/Hg)*	50.8 (15")
Fusetron Size *(Recommended)*	FRN 8
THHN Wire Size *(AWG)*	12
Gauge Accuracy	ASME/ANSI B40.1 Grade B (+/-3/2/3%)
HR (Heat Released to Room) *(BTU)*	900
Sound Levels *(dBA)*	74
Weight (Unit) *(lbs)*	175
Weight (Shipping) *(lbs)*	195
Dimensions W × D × H *(in)*	24.7 × 18 × 23.25
Floor to Drain Center Line *(in)*	7.75
Exhaust Vent *(in)*	2
Tank Capacity *(Gallons/Liters)*	5 (18.9)

RECOMMENDED ENVIRONMENTAL CONDITIONS

TRANSPORTATION AND STORAGE

- Temperature range: 0°F to 150°F (-17.8°C to 65.6°C)
- Relative humidity range: 0% to 95%, no condensing moisture
- Atmospheric pressure range: 50 kPa to 105 kPa (Equates to 18,000-1,000 ft elevation range)

OPERATION

- Temperature range: 40°F to 104°F (4.4°C to 40°C)
- Relative humidity range: 0% to 95%; no condensing moisture
- Atmospheric pressure range: 70 kPa to 105 kPa (Sea level to 9,000 ft (2,743 m))

CLASSIFICATIONS

ETL CLASSIFIED
c ETL us
Intertek
4007136

Conforms to:
ANSI/AAMI STD ES60601
Certified to:
CAN/CSA STD C22.2 NO. 60601-1
Complies with NFPA 99C level 3 piped gas and vacuum requirements.

Manufactured in a FDA registered ISO 13485:2016 certified facility.

Ramvac vacuum units meet the most current and highest safety standards.

- Type of Protection Against Electric Shock: Class 1 Equipment.
- Degree of Protection Against Ingress of Water: IPXO.
- Flammable Gases: Equipment not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide.
- Not intended for use in an oxygen rich environment.
- Mode of Operation: Continuous

EXPLANATION OF SYMBOLS & SIGNS

 = Caution

 = Warning

 = Biohazard

 = Warning - Dangerous Voltage

 = Hot Surface

 = General Mandatory Action

 = Consult Instructions for Use

 = Alternating Current

 = Direct Current

 = Protective Earth (Ground)

 = Serial Number

 = Manufacture Date

 = Manufacturer

 = Hazardous Moving Parts

 = Box Must Remain Upright

 = Do Not Place Box on Unlevel Surface

 = Do Not Stack Box

 = Box Contents Safe Temperature Range

 = Box Contents Safe Humidity Range

SAFETY PRECAUTIONS

To ensure that the safety potential of this equipment is achieved, make sure equipment is installed according to written instructions.

WARNING

Do not modify this equipment without permission from Ramvac. Unauthorized modification will void the warranty and could result in serious injury. If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of equipment.

- Exhaust from dental vacuum systems can be hazardous. Make sure the exhaust pipe is terminated outside of your building according to Ramvac's written instructions.
- Nitrous oxide and oxygen can be safetly scavenged in the small concentrations typically encountered in dental analgesia. The additional air drawn into a properly installed and operated vacuum unit will dilute these agents.
- Never use the vacuum to remove pure nitrous oxide, oxygen or other oxidizing agents directly from the storage vessle or supply hoses. Large concentrations may cause a fire in the vacuum unit and may cause an exhaust hazard.
- Never use this equipment in an OXYGEN RICH ENVIRONMENT. Large concentrations may cause a fire in the vacuum unit and may cause an exhaust hazard.

CAUTION

- Never use the vacuum for housekeeping functions.
- Never use the vacuum to collect lab dust.

SAFETY PRECAUTIONS (CONTINUED)

Electrical shock could occur as a result of improper grounding. This product must be grounded according to NEC regulations and local codes.

- The vacuum unit should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the vacuum should be observed to verify normal operation in the configuration in which it will be used.
- Never use the vacuum to scavenge flammable anesthetic gases. Even small concentrations may cause a fire in the vacuum unit.
- Property damage and/or personal injury may result if directions are not followed or OEM parts are not used.
- Always turn off vacuum and remove power from unit when servicing. (Turn off power at disconnect or service breaker.)
- Danger of fire or explosion when using flammable substances.
- Never leave children unattended when vacuum is in use.

CAUTION

- The vacuum has several guards designed to protect against accidental contact with dangerous components. Do not remove these guards until power has been disconnected/turned off from the equipment. If service is required with the guard removed and the power on, it should only be performed by a qualified service technician. Always replace any guards that have been removed for service or that may have been damaged.
- During installation, always ensure all electrical, plumbing or other utilities are properly located to avoid possible tripping or falling hazards. Always follow all local, state and national building codes, as well as any applicable workplace safety regulations.
- Use of a plug for electrical service is not recommended. Incorrect connections will cause a drop in line voltage and/or loss of power. Overheating could result.
- The EMISSIONS characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.

NOTICE

- Medical electrical equipment needs special precautions regarding electromagnetic (EMC) compatibility and needs to be installed according to EMC information. (See *EMC INFORMATION* provided in this manual.)
- The use of accessories, transducers, and cables other than those specified, with the exception of transducers and cables sold by the manufacturer of this device as replacement parts for internal components, may result in increased emissions or decreased immunity of the vacuum.
- Portable and mobile radio frequency (RF) communications equipment can affect medical electrical equipment.
- There may be an instance, in low-humidity environments, that the user of the dental compressed air system may cause the vacuum to stop as a result of electrostatic discharge (ESD) energy. To remedy this issue, cycle the ON/OFF switch on the bottom of the control box.

PACKAGING

⚠ CAUTION

This unit is heavy. Never attempt to lift or handle without assistance.

NOTICE

It is recommended to leave the unit attached to the shipping pallet during transport until final destination.

TOOLS NEEDED

- 7/16" Wrench

PARTS INCLUDED

- Installation Kit
- Facility Plumbing Adapter Kit
- Drain Plumbing Adapter Kit
- Badger LF Installation Packet
- Badger LF Doctor's Packet
- SlugBuster Starter Pack
- SlugBuster Powder (2 cans)
- SlugBuster Mixing Jug (2 gallon)
- Badger LF Muffler Kit

1. Carefully remove the shipping carton from the pallet containing the Badger LF.
2. Visually inspect the entire unit for damage. If shipping damage is found, immediately contact the freight carrier and supplier.
3. Using a 7/16" wrench, unbolt both side of Badger LF from the pallet *(FIGURE 2)*.
4. To lift and handle the unit, grasp the frame rails.

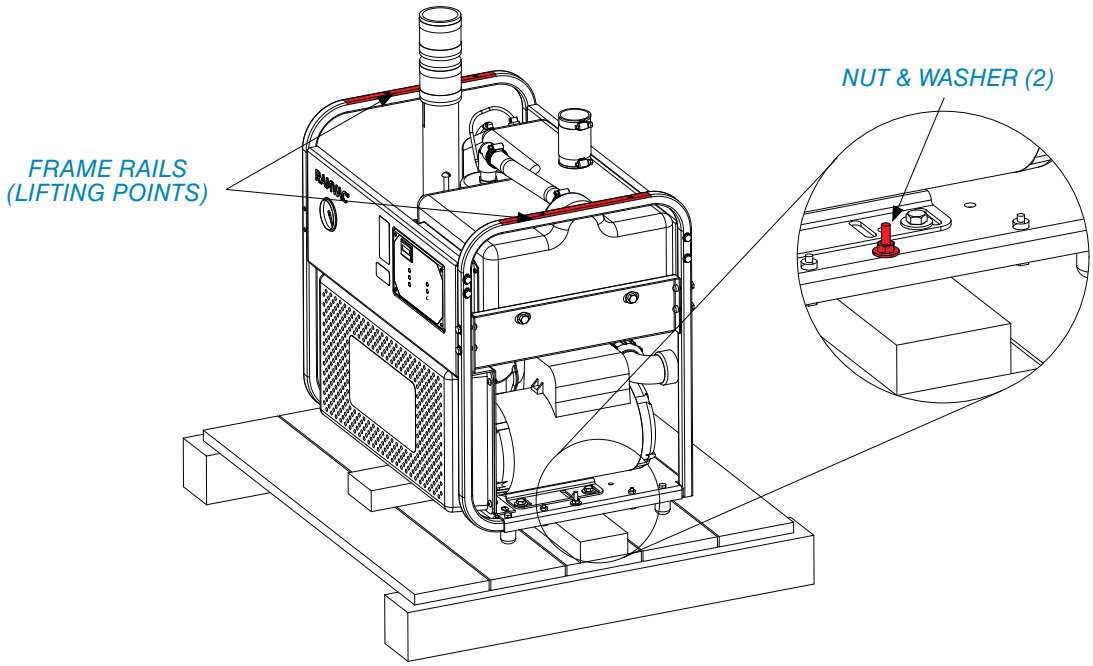


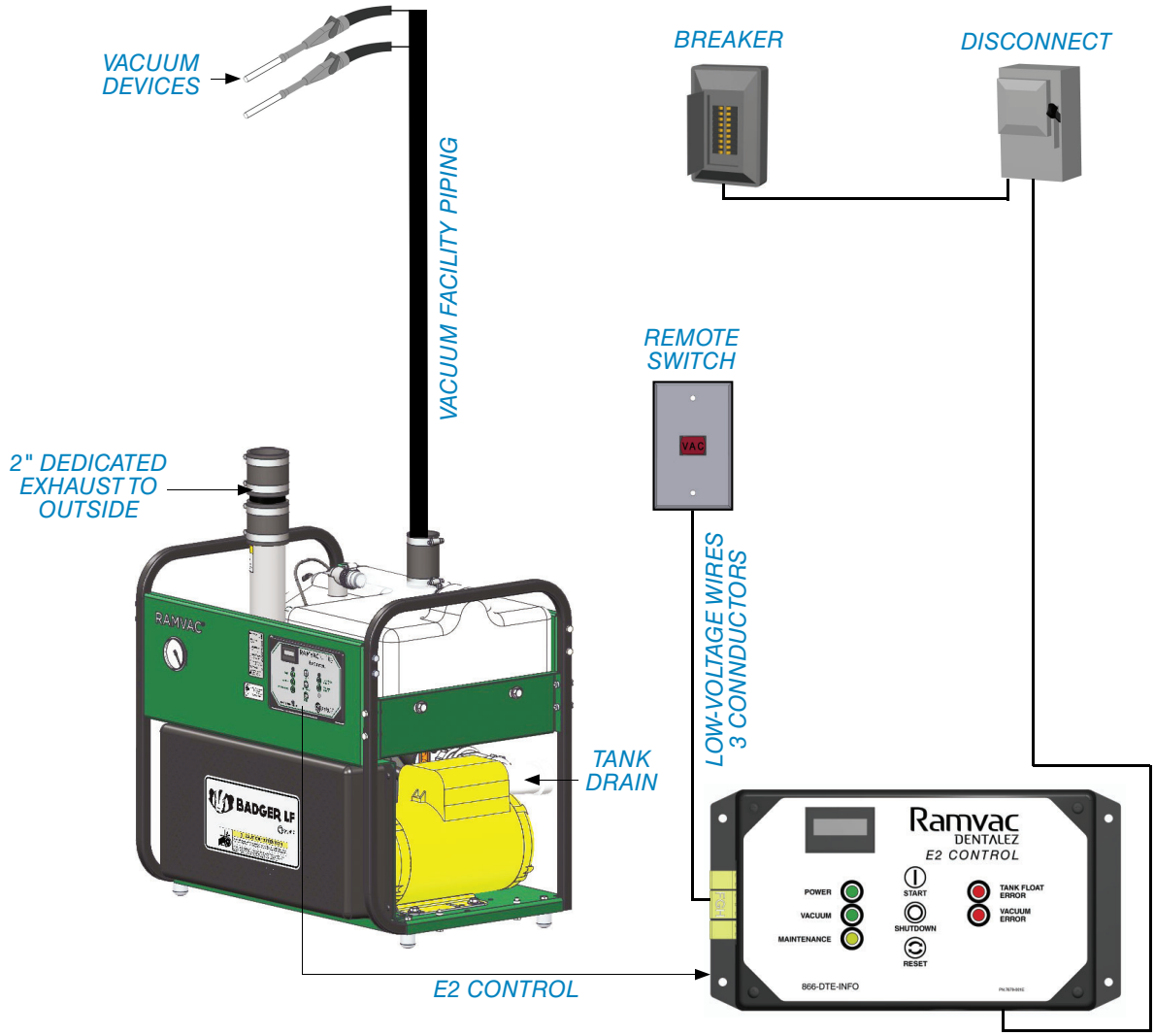
FIGURE 2. REMOVE NUT AND WASHER FROM BOTH SIDES OF PALLET

SYSTEM SCHEMATIC

NOTICE

It is recommended that this equipment only be installed by licensed electrical and plumbing contractors.

1. Prepare Site (see *SECTION II - PREINSTALLATION - SITE REQUIREMENTS*).
2. Install Plumbing (see *SECTION III - INSTALLATION - PLUMBING*).
3. Install Exhaust (see *SECTION III - INSTALLATION - EXHAUST PLUMBING - FACILITY EXHAUST LINES*).
4. Connect Remote Switching (see *SECTION III - INSTALLATION - ELECTRICAL - REMOTE SWITCHING*).
5. Connect Electrical Power (see *SECTION III - INSTALLATION - ELECTRICAL - SINGLE-PHASE CONNECTIONS*).
6. Connect Muffler (see *SECTION III - INSTALLATION - MUFFLER).*



SITE REQUIREMENTS

Ambient Conditions: This utility room equipment is designed to operate in the temperature range designated as follows: 32°F to 104°F (0°C to 40°C). Operating relative humidity range is 0% to 95%, with no condensing moisture. The utility room environment may require additional ventilation and HVAC accomodations in order to maintain an acceptable environment. The operating temperature listed is to be maintained under worst case conditions taking into account seasonal temperature changes.

Protect the vacuum unit from water; controls and motors are NOT waterproof.

Before the vacuum can be properly installed, the following utilities must be supplied.

ELECTRICAL

- A licensed electrician should always complete the electrical portion of the installation process. This device requires proper electrical grounding for safe operation.
- Follow NEC, NFPA 99C, and all local codes.
- Qualified personnel must install a dedicated electrical circuit of sufficient capacity. See *SECTION I - INTRODUCTION - SPECIFICATIONS* in this manual for additional electrical information.
- Any means provided to isolate this device from the supply mains shall isolate all poles simultaneously.
- The disconnection means and over-current protection are to be provided by the installer (qualified electrician) in accordance with applicable local and national electric codes. This device should always be attached to a dedicated circuit with appropriate wiring and circuit protection. If this device is being installed as a replacement, always have a licensed electrician inspect the existing facility electrical and complete the electrical portion of the device installation.

WARNING

To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

CAUTION

During the performance of any service procedures that may involve the disconnection of a ground wire, take extra precautions to verify the ground wire has been properly re-connected. Never leave a ground wire disconnected, since this can create a significant safety issue.

NOTICE

This vacuum has been designed to operate within the following voltage ranges: 115V systems, 103 to 126V AC; 230V systems, 208 to 253V AC. Failure to provide sufficient voltage to this device could result in damage to electrical components and reduced service life.

PLUMBING

- A licensed plumber should always complete the plumbing portion of the installation process. Follow all local and national plumbing codes.
- This device should always be installed with the appropriate plumbing. If this device is being installed as a replacement, always have a licensed plumber inspect the existing facility plumbing and complete the plumbing portion of the device installation.

PLUMBING

NOTICE

Follow current NFPA 99c Edition, Ramvac instructions, and all local codes.

FACILITY VACUUM LINES FROM OPERATORIES

- 1½" (or larger) schedule 40 PVC with DWV fittings or equivalent.
- Slope: Minimum ¼" per 10 ft (2 mm per 1 m).
- Can be adapted to fit facility plumbing from ¾" to 2".
- If an in-line low spot is unavoidable, place it in a known location and incorporate clean-out.
- For overhead piping, contact Ramvac Technical Support.
- For nitrous oxide scavenging, contact Ramvac Technical Support.

AMALGAM SEPARATOR TO TANK VACUUM LINE

- 1½" schedule 40 PVC with DMW fittings or equivalent.
- Use new, clean pipe to connect tank to vacuum power unit and amalgam separator to vacuum line. DO NOT reuse old or existing pipe.

TANK DRAIN LINE

Waste pipe, slide valve and drain check valve:

- 1½" schedule 40 PVC with DWV fittings.
- Slope: Minimum 1/4" per 10 feet (2 mm per 1 m).
- Use only Ramvac supplied 1½" drain check valve.
- Drain into building sewer system.

Trap and drain branch:

- Trap and drain branch line two sizes larger than waste pipe.
- Trap seal minimum 4" deep.

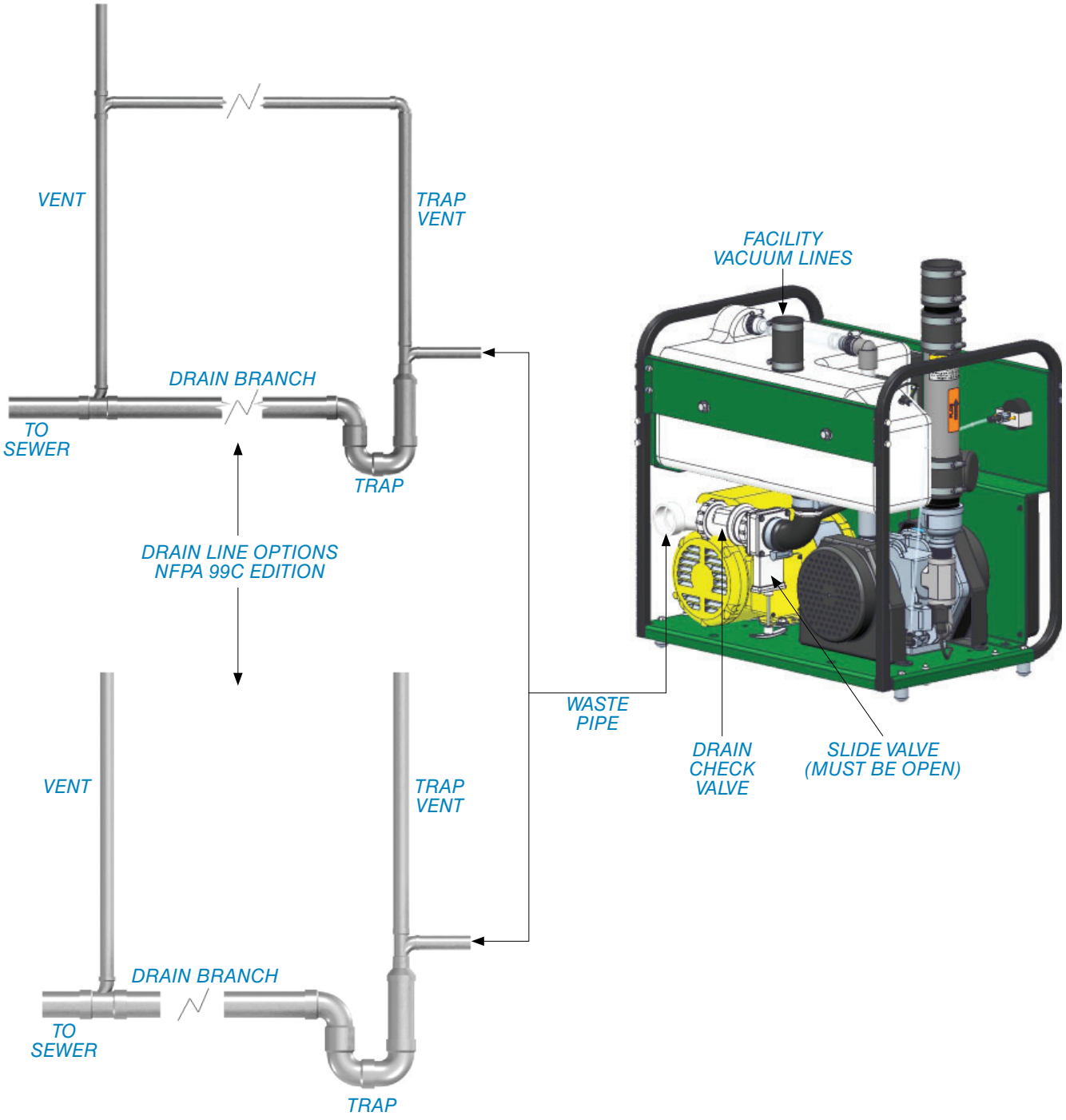
Vents:

- Trap vent size no less than half the trap and drain branch size.
- Vents no smaller than drain check valve.
- Vents must extend a minimum of 6" above tank top before turning horizontally.

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PLUMBING (CONTINUED)

VACUUM & DRAIN PLUMBING

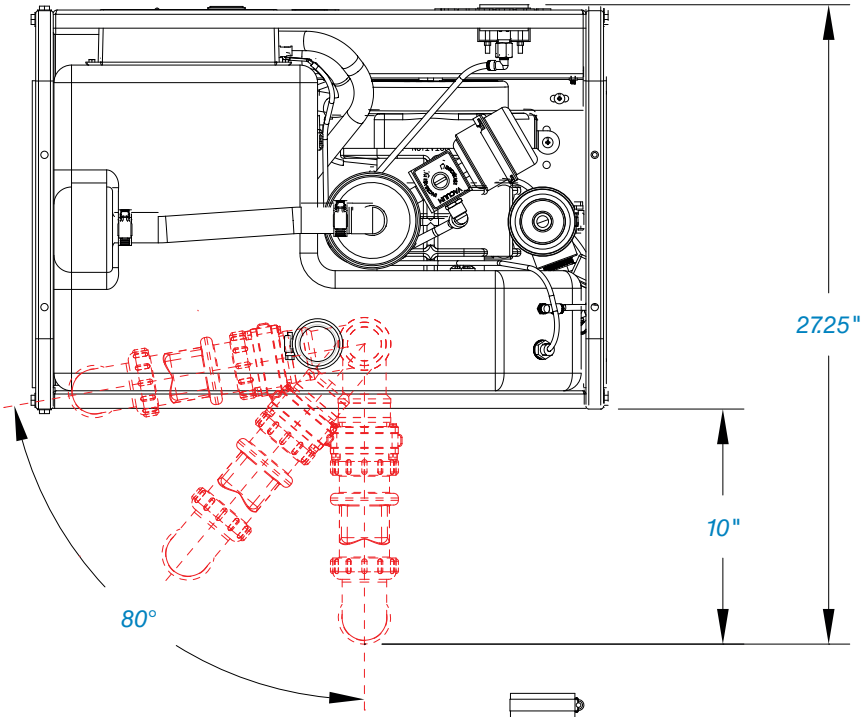


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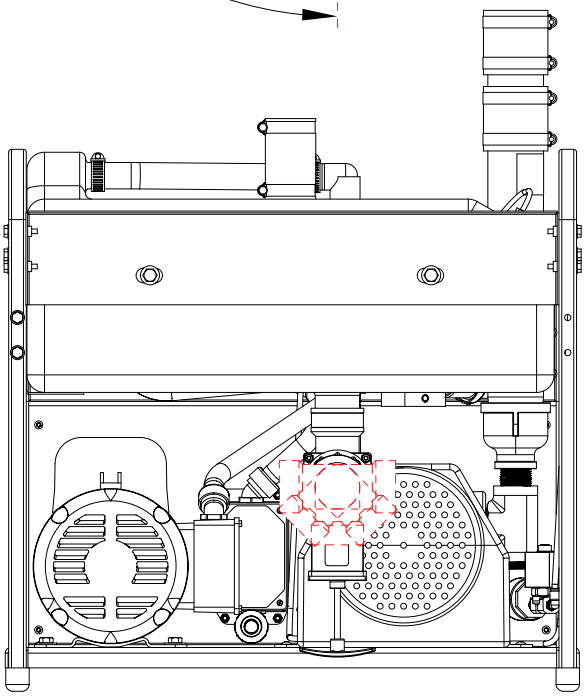
PLUMBING (CONTINUED)

DRAIN VALVE PLUMBING OPTIONS

TOP VIEW



FRONT VIEW

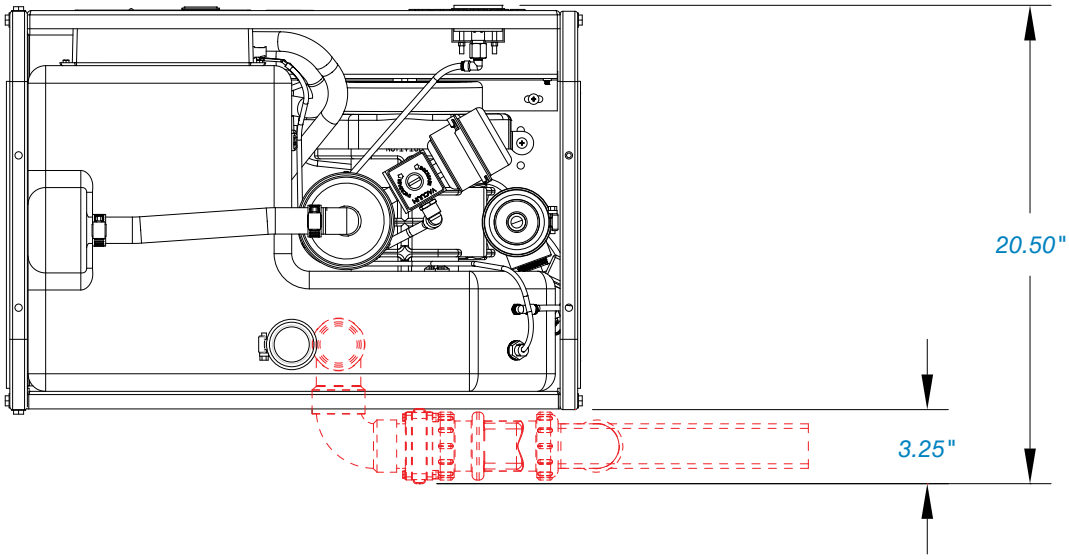


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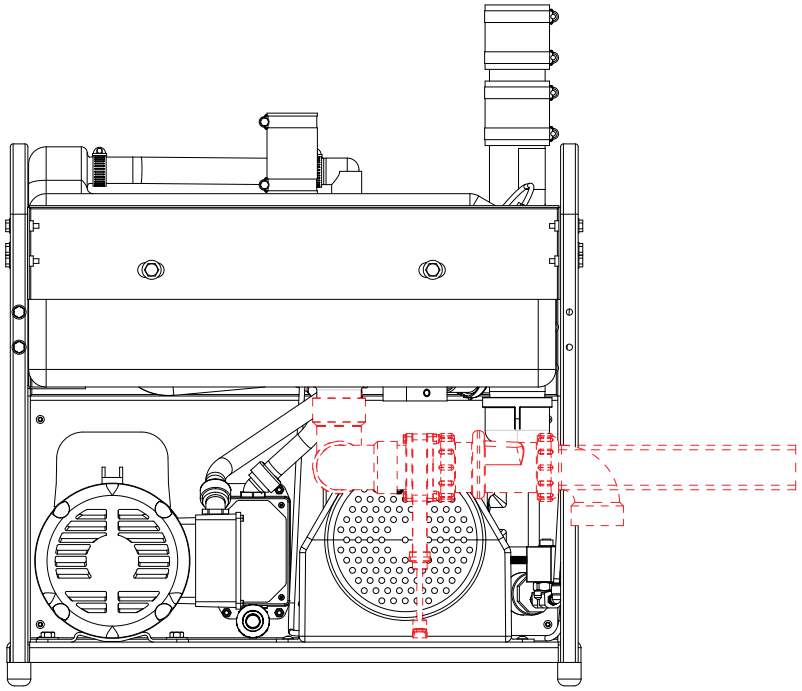
PLUMBING (CONTINUED)

DRAIN VALVE PLUMBING OPTIONS

TOP VIEW



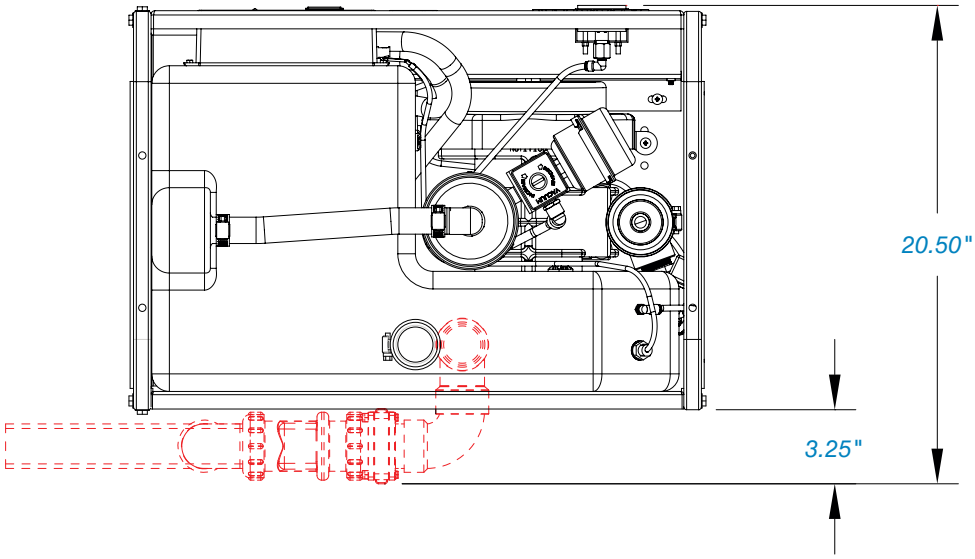
FRONT VIEW



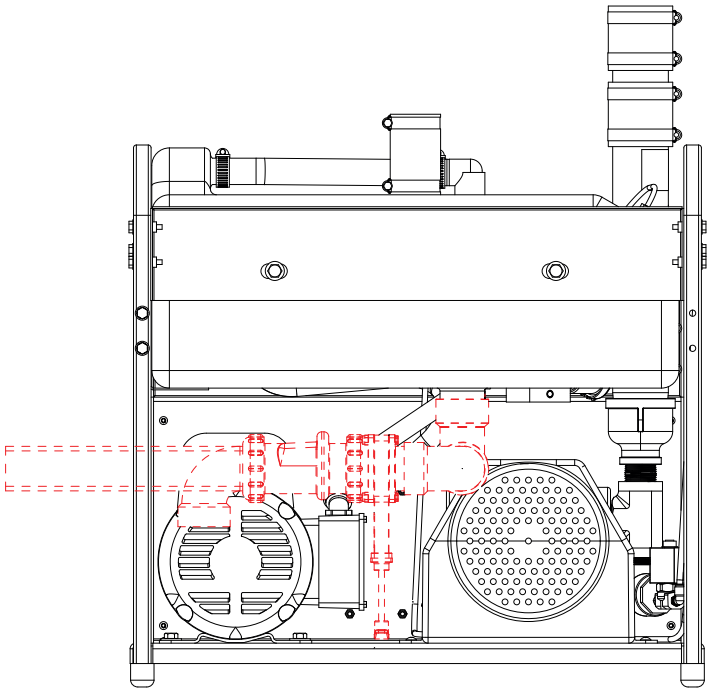
PLUMBING (CONTINUED)

DRAIN VALVE PLUMBING OPTIONS

TOP VIEW



FRONT VIEW



EXHAUST PLUMBING

BIOHAZARD

Breathing dental vacuum system exhaust may be harmful. Exhaust to outside of building. Follow current NFPA 99c edition, Ramvac instructions, and all local codes.

FACILITY EXHAUST LINES

- 2" Schedule 80 CPVC or metal (not tar coated).
- Slope: All horizontal lines toward the vacuum unit, a standard plumbing slope.
- Minimum exhaust length is 15 feet from Ramvac pump to outside end. Contact Ramvac for shorter distances.
- Run dedicated exhaust lines for EACH vacuum unit installed.
- DO NOT connect to plumbing vents.
- Lines must be installed to prevent condensation.
- Support loosely. DO NOT allow piping to touch ductwork. DO NOT make solid attachment to building structure.
- All joints MUST be glued with approved adhesive.
- If exhaust noise is excessive, contact authorized dealer or Ramvac for additional muffler options.
- Turn outside end down toward ground and screen to prevent entry of water, debris and creatures. Locate to prevent exhaust from entering building *(FIGURE 3)*.

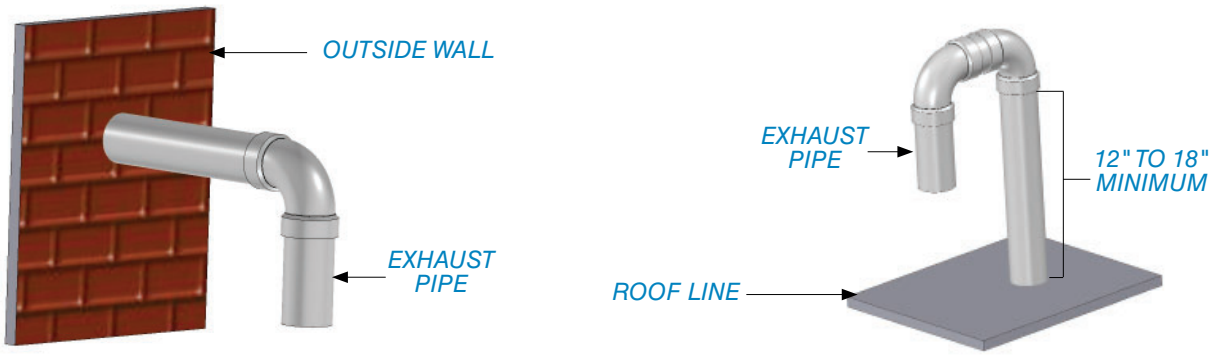


FIGURE 3. OUTSIDE END PLUMBING (INSTALLER SUPPLIED) FOR OUTSIDE WALL OR ROOF LINE

ELECTRICAL

WARNING

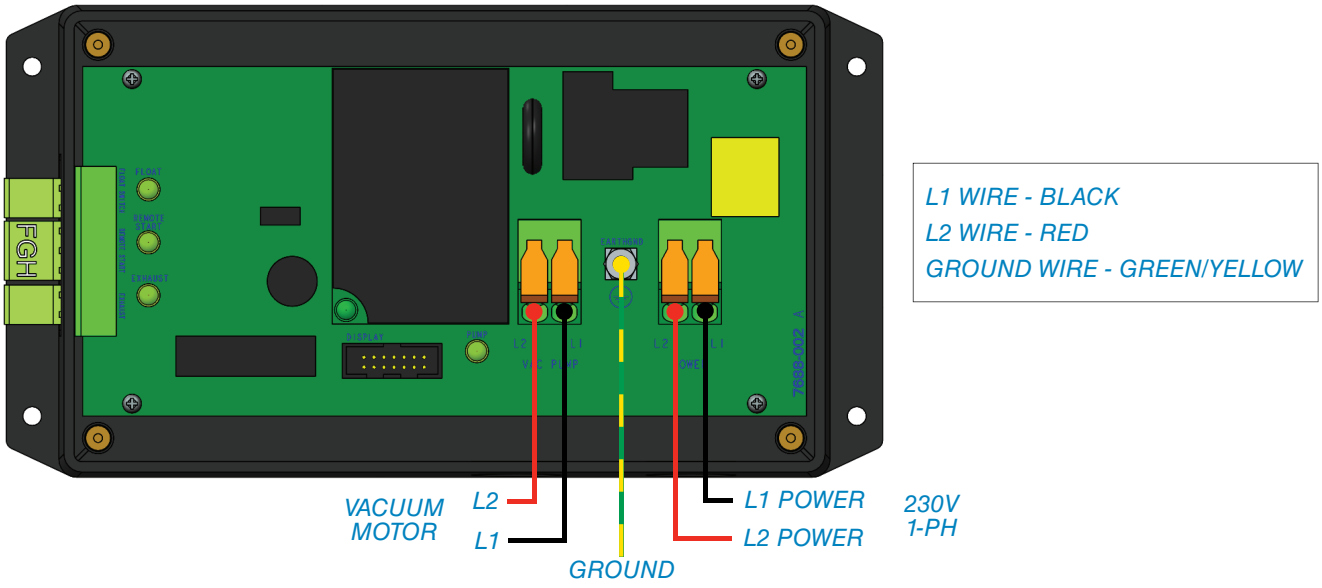
To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

- This device should only be installed by licensed electrical and plumbing contractors too all applicable federal, state or local building codes.
- Electrical shock could occure as a result of improper grounding. This product must be grounded according to NEC regulations and local codes.
- Always turn OFF vacuum pump and remove power when servicing.
- Electrician must provide a means to isolate the circuit electrically from the supply mains on all poles simultaneously. It shall be capable of being locked in the OFF position.

CAUTION

- Use of an extension cord is **NOT** advisable. An undersized extension cord will cause a drop in line voltage and loss of power. Overheating will result.

CONTROL BOX CONNECTIONS



- Follow NEC, NFPA 99c, and all local codes.
- Vacuum pump is shipped with the appropriate 6' electrical power conduit whip.
- Qualified personnel must install a dedicated electrical circuit.
- See *SECTION I - SPECIFICATIONS* for more electrical information.

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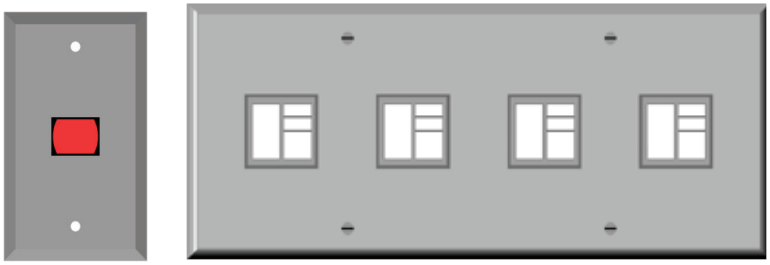
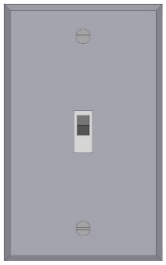
ELECTRICAL (CONTINUED)

REMOTE SWITCHING

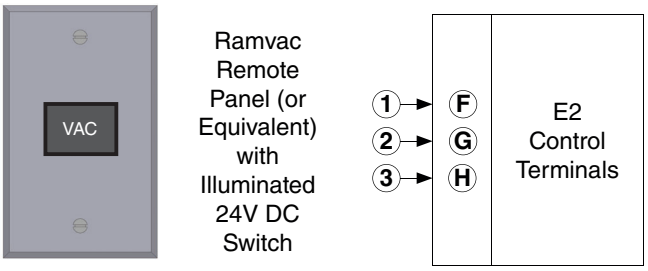
- Low-voltage switching only.
- 18-3 low-voltage wiring for lighted switch.
- 18-2 low-voltage wiring for non-lighted switch.
- Maximum wire length for low-voltage,18-gauge wire is 500 feet.

NOTICE Maximum wire length for 18-gauge wire is 500 feet.

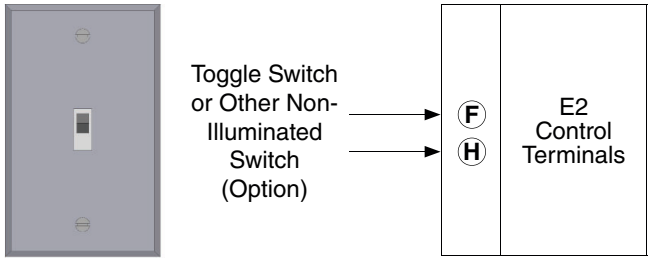
Low-voltage remote switching is used to turn the system on and off from a remote location. Ramvac vacuums are manufactured to continuously run throughout the workday. To conserve power, turn off vacuum if it will not be needed for an hour or more. Power the vacuum off at end of day. *The tank will drain only when no vacuum is present; the vacuum must be turned off at least once per day.*

ILLUMINATED REMOTE PANELS	*NON-ILLUMINATED REMOTE SWITCHES*
	
▪ Switch light is steady on when system is running normally. ▪ Switch light flashes slowly for maintenance. ▪ Switch light flashes rapidly for moisture in filtrols, water in exhaust or low oil level.	Non-illuminated switches provide no indication for system status.

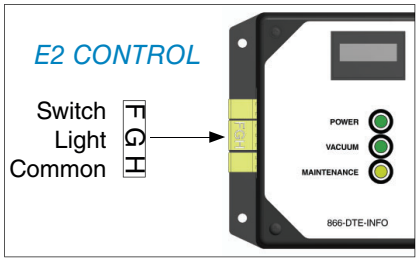
RECOMMENDED SWITCHING

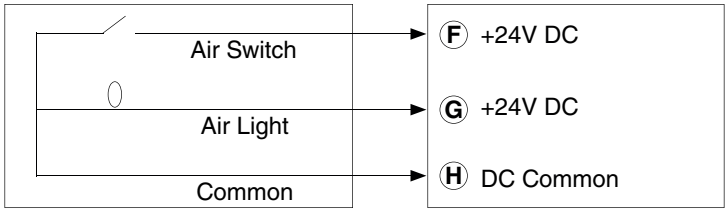


ALTERNATIVE SWITCHING



E2 CONTROL





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ELECTRICAL (CONTINUED)

For electrical ratings*, refer to *SECTION I - INTRODUCTION - SPECIFICATIONS*.

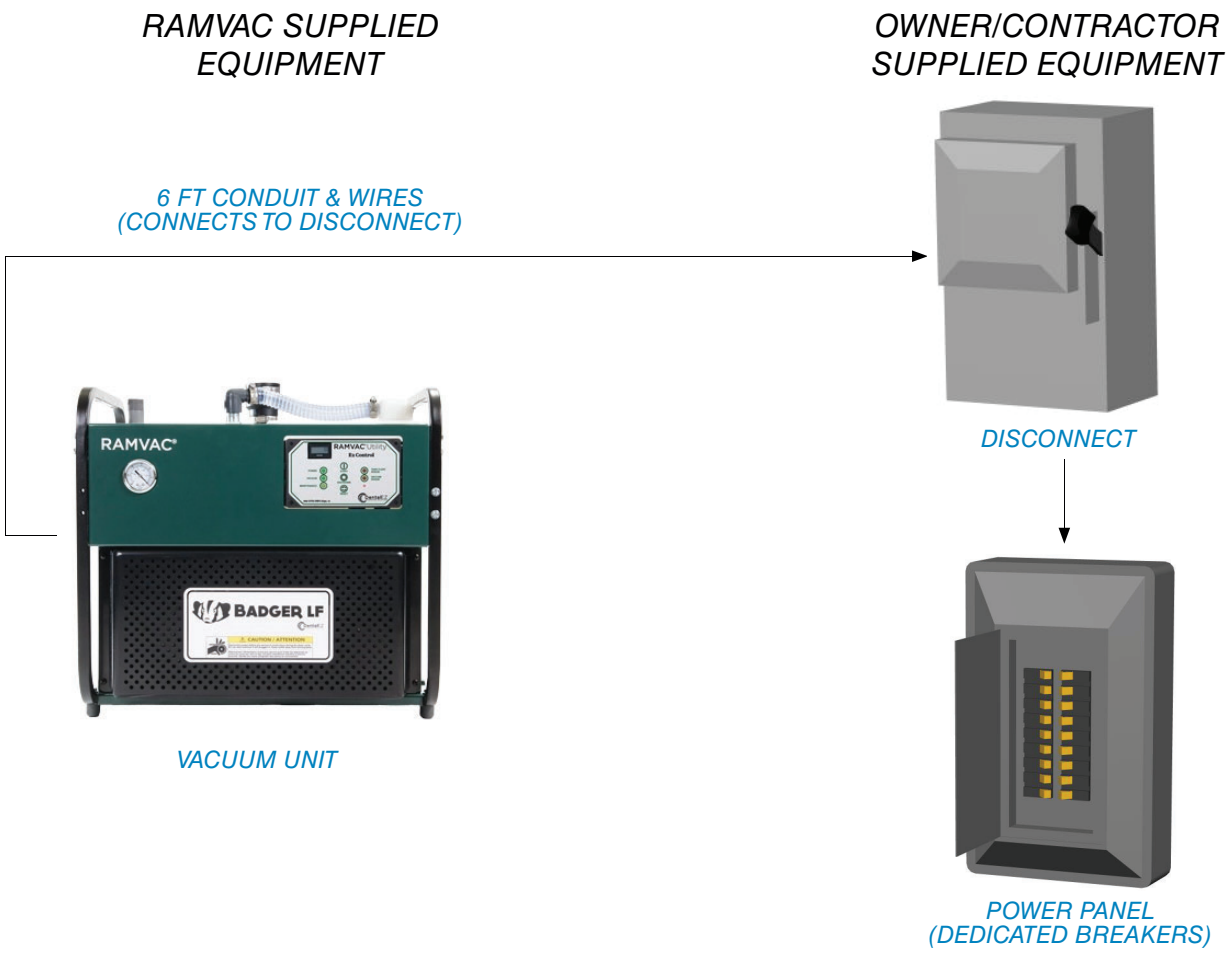
**NOTES:*

1. Recommendations only. Ensure compliance with national and local codes.
2. Fuses must have time delays or be otherwise suitable for motor circuit.
3. Disconnect must be fusible and sized per UL 98, UL 489 or UL 508. Must be supplied and installed by a licensed electrician.
4. Motors are NEMA rated. See NEMA guidelines for applicable voltage and frequency range.

WARNING

To avoid the risk of electrical shock, this equipment must only be connected to a supply mains with protective earth.

SINGLE-PHASE CONNECTIONS



MUFFLER

WARNING

To prevent any chance of electrical shock, always disconnect power when indicated.

TOOLS NEEDED

- 5/16" Nut Driver or Flathead Screwdriver
- PVC Pipe Cutter
- PVC Deburring Tool

ON-UNIT INSTALLATION

1. Disconnect power to the Badger LF at disconnect box.
2. Remove the inlet coupling with 5/16" nut driver and discard *(FIGURE 4)*.

NOTE: *Make sure that the flow arrow on the muffler assembly is pointed in an upward direction away from the unit.*

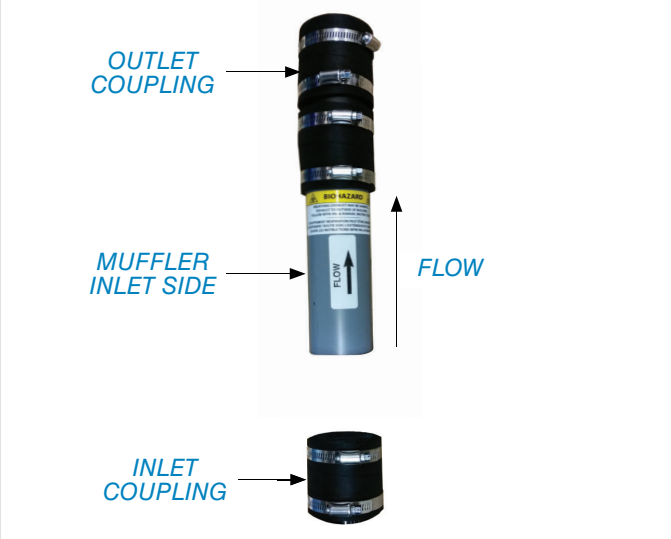


FIGURE 4. ON-UNIT INSTALLATION

3. Insert muffler inlet side into inlet coupling, then tighten hose clamp using 5/16" nut driver or flathead screwdriver.
4. Insert existing exhaust into outlet coupling, then tighten hose clamp using 5/16" nut driver or flathead screwdriver.
5. Reconnect power to the Badger LF, then test unit for proper function.
   - Run unit for 30 minutes, monitoring for any unusual sounds or excessive vibration.

IN-LINE INSTALLATION

1. Remove a section of exhaust line between 13 and 14 inches using PVC pipe cutter.
2. Install existing exhaust line from unit into inlet coupling of the muffler and tighten hose clamp using 5/16" nut driver or flathead screwdriver *(FIGURE 5)*.

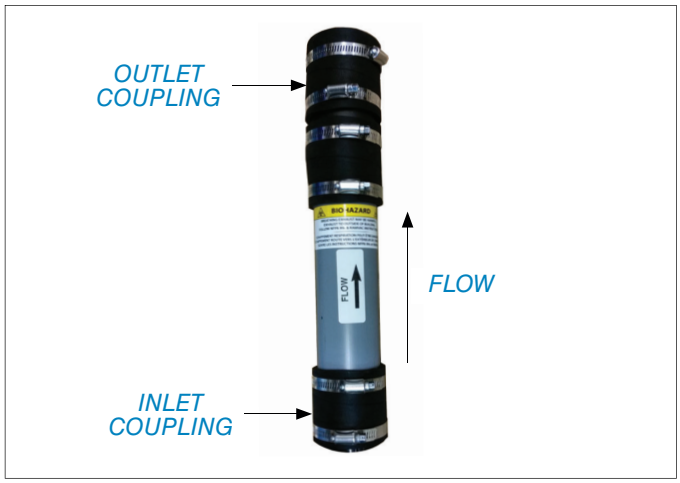


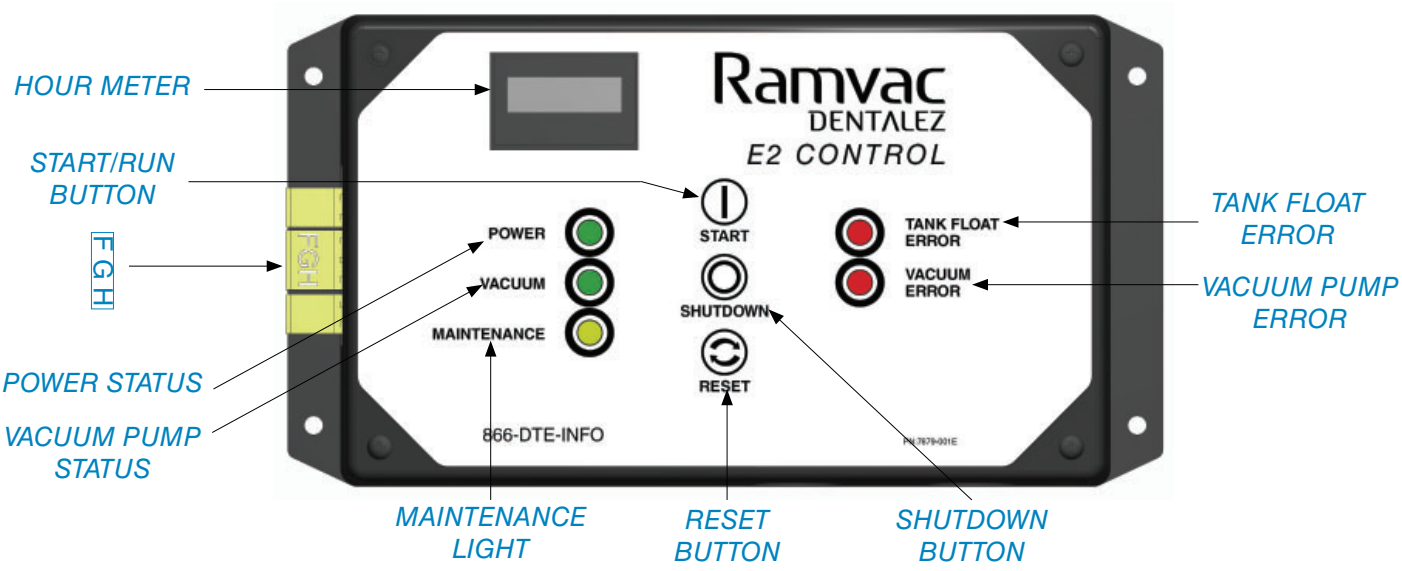
FIGURE 5. IN-LINE INSTALLATION

3. Install external vented exhaust to outlet coupling and tighten hose clamp using 5/16" nut driver or flathead screwdriver.
4. Verify that weight of muffler is properly supported, then test unit for proper function.
   - Run unit for 30 minutes, monitoring for any unusual sounds or excessive vibration.

E2 CONTROL PANEL

FEATURES OF THE E2 CONTROL

- Status Lights
- Power Status – Green light is on when line voltage is present. Power status light flashes while unit is performing a shutdown cycle (see *SECTION IV - OPERATION - SHUTDOWN CYCLE*).
- Vacuum Pump Status – Green light is on when vacuum pump is running.
- Accepts the remote switch input.
- Maintenance Light – Yellow light is on when preventive maintenance is due.
- Provides 24V DC low-voltage signal to the remote switch panel.
- Controls the tank draining sequence.
- Keeps track of runtime hours.
- Error lights display fault information.



E2 FAULTS

FAULTS	*SYSTEM STATUS*	*CORRECTIVE ACTION*
Maintenance	System runs normally. “Maintenance” LED is illuminated.	Perform “Preventive Maintenance”
Vacuum Pump Error	System will not run. Remote switch indicator flashes. “Vacuum Pump Error” LED is illuminated on E2.	See Troubleshooting Section
Tank Float Error	System will not run. Remote switch indicator flashes. “Tank Float Error” LED is illuminated on E2.	See Troubleshooting Section

NOTE: *An Error will cause the unit to shut down. This is to protect the system from damage. An Error Fault should only be cleared after the cause of the fault has been identified and corrected. To clear an Error Fault, press and release the Reset Button. The unit should automatically restart.*

TURNING THE SYSTEM ON/OFF

NOTICE

Make sure all HVEs and saliva ejectors are closed before turning the system off.

The Badger LF can be run continuously throughout the workday. Avoid wasting electricity by turning off if vacuum will not be needed for an hour or more.

NOTE: *No high-voltage switching with the Badger LF.*

NOTE: *No special skills are required by the operator to safely utilize this equipment. Contact the installing dealer or Ramvac if the following pages do not adequately answer all questions.*

SHUTDOWN CYCLE

Turn the unit OFF at the end of each day. When the unit is turned off, the power status light will blink for 90 seconds, the tank will drain, and the vacuum pump will RESTART and run for a period of 10 minutes. After this time has elapsed, the unit will automatically turn off. This cycle is utilized to prevent corrosion to the pump.

VACUUM LEVEL

The vacuum level of the Badger LF is factory set at 7 inch Hg (when all HVEs and SEs are closed). Do not increase vacuuum level above 12 inch Hg.

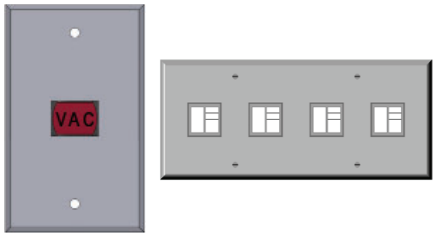
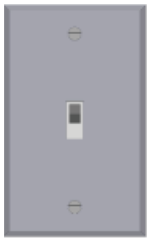
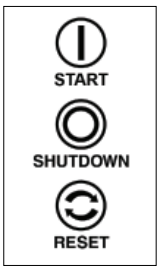


SEPARATION TANK

NOTICE

IMPORTANT: Fluids in the separation tank are hazardous. The Badger's drain must be properly connected to the facility's sewer plumbing.

The Badger LF contains an integrated separation tank that will collect fluids that are evacuated from the operatory room. If the fluid rises to an excessive level within the tank, the Badger LF will disrupt vacuum for approximately 60 seconds in order for the tank to drain. After this drain time has elapsed, the unit will automatically restart and restore the vacuum.

Illuminated Remote Control Panel	Non-Illuminated Remote Panel	E2 Start/Run & Shutdown Pushbuttons
		
Use this switch to turn system on and off from a remote location. ▪ Switch light is steady-on when system is running without “Fault”. ▪ Switch light flashes if a “Fault” has occurred.	Use this switch to turn system on and off from a remote location. ▪ Non-illuminated switches provide no indication for system status.	Use this switch to turn system on and off. ▪ If you have no remote switch. ▪ If you want to turn the system on or off from the equipment’s location.

OVERVIEW

WARNING

Prior to performing any maintenance, proper precautions should be taken to reduce the possibility of contact with infectious substances.

Dry vacuum preventive maintenance is simple, clean and inexpensive. It can help ensure your system provides years of predictable performance. While most maintenance tasks can be performed by the user, Ramvac recommends having all service and maintenance conducted by a dealer service technician.

NOTE: *When servicing this vacuum, only use Ramvac approved service parts. Utilizing non-approved components could lead to system damage and possible termination of product warranty. Circuit diagrams, parts lists and other required information is available to service personnel by contacting Ramvac.*

KEY POINTS FOR TROUBLE-FREE OPERATION

- Follow the recommended *PREVENTIVE MAINTENANCE SCHEDULE*.
- Rinse vacuum lines daily with the recommended quantity of liquid (see *CLEAN VACUUM SYSTEM LINES* in this section).
- Inspect air filters every 1,000 hours. Replace when visibly dirty (see *CHECK/REPLACE AIR FILTERS* in this section).
- Keep area surrounding vacuum pump free of debris.
- Check/replace poly V-belts (see *CHECK/REPLACE POLY V-BELT* in this section).
- Keep vacuum pump clean and free of dirt (see *CLEAN VACUUM UNIT* in this section).
- Replace the pump head on schedule (see *CHECK/REPLACE PUMP HEAD* in this section).
- Maintain a controlled ambient temperature between recommended levels of 40°F to 104°F (4.4°C to 40°C). High temperatures will shorten the life of the vacuum pump (see *SECTION I - INTRODUCTION - SPECIFICATIONS*).

PREVENTIVE MAINTENANCE SCHEDULE

This is a recommended schedule for a vacuum in a clean, dry environment. Any site other than specified will decrease maintenance time exponentially.

Clean Vacuum System Lines	Daily
Check Air Filters	Every 6 Months or 1,000 Hours*
Check V-Belts	Annually or Every 2,000 Hours*
Replace Air Filters	Annually or Every 2,000 Hours*
Replace Pump Head	Every 12,000 Hours*

*The "Maintenance" LED on the E2 control will illuminate every 1,000 hours. To reset the "Maintenance" LED after maintenance has been performed, press and hold the "Reset" button for 10 seconds until the "Maintenance" LED begins blinking.

CLEAN VACUUM SYSTEM LINES

Clean the vacuum lines daily. Just before turning off the vacuum, rinse lines first with hot water–approximately one (1) quart through each high-volume line and a few ounces through each saliva ejector line. Then aspirate a few ounces of dental vacuum line cleaner through each vacuum line. SlugBuster™ vacuum line cleaner is highly recommended. Cleaner should have these qualities: non-foaming, deodorizing, sanitizing and pH between 6 and 10.

⚠ CAUTION

- IMPORTANT: Use of line cleaners outside of the pH range will void the warranty.
- Foam may cause a damage to the pump. Avoid interruptions by ensuring your cleaner is truly non-foaming. Test by shaking the mixed solution. True non-foamers will be bubble-free.

Cleaning requirements will vary according to activity. After surgical procedures, aspirate a few ounces of vacuum line cleaner through the lines. For overhead plumbing, be sure to allow air to follow liquids before closing vacuum valves. Check the treatment room solids separator routinely, and clean when dirty.

SLUGBUSTER ORDERING INFORMATION

NOTE: *Use of SlugBuster™ vacuum line cleaner is highly recommened.*

SlugBuster is a non-foaming, non-chlorinated dental vacuum line cleaner that is compatible with ALL dental vacuum systems and amalgam separators (8 pH). SlugBuster is available in powder and liquid forms, and can be ordered through any authorized Ramvac dealer.

RAMVAC PART NO.	CONTENTS
900143	Powder Starter Pack: Mixing jug, two 40-ounce containers of SlugBuster
900146	Powder Six Pack: Six 40-ounce containers of SlugBuster (makes 480 gallons of solution)
900241	Liquid Single Gallon: One gallon of SlugBuster concentrate and hand pump dispenser
900243	Liquid Starter Pack: Mixing jug, one gallon of SlugBuster concentrate and hand pump dispenser
900246	Liquid Four Pack: Four single gallons of SlugBuster concentrate and four hand pump dispensers



CHECK/REPLACE AIR FILTERS

Filter life depends on vacuum usage, nature of environment, and amount of aspirated material. Inspect air filters every 6 months or 1,000 hours. Replace filters every 2,000 hours or when dirt is visible.

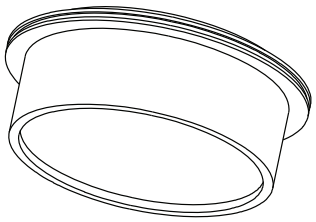
NOTE: *The use of personal protective equipment (gloves) is recommended when handling used air filters.*

FILTER SET ORDERING INFORMATION

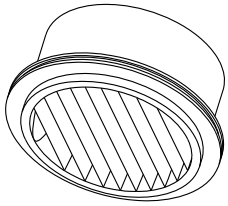
Badger LF dry vacuum filter sets can be ordered through any authorized Ramvac dealer.

RAMVAC PART NO.	CONTENTS
005301SP	Badger LF Service Air Filter Set: 1 main 25mp air filter; 1 vacuum controller 25mp air filter;

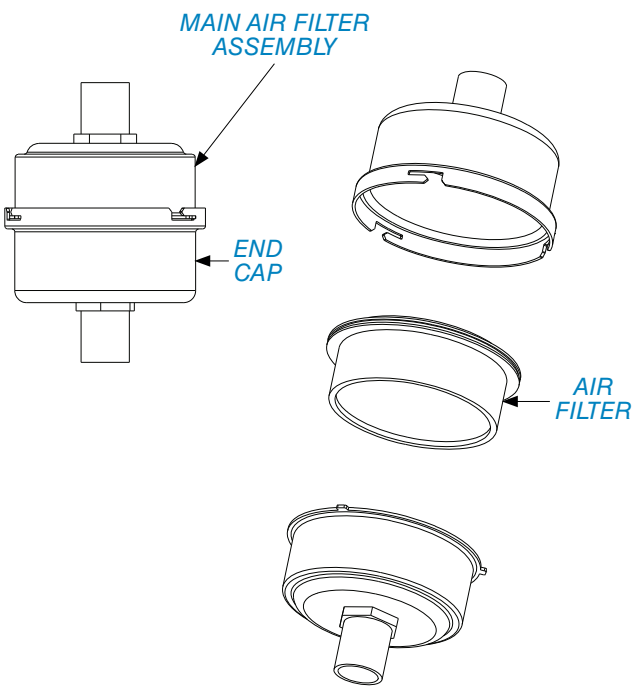
MAIN AIR FILTER

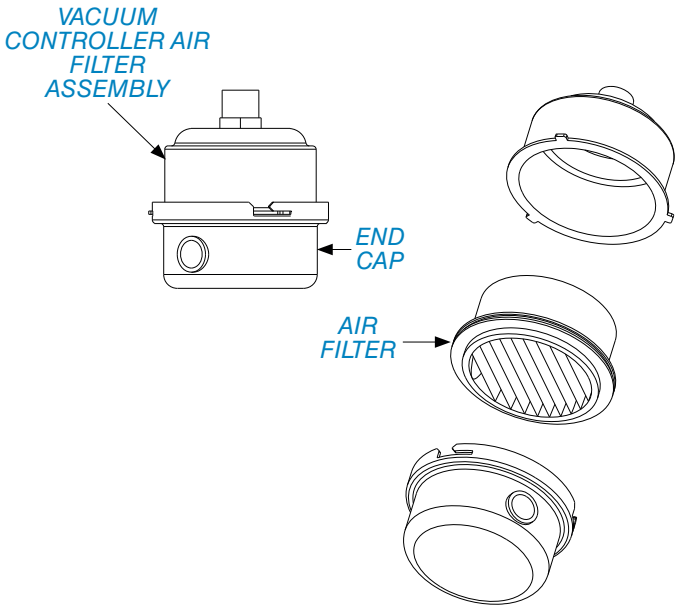


VACUUM CONTROLLER AIR FILTER



The air filter is accessed by twisting the end cap on the air filter assembly in a counter-clockwise motion.





CLEAN VACUUM UNIT

⚠ CAUTION

⚠ Some parts/components on the vacuum unit get hot during operation. Provide the equipment ample time to cool prior to cleaning.

NOTE: *The vacuum unit should be cleaned every 1,000 hours.*

1. Always disconnect the power from the equipment prior to cleaning.
2. All components can be safely wiped down with a damp cloth, wet with water. Using any cleaners or harsh chemicals to clean this equipment is NOT recommended; potentially harmful effects have not been evaluated.
3. Do not heavily wet electrical components.
4. Allow equipment to air dry or dry with clean, soft cloth.

CHECK/REPLACE PUMP HEAD

NOTICE

A detailed instruction sheet will be sent with the replacement pump.

NOTE: *The pump head should be inspected every 1,000 hours.*

1. Always disconnect the power from the equipment prior to cleaning.

CHECK/REPLACE POLY V-BELT

⚠ CAUTION

Disconnect power before any service to avoid injury during dry-down cycle. E2 can start machine if still powered. Keep hands away from moving parts.

NOTE: *The poly V-belt should be inspected every 2,000 hours.*

Replace poly V-belt if frayed or cracked. V-belt tension will not normally need adjustment; however, tension will need adjustment if belt squeaks at start-up. Contact Ramvac technical support for information.

V-BELT ORDERING INFORMATION

Ramvac V-belts can be ordered through any authorized Ramvac dealer. A detailed instruction sheet will be sent with the poly V-belt replacement kit.

RAMVAC PART NO.	VACUUM MODEL	NO. OF BELTS REQUIRED
8801-003	Badger LF2	1



TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Low or No Vacuum (Motor Running Okay)	Tank Drain Check Valve Blocked Open	Clean Tank Drain Check Valve
	Clogged Vacuum Line	Locate and Remove Clog
	Vacuum Controller Stuck Open	Repair or Replace Vacuum Controller
	Vacuum Leaks	Locate and Repair Leaks
	Worn or Broken Vanes	Exchange Pump Head
Motor Does Not Run	"Tripped" Breaker	Reset Breaker
	"Tripped" Motor Overload	Reset Motor Overhead
	Motor Failure	Replace Motor
	Failed Control Component	Replace Failed Component
	"Vacuum Pump Error" Fault	See "Vacuum Pump Error" Fault Below
	"Tank Float Error" Fault	See "Tank Float Error" Fault Below
Liquid Comes Out of Exhaust	Unit Unlevel	Level Unit
	Foam in Tank	Use Non-foaming Line Cleaner
	Improper Oil	Change to Recommended Oil
"Vacuum Pump Error" Fault	High Ambient Temperature	Lower Ambient Temperature
	High Vacuum Pressure	Lower Vacuum Pressure
	Improper Oil	Change to Recommended Oil
Oil Comes Out of Exhaust	Incorrect Electrical Installation	Correct Installation
	Motor Failure	Replace Motor
	"Tripped" Motor Overload	Reset Motor Overload
"Tank Float Error" Fault	Separating Tank Overfilled	Drain Separating Tank
	Separating Tank Drain Check Valve Stuck	Clean Separating Tank Drain Check Valve
	Clogged Drain Line	Locate and Remove Clog
	Drain Shut-off Valve Closed	Open Drain Shut-off Valve
	Tank Float Switch Stuck	Replace Tank Float Switch
	Facility Drain Elevated Abouve Tank Drain	Raise Unit
Maintenenace Alert	Preventive Maintenance Due	Perform Preventive Maintenance

SERVICE INSTRUCTION

If the area of concern is not addressed in this manual, contact DENTALEZ customer service at 866-DTE-INFO. (See *LIMITED WARRANTY*.)

Please have the following product information available. Information may be found on the product model/serial number label on the vacuum *(FIGURE 6)*:

Model Name:

Model Number:

Serial Number:

Date of Installation:

Dealer:

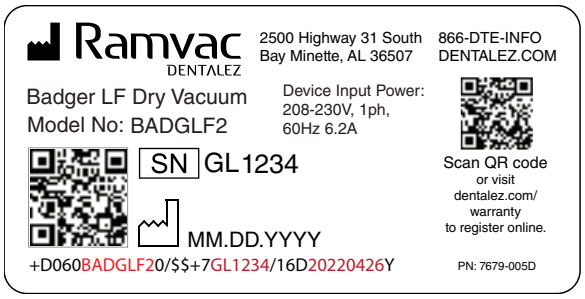


FIGURE 6. MODEL/SERIAL NUMBER LABEL ON THE VACUUM UNIT

DISPOSAL OF EQUIPMENT

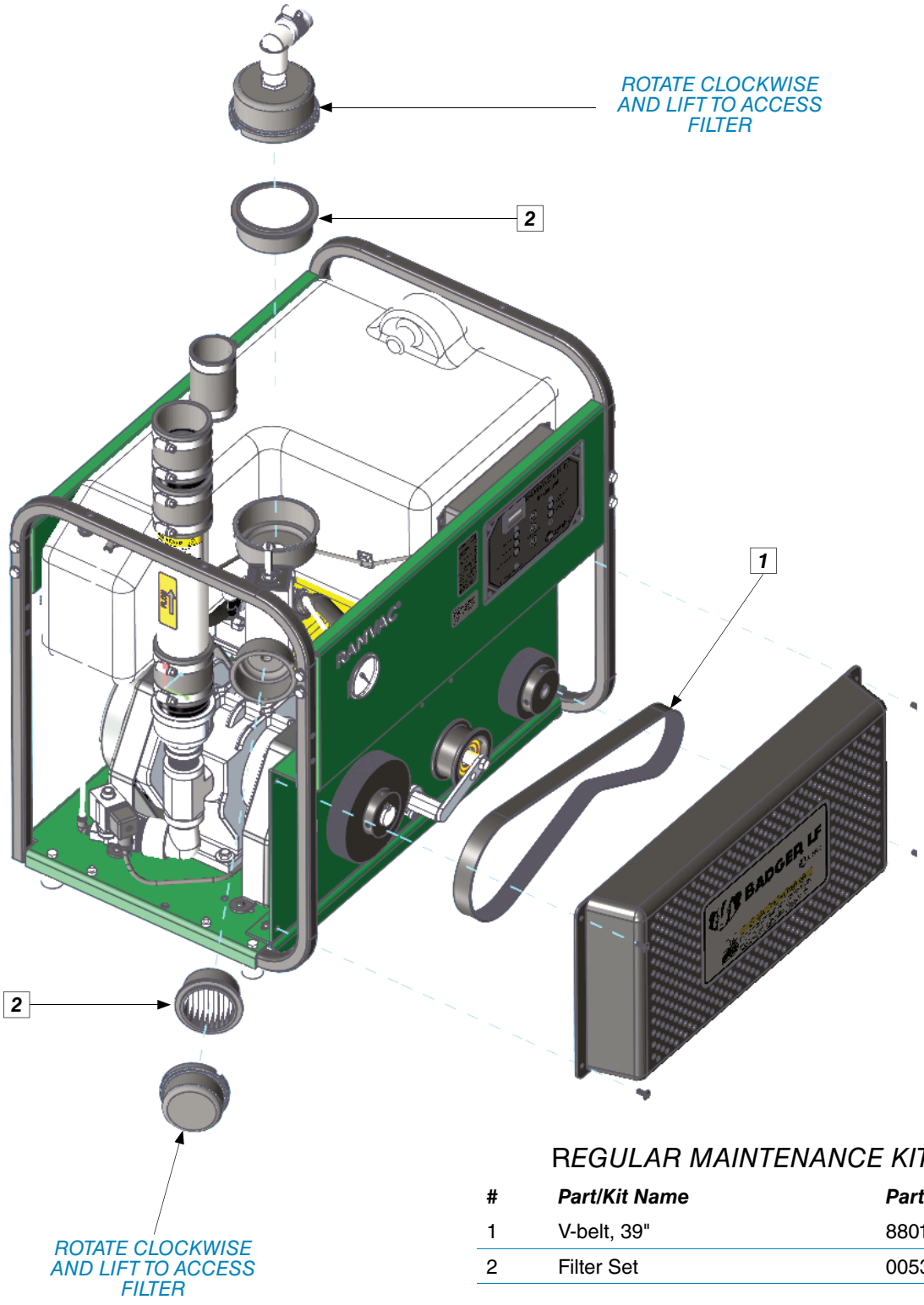
DISPOSAL AND DECOMMISSIONING OF DENTALEZ PRODUCTS

NOTE: *All local regulatory requirements for disposal and decommissioning of equipment apply.*

- *ELECTRICAL SALVAGE:* Remove all circuit board and electrical cabling for recycle as electrical salvage.
- *METAL SALVAGE:* Remove all aluminum and steel components for recycle as metal salvage.
- *PLASTIC SALVAGE:* Remove all plastic components for recycle as plastic salvage.
- *BIOLOGICALLY CONTAMINATED SALVAGE:* Cuspidor, waste lines from the cuspidor, and the oral extraction lines should be handled with precaution and disposed of appropriately.
- *NON-SALVAGE COMPONENTS:* All other material unsuitable for recycling should be disposed of properly.

For specific questions regarding material type, contact DENTALEZ customer service. For decommissioning information on associated equipment from other manufacturers, refer to the documentation from the manufacturer.

REPLACEMENT PARTS LIST

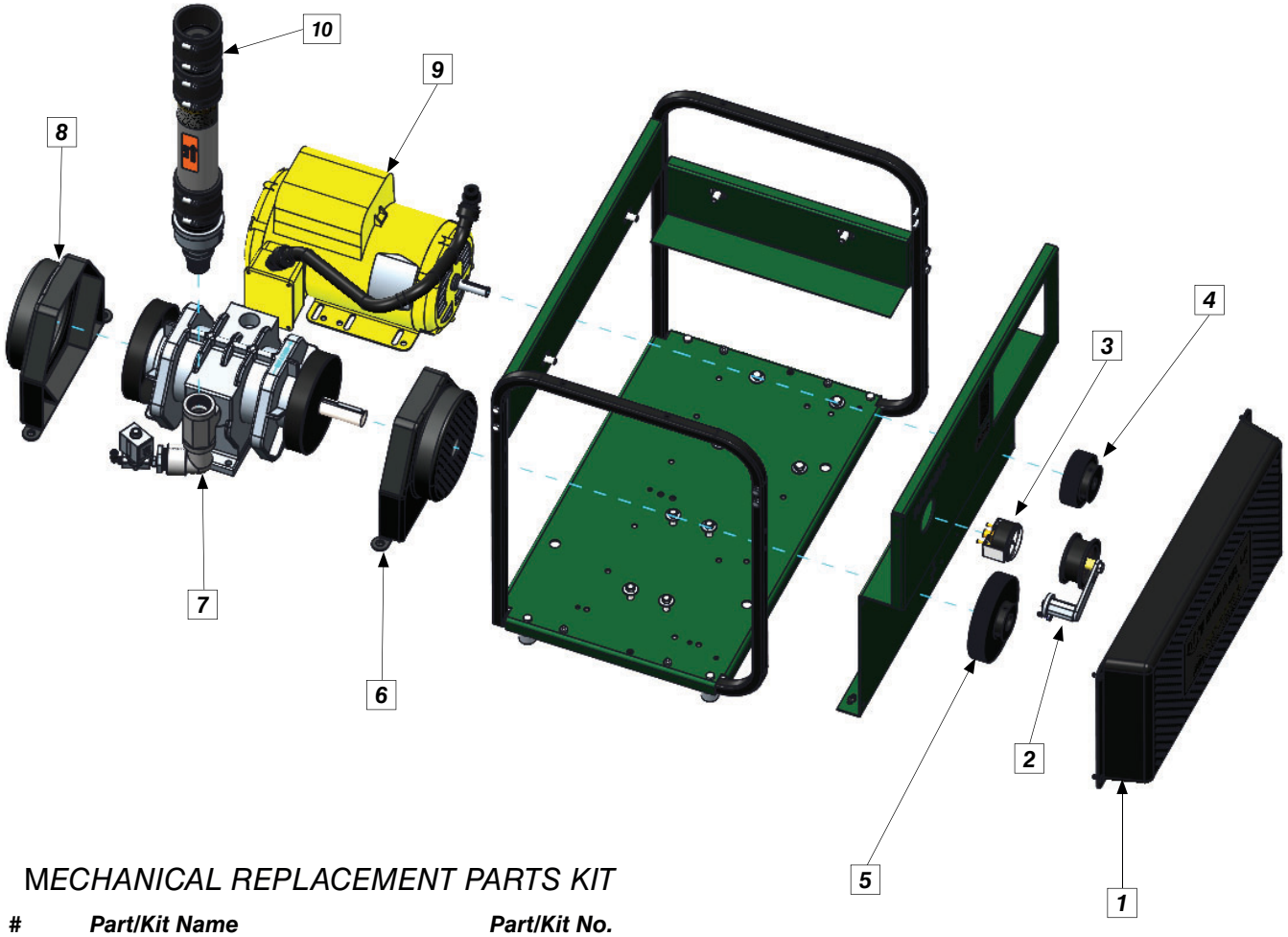


REGULAR MAINTENANCE KIT

#	Part/Kit Name	Part/Kit No.
1	V-belt, 39"	8801-003
2	Filter Set	005301SP

Ramvac

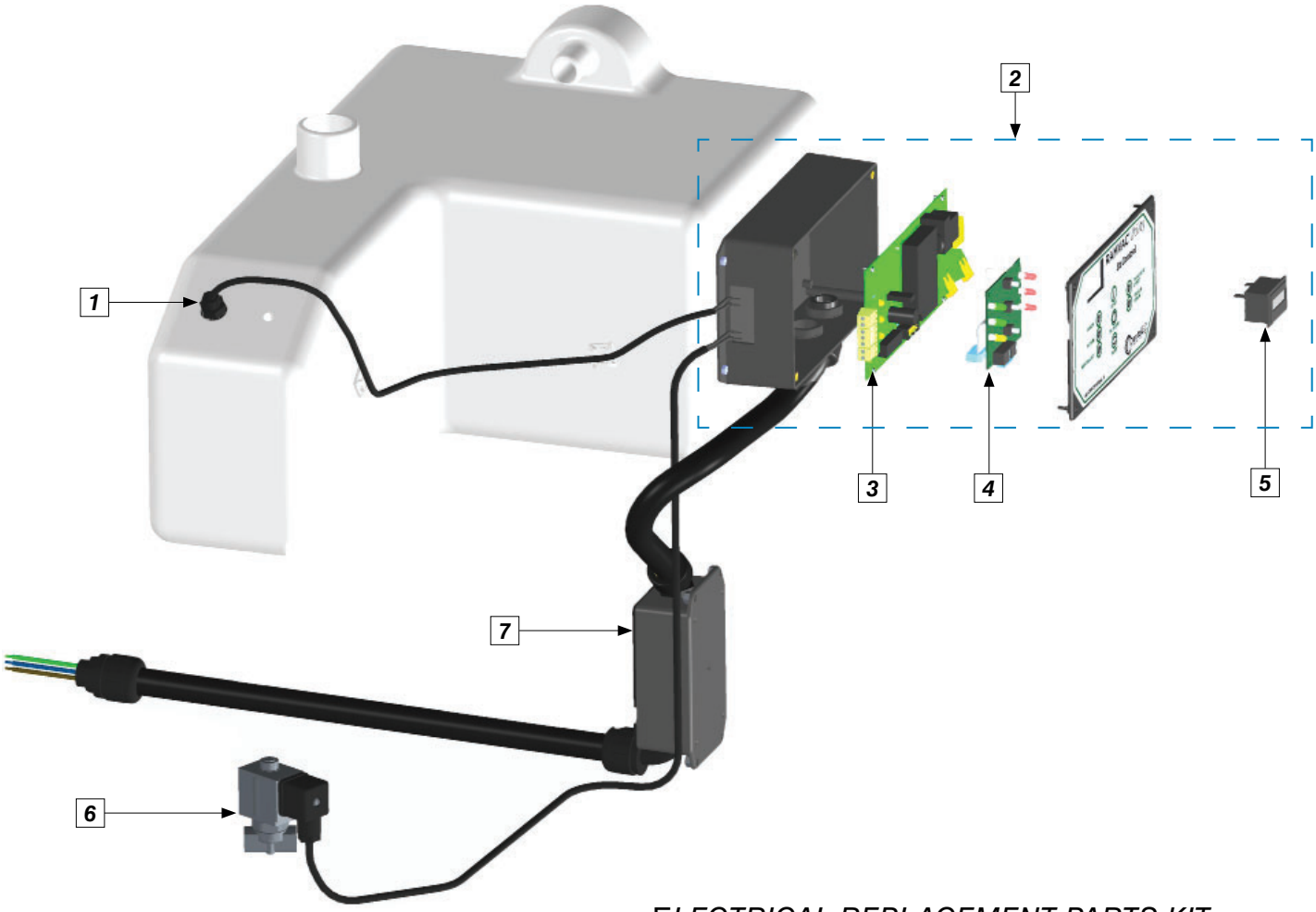
REPLACEMENT PARTS LIST (CONTINUED)



MECHANICAL REPLACEMENT PARTS KIT

#	Part/Kit Name	Part/Kit No.
1	Belt Guard Kit	8801-007
2	Belt Tensioner Assembly Kit	8801-008
3	Vacuum Guage Kit	004617SP
4	Motor Pulley Kit	8801-009
5	Pump Pulley Kit	8801-011
6	Front Pump Fan Cover Kit	8801-012
7	NEW Pump Kit REMANUFACTURED Pump Kit	8801-006 8801-006RM
8	Rear Pump Fan Cover Kit	8801-013
9	Motor Kit	8801-014
10	Muffler Kit	8801-029
	Ramvac Green Touch-up Paint	

REPLACEMENT PARTS LIST (CONTINUED)



ELECTRICAL REPLACEMENT PARTS KIT

#	Part/Kit Name	Part/Kit No.
1	Tank Float Kit	004612SP
2	Complete E2 Control Kit	8801-019
3	E2 Control Board Kit	8801-015
4	E2 LED Display Kit	8801-016
5	E2 Hour Meter	8801-020
6	Solenoid Valve Kit	8801-018
7	Power Harness Kit	8801-017

Medical electrical equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this manual.

Portable and mobile RF communications equipment can affect medical electrical equipment.

The use of accessories, transducers, and cables other than those specified, with the exception of tranducers and cables sold by the manufacturer of this device as replacement parts for internal components, may result in increased emissions or decreased immunity of the Ramvac Badger LF.

The Ramvac Badger LF should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, the Ramvac Badger LF should be observed to verify normal operation in the configuration in which it will be used.

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC EMISSIONS		
The vacuum unit is intended for use in the electromagnetic environment specified below. The customer or the user of the vacuum should assure that it is used in such an environment.		
Emissions Test	Compliance	Electromagnetic Environment - Guidance
RF Emissions CISPR 11	Group 1	The vacuum uses RF energy only for its internal function; therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class A	The vacuum is suitable for use in all establishments, other than domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic Emissions IEC 61000-3-2	Not Applicable	
Voltage Fluctuations/ Flicker Emissions IEC 61000-3-3	Not Applicable	

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY ALL ME EQUIPMENT AND ME SYSTEMS			
The vacuum unit is intended for use in the electromagnetic environment specified below. The customer or the end user of the vacuum should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Electrostatic Discharge (ESD) IEC 61000-4-2	±6 kV Contact ±8 kV Air	±6 kV Contact ±8 kV Air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical Fast Transient/Burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines Not applicable for input/ output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage Dips, Short Interruptions and Voltage Variations on Power Supply Input Lines IEC 61000-4-11	<5% Ut; (>95% dip in Ut) for 0.5 cycle 40% Ut; (60% dip in Ut) for 5 cycles 70% Ut; (30% dip in Ut) for 25 cycles <5% Ut; (>95% dip in Ut) for 5 seconds	Not Applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the equipment or system requires continued operation during power mains interruptions, it is recommended that the equipment or system be powered from an uninterruptible power supply or a battery.
Power Frequency (50/60 Hz) Magnetic Field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: Ut is the AC mains voltage prior to application of the test level.			

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY
ME EQUIPMENT AND ME SYSTEMS

The vacuum unit is intended for use in the electromagnetic environment specified below. The customer or the user of the vacuum should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
Conducted RF IEC 61000-4-6	3 Vrms 150kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the vacuum, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: d = 1.2 √P d = 1.2 √P 80 MHz to 800 MHz d = 2.3 √P 800 MHz to 2.5 GHz where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and *d* is the recommended separation distance in meters (m). Field strengths from fixed RF transmitter, as determined by an electromagnetic site survey[a], should be less than the compliance level in each frequency range[b]. Interference may occur in the vicinity of equipment marked with the following symbol: 
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 Vrms	

NOTE 1: At 80 MHz and 800 MHz, higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the equipment or system is used exceeds the applicable RF compliance level above, the equipment or system should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the equipment or system.

b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

RECOMMENDED SEPARATION DISTANCE BETWEEN PORTABLE AND MOBILE RF COMMUNICATIONS EQUIPMENT AND THE VACUUM UNIT

The vacuum unit is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the vacuum can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the vacuum as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2.5 GHz
	$d = 1.2 \sqrt{P}$	$d = 1.2 \sqrt{P}$	$d = 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.79	3.79	7.27
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where *P* is the maximum output rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Ramvac

BADGER LF DRY VACUUM FROM RAMVAC®

DENTALEZ® and its employees are proud of the products we provide to the dental community. We stand behind these products with a warranty against defects in material and workmanship as provided below and have our own in-house repair facility to service our products. In the event that you experience difficulty with the application or operation of any of our products, please contact our technical service department at our expense at (866) DTE-INFO.

If we cannot resolve the issue by telephone, we will arrange for a representative to contact you or suggest that the product be returned to our factory for inspection.

If product return or repair is required, we will provide you with a **Return Authorization** number and shipping instructions to return the product to the proper facility. If the product is under warranty, we will ask you to provide proof of purchase such as a copy of your invoice. Please be sure to include the **Return Authorization** number on the package you are returning. **Products returned without a return authorization number cannot be repaired.**

Freight costs for product returns are the responsibility of the customer. Products under warranty will be repaired or replaced, at our sole discretion, and returned at our expense. Products outside the warranty limits will be repaired and returned with costs invoiced to the customer. We are not responsible for shipping damages. We will, however, help you file a claim with the freight carrier. Written repair estimates are available.

DENTALEZ warrants all equipment and parts to be free of defects in material and workmanship, under normal usage under the following terms:

Ramvac	Limited Warranty Period*
Badger LF Dry Vacuum	2 Years from date of installation / 5 Years for pump only

Please note the following additional terms of our warranty and return policy:

- This warranty covers manufacturing defects only and does not cover defects resulting from abuse, accidents, misuse, improper handling, cleaning, care or maintenance. Damage resulting from the use of chemicals, cleaners, disinfectants or sterilization is not covered under this warranty nor is normal wear and tear. Failure to follow or observe our operating/use, maintenance and/or installation instructions voids this warranty as does the use of non-authorized parts and repairs made by an unauthorized repair facility.
- Liability is limited to repair or replacement of the defective part(s) or products at our sole discretion. All other liabilities, in particular liability for damages, including, without limitation, special, exemplary, consequential or incidental damages are excluded.
- THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO EMPLOYEE, REPRESENTATIVE OR DEALER IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR TO GRANT ANY OTHER WARRANTY.

WARRANTY REPAIRS

Parts repaired or replaced on a product that is in warranty will be warranted for the duration of that product's original warranty.

PRODUCT RETURNS

Opened products or product returns more than a year old cannot be returned for credit. There will be a 15% ($25.00 minimum) restocking charge on all items authorized for return.

NOTES:

*See individual Product Manuals for complete warranty details. Provided conditions defined in instruction manual are met.

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DENTALEZ EQUIPMENT PRIVACY POLICY

Effective Date: November 1, 2023.

1. **Introduction and Overview.** This Privacy Policy describes how DentalEZ, Inc. its subsidiaries and affiliates (collectively "DentalEZ," "we," "our," or "us") collects, uses, and shares information about you as well as your rights and choices.

   This Privacy Policy applies to your use of the DentalEZ equipment containing the Aeras platform, or similar "smart technology" in such dental or medical equipment and any online service location that posts a link to this Privacy Policy, and all features, content, and other services that we own, control, and make available through such online service location (collectively, the "Service"). By using the Service or our DentalEZ smart equipment, you agree to our Terms of Use ("Terms") and consent to our collection, use and disclosure practices, and other activities as described in this Privacy Policy and the Terms. If you do not agree and consent, discontinue use of the Service and our equipment. If you have any questions or wish to exercise your rights and choices, please contact us as set out in the "Contact Us" section below.

2. **Information Collection.**

   A. Information You Provide.

   We collect information when you use the Service and our DentalEZ smart technology in your dental or medical equipment, including information you provide when you register an account for the Service, update your profile, access our content, test or use equipment, participate in a DentalEZ sweepstakes, contest, survey, special or promotion ("Promotion"), contact DentalEZ customer support or apply for a job with DentalEZ. We may use Service Providers (defined below) to collect information.

   You represent and warrant that you will only provide information and use the Service acting as an employee, owner, director, officer, or contractor of a company, partnership, sole proprietorship, nonprofit or other legal entity (a "Customer"), and that your communications and transactions with DentalEZ occur solely within the context of DentalEZ providing the Service or equipment to the Customer that you represent.

   Information we and our Service Providers on our behalf collect includes the following:

   - **Contact Data**, including your first and last name, email address, office address, phone number, organization name, dental profession and role.
   - **Account Credentials**, including your username, password, and information for authentication and account access.

   You may choose to voluntarily submit other information to us through the Service that we do not request, and, in such instances, you are solely responsible for such information, and we may immediately delete such information, without liability to you.

   B. Information Collected Automatically.

   In addition, we automatically collect information when you use the Service. Information we automatically collect includes the following:

   - **Service Use Data**, including data about the features you use, the pages you visit, the emails and advertisements you view, the products you purchase, the time of day you browse, and your referring and exiting pages.
   - **Device Connectivity and Configuration Data**, including data about the type of device or browser you use, your device's operating software, your internet service provider, your device's regional and language settings, and device identifiers such as IP address, MAC address, and Ad Id (e.g., IDFA or AAID).
   - **Location Data**, including imprecise location data (such as location derived from an IP address, equipment sensor or data that indicates a city or postal code level) and, with your consent, precise location data (such as latitude/longitude data).

- **Equipment Usage and Performance Data**, including performance data collected from sensors connected to the DentalEZ smart technology in your dental or medical equipment, including by not limited to when the equipment is used and for how long, what equipment functions are being used, how the equipment is running, power surges, tank pressure, voltage, oil or water level, maintenance alert, service history, pump intake, runtime and vacuum efficiency, and other kinds of equipment performance data.

We use various tracking technologies to automatically collect information and other data, including the following:

- **Log Files**, which are files that record events that occur in connection with your use of the Service.
- **Cookies**, which are small data files stored on your device that act as a unique tag to identify your browser. We use two types of cookies: session cookies and persistent cookies. Session cookies make it easier for you to navigate our website and expire when you close your browser. Persistent cookies help with personalizing your experience, remembering your preferences, and supporting security features. Additionally, persistent cookies allow us to bring you advertising both on and off the Service. Persistent cookies may remain on your device for extended periods of time, and generally may be controlled through your browser settings.
- **Pixels** (also known as web beacons), which is code embedded in a website, video, email, or advertisement that sends information about your use to a server. There are various types of pixels, including image pixels (which are small graphic images) and JavaScript pixels (which contains JavaScript code). When you access a website, video, email, or advertisement that contains a pixel, the pixel may permit us or a third party to drop or read cookies on your browser. Pixels are used in combination with cookies to track activity by a particular browser on a particular device. We may incorporate pixels from other parties that allow us to track our conversions, bring you advertising both on and off the Service, and provide you with additional functionality, such as the ability to connect our Service with your social media account.
- **Location-Identifying Technologies**, which are technologies used to collect your location. For example, GPS, WiFi, and Bluetooth may be used to collect precise location data. Location data may be used for purposes such as verifying your device's location.

Some information about your use of the Service and other parties' services may be collected using tracking technologies across time and services and used by us and other parties for purposes such as to associate different devices you use, and deliver relevant ads and/or other content to you on the Service and other services.

For further information on tracking technologies and your rights and choices regarding them, see the "Your Rights and Choices" section below.

C. Information from Other Sources.

We also collect information from other sources. To the extent we combine third party sourced information with information we have collected through the Service, we will treat the combined information in accordance with the practices described in this Privacy Policy, plus any additional restrictions imposed by the source of the data. These sources vary over time, but have included:

- **Dealers and/or Service Providers** that sell or provide our equipment to dental offices and you on behalf of your employer.
- **Publicly available sources**, including data in the public domain.

3. Use of Information.

We use information we collect for legitimate business purposes in accordance with the practices described in this Privacy Policy, including to:

- Manage our Service, including registration of your account, provision of access to product literature, and provision of dental equipment with smart technology to manage and monitor the equipment.
- Perform services requested by you, such as scheduling equipment testing and repairs.
- Respond to your comments, questions, requests, and provide customer service.

- Send you technical notices, updates, security alerts, information regarding changes to our policies, and administrative messages.
- Prevent and address fraud, breach of policies or terms, and threats or harm.
- Monitor and analyze trends, usage, activities and failure analysis.
- For research and analysis purposes, including to improve the Service and other DentalEZ websites, marketing efforts, products, equipment and services, and to develop and create new products, equipment and services.
- Develop and send you direct marketing, including advertisements and communications about our and other party's such as our dealers' products, offers, promotions, events, and services.
- Fulfill any other purpose disclosed to you or with your consent.

We may use information we collect to create data and data sets that are not identifiable to you or any individual by aggregating data and/or de-identifying data ("Aggregated Data"). We may use Aggregated Data for any purpose except as prohibited by applicable law. For more information on your rights and choices regarding how we use information about you, please see the "Your Rights and Choices" section below.

1. Sharing of Information.

We share information we collect, including as follows:

- **Service Providers.** We share information with our agents, vendors, dealers, and various other service providers (collectively "Service Providers") in connection with their work on our behalf. Service Providers assist us with services such as payment processing, data analytics, marketing and advertising, website hosting, and technical support to DentalEZ and to you. Service Providers are prohibited from using information about you for any purpose other than to provide this assistance, although we may permit them to use information that does not identify you (including information that has been aggregated or de-identified and equipment performance data) for any purpose except as prohibited by applicable law.
- **Dealers.** We share information with dealers who sell dental or medical equipment and our products , including to enable Dealers to manage and honor Customer equipment warranties, provide repair services to our Customers, and to advertise their services to you.
- **Affiliates.** We may share information with our related entities including our affiliates and related companies. Our Affiliates may use this information to help us provide our Services and equipment and for their own business purposes. For example, we share information with our affiliates who help us manufacture and distribute the DentalEZ smart technology in dental or medical equipment. Our affiliates may also use the information to develop or enhance their own products and services and to promote their own products and services to you.
- **Business Partners.** We may enter into relationships with third party business partners where we license or otherwise disclose data to them to use for their own business purposes. For example, we may license data regarding equipment performance, wear and maintenance to third party equipment manufacturers.
- **Merger or Acquisition.** We may share information in connection with, or during negotiations of, any proposed or actual merger, purchase, sale or any other type of acquisition or business combination of all or any portion of our assets, or transfer of all or a portion of our business to another business.
- **Security and Compelled Disclosure.** We may share information to comply with the law or other legal process, and where required, in response to lawful requests by public authorities, including to meet national security or law enforcement requirements. We also share information in accordance with the applicable laws in order to protect the rights, property, life, health, security and safety of DentalEZ, DentalEZ personnel, the Service or any third party.
- **Consent.** We may share information to fulfill any other purpose disclosed to you or with your consent.

Notwithstanding the above, we may share information that does not identify you (including information that has been aggregated or de-identified and equipment performance data) with third parties except as prohibited by applicable law. For information on your rights and choices regarding how we share information about you, please see the "Your Rights and Choices" section below.

2. Your Rights and Choices.

A. Account Information.

You may access or update certain information that you have provided to us through your account by visiting your account settings or sending an email to the email address set out in the "Contact Us" section below or by contacting your dealer directly. We may require additional information from you to allow us to confirm your identity. Please note that we will retain and use information about you as necessary to provide the Service, comply with our legal obligations, resolve disputes, and enforce our agreements.

B. Tracking Technology Choices.

- **Cookies and Pixels.** Most browsers accept cookies by default. You can instruct your browser, by changing its settings, to decline or delete cookies. If you use multiple browsers on your device, you will need to instruct each browser separately. Your ability to limit cookies is subject to your browser settings and limitations.
- **Do Not Track.** Your browser settings may allow you to automatically transmit a "Do Not Track" signal to online services you visit. Note, however, there is no industry consensus as to what site operators should do with regard to these signals. Accordingly, unless and until the law is interpreted to require us to do so, we do not monitor or take action with respect to "Do Not Track" signals or other mechanisms. For more information on "Do Not Track," visit http://www.allaboutdnt.com.

Please be aware that if you disable or remove tracking technologies some parts of the Service may not function correctly.

C. Analytics.

Our Service contains tracking technologies owned and operated by other parties. For example, we use tracking technologies from analytics providers to help us analyze your use of the Service, compile statistic reports on the Service's activity, and provide us with other services relating to Service activity and internet usage.

D. Communications.

- E-mails. By registering for an account to use the Service, it is implied that you consent to us sending emails to you about the Service, the status of your account and information about your equipment. As such, we may send emails to the email address you provide for transactional and promotional purposes in regard to the Service, the status of your account and your equipment. You can opt-out of receiving certain promotional emails from us at any time by following the instructions as provided in emails to click on the unsubscribe link or emailing us at the email address set out in the "Contact Us" section below with the word UNSUBSCRIBE in the subject field of the email. Please note that you cannot optout of non-promotional emails, such as those about your account, transactions, servicing, or DentalEZ's ongoing business relations.
- Text Messages. You can opt-out of receiving text messages to your phone number at any time by (i) for text messages, texting "STOP" in response to any text message you receive from us or contacting us as set out in the "Contact Us" section below and specifying you want to opt-out of text messages; and (ii) for calls, requesting opt-out during any call you receive from us or contacting us as set out in the "Contact Us" section below and specifying you want to opt-out of calls.

Please note that your opt-out is limited to the email address, phone number and device used and will not affect subsequent subscriptions.

3. Your California Privacy Rights.

Under California Civil Code Section 1798.83, also known as California's "Shine the Light" law, California residents with whom we have an established business relationship are entitled to request and receive, free of charge, once per calendar year, information about certain personal information we shared, if any, with other businesses for their own direct marketing uses in the previous calendar year. To request a copy, please contact us as set out in the "Contact Us" section below. Requests must include "California Privacy Rights Request" in the first line of the description and include your name, street address, city, state, and ZIP code. Please be aware that not all information sharing is covered by the "Shine the Light" law requirements and only information on covered sharing will be included in our response.

1. Your Canadian Privacy Rights.

If you are a resident of Canada, you may be entitled to additional rights regarding your personal information, including: (i) the right to withdraw consent to processing of your personal information where consent is the basis of processing; (ii) the right to access your personal information and certain other supplementary information, under certain conditions; (iii) the right to challenge improper processing of your personal information, under certain conditions; (iv) the right to demand that we restrict the use or disclosure of your personal information, under certain conditions, if you believe we have exceeded the legitimate basis for such use or disclosure, use or disclosure is no longer necessary, or believe your personal information is inaccurate; and (v) the right to lodge a complaint with applicable Canadian data protection authorities. If you want to learn more about your rights under Canadian law or our privacy practices, you may contact our Privacy Officer (see the “Contact Us” section below).

2. Children.

The Service is intended for a general audience and not directed to children under eighteen (18) years of age. DentalEZ does not knowingly collect personal information of children under the age of thirteen (13). If you are a parent or guardian and believe DentalEZ has collected such information in a manner not permitted by law, please contact us as set out in the “Contact Us” section below, and we will remove such data to the extent required by law.

3. Data Security.

We implement and maintain reasonable administrative, physical, and technical security safeguards to help protect information about you from loss, theft, misuse and unauthorized access, disclosure, alteration and destruction. Nevertheless, transmission via the internet is not completely secure and we cannot guarantee the security of information about you that is transmitted over the internet.

4. International Transfer.

We are based in the U.S. and the information we collect is stored and processed in the U.S. and is therefore subject to U.S. law. If you are accessing the Service from outside of the U.S., please be aware that information collected through the Service may be transferred to, processed, stored, and used in the U.S. Data protection laws in the U.S. and other jurisdictions may be different from those of your country of residence. Your use of the Service or provision of any information therefore constitutes your consent to the transfer to and from, processing, usage, sharing, and storage of information about you in the U.S. and other jurisdictions as set out in this Privacy Policy

5. Changes to this Privacy Policy.

We reserve the right to revise and reissue this Privacy Policy at any time. Any changes will be effective immediately upon posting of the revised Privacy Policy. Your continued use of our Service indicates your consent to the Privacy Policy then posted. If the changes are material, we may provide you additional notice to your email address.

6. Contact Us.

If you have any questions or comments about this Privacy Policy, our data practices, or our compliance with applicable law, please contact us:

By email:

DentalEZIOT@DentalEZ.com

By mail:

Attention: Privacy Officer
310 Lindenwood Drive, Suite 100
Malvern, PA 19355

DENTALEZ TERMS OF USE FOR EQUIPMENT WITH SMART TECHNOLOGY

Effective Date: November 1, 2023.

1. Introduction and Overview.

These Terms of Use ("Online Terms") set forth a legally binding agreement between DENTALEZ, Inc., DentalEZ Alabama, Inc., DTE Oregon, Inc., their subsidiaries and affiliates (collectively "DentalEZ", "we", "our", or "us") and the person or entity identified on the order form or other Service (as defined below) subscription purchase document ("Customer"). These Online Terms govern your access to and use of the DentalEZ "smart technology" contained in certain DentalEZ dental equipment as well as any service that posts a link to these Terms or integrates with certain DentalEZ smart technology contained in certain DentalEZ dental equipment that Customer may have purchased from us or through your local dealer, and all features, content, and other services that we own, control and make available through such online service (collectively, the "Service").

You hereby represent and warrant that you will access and use the Service acting in your capacity as an employee, owner, director, officer, or contractor of a Customer, and that your communications and transactions with DentalEZ occur solely within the context of DentalEZ providing the Service to the Customer that you represent. As such, you hereby represent and warrant that you have the authority to bind such Customer to these Online Terms (in which case "you" or "your" will refer to you and such Customer). By initiating the first use of the Service, you the User acknowledge and agree upon the entire contents of these Online Terms.

In some instances, both these Online Terms and separate terms that we make available to you through the Service or through your local dealer will apply to your use of the Service (the "Additional Terms" and collectively, with the Online Terms, the "Terms"). To the extent there is a conflict between these Online Terms and any applicable Additional Terms, the Additional Terms will control unless they expressly state otherwise.

By accessing or using the Service, you agree to these Terms, and agree to our collection, use and disclosure practices, and other activities as described in our Privacy Policy, as amended from time to time (the "Privacy Policy). If you do not agree to these Terms and our posted Privacy Policy, you must discontinue your use of the Service (and this is your sole remedy).

2. Service Use.

A. About the Service.

Subject to these Terms, the Service may enable you to register and create an Account (defined below), view certain data collected by the sensors in your DentalEZ smart technology enabled equipment, use the configuration manager software to manage your DentalEZ smart technology equipment settings, install software updates on your DentalEZ smart technology enabled equipment, manage access to the Service and communicate with DentalEZ regarding the use and operation of your DentalEZ smart technology enabled equipment.

B. Content.

The Service contains: (i) materials and other items relating to DentalEZ and its products and services, and similar items from our licensors and other third parties, including all layout, information, databases, articles, posts, text, data, files, images, scripts, designs, graphics, instructions, illustrations, photographs, sounds, pictures, videos, advertising copy, URLs, technology, software, software documentation, interactive features, the "look and feel" of the Service, and the compilation, assembly, and arrangement of the materials of the Service and any and all copyrightable material; (ii) trademarks, logos, trade names, trade dress, service marks, and trade identities of various parties, including those of Aeras; and (iii) other forms of intellectual property (all of the foregoing, collectively "Content"). All right, title, and interest in and to the Service and the Content, as well as all derivative works thereof, are owned by us or our licensors or service providers, and are protected by U.S., Canadian and international copyright, trademark, trade dress, patent and/or other intellectual property and unfair competition rights and laws to the fullest extent possible.

C. Limited License.

Subject to your strict compliance with the Terms, DentalEZ grants you a limited, non-exclusive, revocable, non-assignable, personal, and non-transferable license to download, display, view, use, and play the Content on a personal computer, browser, laptop, tablet, mobile phone, or other internet enabled device (each, a "Device"), in each case for your personal, non-commercial use only. The foregoing limited license (i) does not give you any ownership of, or any other intellectual property interest in, any Content, and (ii) may be suspended or terminated

for any reason, in DentalEZ' sole discretion, and without advance notice or liability. Your unauthorized use of the Content may violate copyright, trademark, privacy, publicity, communications, and other laws, and any such use may result in your personal liability, including potential criminal liability.

D. Accounts.

Certain features of the Service may require you to register an account, including access to equipment performance data associated with your DentalEZ smart technology enabled equipment purchased directly from DentalEZ, a third-party equipment manufacturer or through your local dealer ("Account"). When registering an Account or using DentalEZ smart technology enabled equipment, you agree to: (i) provide true, accurate, current, and complete information; (ii) maintain and update this information to keep it true, accurate, current, and complete; (iii) protect your Account log-in credentials so as to prevent unauthorized access to your Account or equipment; (iv) not share your Account or log-in credentials with any third party or transfer your Account to any third party; and (v) immediately notify us of any suspected or actual unauthorized use of your Account, equipment or breach of security. Your right to access and use the Service is not transferable by you to any other third party. You are solely responsible for all activities that occur under your Account, whether or not you authorized the activity, and we are not liable for any loss or damage to you or any third party arising from your failure to comply with any of the foregoing obligations.

E. Restrictions.

You may not use the Service unless you are at least eighteen (18) years old and are fully able and competent to agree to and comply with the Terms (in their entirety). If you accept the Terms, you represent that you have the capacity to be bound by them.

You may not: (i) use the Service or Content for any political purpose; (ii) engage in any activity in connection with the Service or Content that is unlawful, harmful, offensive, sexually explicit, obscene, violent, threatening, harassing, abusive, falsely representative of your persona, invasive of someone else's privacy, or otherwise objectionable to DentalEZ; (iii) harvest or scrape any information from the Service or Content; (iv) reverse engineer or modify the Service or Content; (v) interfere with the proper operation of or any security measure used by the Service or Content; (vi) infringe any intellectual property or other right of any third party; (vii) use the Service or Content in a manner that suggests an unauthorized association or is beyond the scope of the limited license granted to you; or (viii) otherwise violate the Terms including these Online Terms and any applicable Additional Terms.

You agree to comply with all local, state, federal, national, foreign, supranational, and international laws, statutes, ordinances, regulations, treaties, directives, and agreements that apply to your use of the Service and Content.

F. Availability.

DentalEZ may suspend or terminate the availability of the Service and Content, in whole or in part, to any Account, individual user or all users, for any reason (including, a failure to pay Service subscription fees when due), in DentalEZ' sole discretion, and without advance notice or liability. Upon suspension or termination of your access to the Service, or upon notice from DentalEZ, all rights granted to you under the Terms will cease immediately, and you agree that you will immediately discontinue use of the Service and Content.

G. Reservation of Rights.

All rights not expressly granted to you are reserved by DentalEZ and its licensors and other third parties. No right or license may be construed, under any legal theory, by implication, estoppel, industry custom, or otherwise. Any unauthorized use of the Content or Service for any purpose is prohibited.

H. Data

The Service may enable the collection of data relating to Customer's use of the Service and Equipment through sensors, the Service features described in Section 7 and information that is transmitted, uploaded and/or submitted to the Service by Customer and its employees, owners, directors, officers, and contractors, including usage information such as logins, button-presses, and maintenance history and records ("Customer Data"). As between DentalEZ and Customer, Customer is the owner of the Customer Data. Customer hereby grants DentalEZ a worldwide, nonexclusive, transferable, sublicensable, perpetual, irrevocable, fully paid up and royalty free right and license to use, reproduce, prepare derivative works of, distribute, perform, display, arrange, de-identify, create Aggregated Data (as defined below) from, and otherwise exploit for DentalEZ' business purposes, any Customer Data, and to use the know-how and analytical results resulting therefrom in connection with the

enhancement, improvement, and provision of Service and derivatives thereof, provided that DentalEZ shall disclose Customer Data that is identifiable to Customer or any individual only as permitted in our Privacy Policy.

You understand that you will not receive any fees, sums, consideration, or remuneration for any of the rights granted in this Section. You waive any and all rights and claims in connection with our use of, or development of any product, content, or other materials using in whole or in part, Customer Data. You represent and warrant that you own or have the necessary rights, licenses, consents, and permissions to grant us the rights granted in this Section.

I. Aggregated Data.

For the purposes of these Online Terms and the Privacy Policy: "Aggregated Data" means data, including data derived from Customer Data, that does not identify you (including information that has been manipulated, de-identified or combined to provide generalized or anonymous information).

As between the you and DentalEZ, DentalEZ owns all right, title and interest in and to Aggregated Data. DentalEZ may use or share Aggregated Data for any purpose including developing, providing, enhancing, and improving the Service, DentalEZ equipment and DentalEZ' other current and future online and offline products and services.

1. Submissions.

When you submit any unsolicited ideas, feedback, opinions, techniques, images, sounds, videos, or other content to us through or relating to the Service ("Submissions"), you grant us a non-exclusive, unrestricted, unconditional, unlimited, worldwide, irrevocable, perpetual, transferable and cost-free right and license to host, store, use, display, reproduce, modify, adapt, edit, combine with other materials, publish, distribute, create derivative works from, promote, exhibit, broadcast, syndicate, sublicense (including, without limitation, to third party media channels, platforms, and distributors), publicly perform, publicly display, and otherwise use and exploit in any manner whatsoever, or grant third parties the right to do any of the foregoing, all or any portion of your Submissions, for any purpose whatsoever in all formats, on or through any means or medium now known or hereafter developed, and with any technology or devices now known or hereafter developed, and to advertise, market, and promote the same. You further irrevocably grant us the right, but not the obligation, to use your name in connection with your Submissions. You also agree to waive any right of approval for our use of the rights granted herein and agree to waive any moral rights that you may have in any Submissions, even if it is altered or changed in a manner not agreeable to you. To the extent not waivable, you irrevocably agree not to exercise such rights in a manner that interferes with any exercise of the granted rights.

You understand that you will not receive any fees, sums, consideration, or remuneration for any of the rights granted in this Section. Our receipt of your Submissions is not an admission of their novelty, priority, or originality, and it does not impair our right to existing or future intellectual property rights relating to your Submissions. You waive any and all rights and claims in connection with our consideration, use, or development of any product, content, or other materials similar or identical to your Submission now or in the future.

You represent and warrant that you own or have the necessary rights, licenses, consents, and permissions to grant us the rights granted in this Section. You alone, though, retain whatever legally cognizable right, title, and interest that you have in your Submission and remain responsible for them.

2. Products.

We do our best to describe every product or service offered on our Service as accurately as possible. However, we are human, and therefore we do not warrant that product specifications, pricing, or other content on the Service is complete, accurate, reliable, current, or error-free. In the event of any errors relating to the pricing or specifications, DentalEZ shall have the right to refuse or cancel any orders in its sole discretion. If we charged your credit card or other Account prior to our cancellation, we will issue a credit to your Account in the amount of the charge. Additional Terms may apply. If a product or service you purchased from DentalEZ is not as described, your sole remedy is to cancel the purchase and receive a credit for the purchase price.

For any purchases made through dealers or resellers, please contact their customer support. Their terms, conditions and policies, and not ours, apply and we do not handle returns or refund requests for purchases through those third-party platform providers.

1. Customer Support; Notice.

If you have any questions or comments, please send an e-mail to us at DentalEZIOT@DentalEZ.com. You acknowledge that the provision of support is at DentalEZ' sole discretion and that we have no obligation to provide you with customer support of any kind. All legal notices to us must be mailed to: 301 Lindenwood Drive, Suite 100, Malvern Pennsylvania19355. When you communicate with us electronically, you consent to receive communications from us electronically. You agree that all agreements, notices, disclosures, and other communications that we provide to you electronically satisfy any legal requirement that such communications be in writing.

2. Other Services.

Our Service contains content from and hyperlinks to websites, locations, platforms, and services operated and owned by other parties ("Other Services"). We may also integrate Other Services technologies into our Service and host our content on Other Services. These Other Services are not owned, controlled, or operated by us, and you acknowledge and agree that we are not responsible or liable for the information, content, products, technologies, or services on or available from such Other Services, or for the results to be obtained from using them. These Other Services are made available as a convenience only and are not part of the "Service" or subject to any of the warranties (whether express or implied) or other obligations with respect to Service hereunder. DentalEZ has no obligation to monitor or maintain Other Services and may disable or restrict access to any Other Services at any time without notice.

If you choose to access, transact with, or otherwise interact with any such Other Services, you do so at your own risk. Your access to and use of any Other Services is solely determined by the relevant third-party provider and may be subject to such additional terms and conditions applicable to such Other Services. You are solely responsible for maintaining appropriate accounts in good standing with the Other Services providers. Aeras will have no liability or other obligation to you for such Other Services or your content or data exported to Other Services, including but not limited to any unavailability of any Other Services, or any third-party provider's decision to discontinue, suspend or terminate any Other Services.

In addition, by using or enabling any Other Services, you are expressly permitting DentalEZ to disclose your content, data or other information to the extent necessary for the Service to interoperate with, or for you to utilize, the Other Services. We are not responsible for any disclosure, modification or deletion of your content, data or other information resulting from access by, or transmission to, any Other Service. For more information on Other Services, see our Privacy Policy.

3. Service Features.

A. Wireless Features.

The Service may offer features that are available to you via your wireless Device including the ability to access the Service's features and upload content to the Service (collectively, "Wireless Features"). By using the Service, you agree that DentalEZ may collect information related to your use of the Wireless Features as described in our Privacy Policy, and may change, alter, or modify the settings or configurations on your Device in order to allow for or optimize your use of the Service. Data rates and other carrier fees may apply.

B. Location-Based Features.

If you have location-based features on your wireless Device, you acknowledge that your Device location will be tracked and shared consistent with the Privacy Policy. You can terminate location tracking by us by adjusting the permissions in your Device. Location-based features are used at your own risk and location data may not be accurate.

C. Communications.

(i) E-mails: By registering for an Account, it is implied that you consent to us sending you emails about the Service and the status of your Account. As such, we may send emails to the email address you provide for transactional and promotional purposes in regard to the Service and the status of your Account. You have the right to opt-out of receiving certain promotional e-mails about the Service or your Account from us at any time by following the instructions as provided in e-mails to click on the unsubscribe link or contacting us at

DentalEZIOT@DentalEZ.com with the word UNSUBSCRIBE in the subject field of the e-mail. We will unsubscribe your email from promotional e-mails sent by us within 10 business days of our receipt of your opt-out request. Your opt-out of promotional emails will not affect nonpromotional e-mails, such as those about your Account, transactions, servicing, or DentalEZ' ongoing business relations with you.

(ii) Text Messages: We may send you reoccurring text messages to the phone number you provide for transactional and promotional purposes in regard to the Service, your Account or DentalEZ products and services. You understand that your consent is not required as a condition of purchase, and that you can opt-out of receiving certain promotional text messages from us at any time by:

- for text messages, texting "STOP" in response to any text message you receive from us or contacting us at DentalEZIOT@DentalEZ.com and specifying you want to opt-out of text messages; and
- for calls, requesting opt-out during any call you receive from us or contacting us at DentalEZIOT@DentalEZ.com and specifying you want to opt-out of calls. For text messages, you can also text "HELP" at any time for more information. We will unsubscribe your phone number from reoccurring texts messages from us within 10 business days of our receipt of your opt-out request. You understand that you may receive a text message confirming any opt-out by you. Standard message, data, and other fees may be charged by your carrier, and carriers may deduct charges from pre-paid amounts or data allowances, for which you are responsible. Not all phone and/or carriers are supported. Contact your carrier for further details.

Please note that any opt-out by you is limited to the e-mail address, phone number and device used and will not affect subsequent subscriptions.

4. Agreement to Arbitrate and Choice of Law.

PLEASE READ THIS SECTION CAREFULLY – IT MAY SIGNIFICANTLY AFFECT YOUR LEGAL RIGHTS, INCLUDING YOUR RIGHT TO FILE A LAWSUIT IN COURT AND TO HAVE A JURY HEAR YOUR CLAIMS. IT CONTAINS PROCEDURES FOR MANDATORY BINDING ARBITRATION AND A CLASS ACTION WAIVER.

A. We Both Agree to Arbitrate.

You and DentalEZ agree to resolve any claims relating to these Terms through final and binding arbitration, except to the extent you have in any manner violated or threatened to violate DentalEZ' intellectual property rights (for example, trademark, trade secret, copyright, or patent rights). Under such circumstances DentalEZ may bring a lawsuit solely for injunctive relief to stop unauthorized use or abuse of the Service, or intellectual property infringement (for example, trademark, trade secret, copyright, or patent rights) without first engaging in arbitration or the informal dispute-resolution process described herein.

B. What is Arbitration.

Arbitration is more informal than a lawsuit in court and seeks to resolve disputes more quickly. Instead of a judge or a jury, the case will be decided by a neutral arbitrator who has the power to award the same damages and relief that a court can. If any provision of this arbitration agreement is found unenforceable, the unenforceable provision shall be severed, and the remaining arbitration terms shall be enforced.

C. Arbitration Procedures.

The Federal Arbitration Act governs the interpretation and enforcement of this dispute resolution provision. Arbitration shall be initiated through JAMS. Any dispute, controversy, or claim arising out of or relating to these Terms shall be referred to and finally determined by arbitration in accordance with the JAMS Streamlined Arbitration Rules and Procedures in front of one arbitrator. If there is a conflict between JAMS Rules and the rules set forth in these Terms, the rules set forth in this Terms will govern. The JAMS Rules and instructions for how to initiate an arbitration are available from JAMS at http://www.jamsadr.com or 1-800-352-5267. To initiate arbitration, you or DentalEZ must do the following things:

(1) Write a demand for Arbitration. The demand must include a description of the Claim and the amount of damages sought to be recovered. You can find a copy of a demand for Arbitration at www.jamsadr.com.

(2) Send three copies of the demand for Arbitration, plus the appropriate filing fee to: JAMS to your local JAMS office or to JAMS, Two Embarcadero Center, Suite 1500, San Francisco, CA 94111.

(3) Send one copy of the demand for Arbitration to the other party.

Payment of all filing, administration and arbitrator fees will be governed by the JAMS Rules. Arbitration under this agreement shall be held in the United States in Pennsylvania, under Pennsylvania law without regard to its conflict of laws provisions. If traveling to Pennsylvania is a burden, you may participate in the arbitration by phone or via document submission to the fullest extent allowable by the arbitrator. Each party will bear their own costs of arbitration unless the arbitrator directs that bearing such costs would be an undue burden and, in that case, we will pay for your portion of the arbitration administrative costs (but not your attorneys' fees). The arbitration may award on an individual basis the same damages and relief as a court (including injunctive relief). Any judgment on the award rendered by the arbitrator may be entered in any court of competent jurisdiction.

D. Authority of Arbitrator.

The arbitrator will decide the rights and liabilities, if any, of you and DentalEZ, and the dispute will not be consolidated with any other matters or joined with any other cases or parties. The arbitrator shall have the authority to grant motions dispositive of all or part of any claim. The arbitrator shall have the authority to award monetary damages and to grant any non-monetary remedy or relief available to an individual under applicable law, the Arbitration Rules, and the Terms. The arbitrator shall issue a written award and statement of decision describing the essential findings and conclusions on which the award is based, including the calculation of any damages awarded. The arbitrator has the same authority to award relief on an individual basis that a judge in a court of law would have. The award of the arbitrator is final and binding upon you and Aeras.

E. Waiver of Class Actions.

You waive any right to pursue an action on a class-wide basis against us and may only resolve disputes with us on an individual basis and may not bring a claim against us as a plaintiff or a class member in a class, consolidated, or representative action. Class arbitrations, class actions, private attorney general actions, and consolidation with other arbitrations are not allowed.

F. Waiver of Jury Trial.

EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY THAT MAY ARISE UNDER THE TERMS IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES AND THEREFORE THE PARTIES HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVE ANY RIGHT THEY MAY HAVE (INCLUDING ANY CONSTITUTIONAL AND STATUTORY RIGHTS) TO GO TO COURT AND HAVE A TRIAL IN FRONT OF A JUDGE OR A JURY, instead electing that all claims and disputes arising in connection with these Terms shall be resolved by arbitration. Arbitration procedures are typically more limited, more efficient and less costly than rules applicable in court. In the event any litigation should arise between you and DentalEZ in any state or federal court in a suit to vacate or enforce an arbitration award or otherwise, YOU AND DENTALEZ WAIVE ALL RIGHTS TO A JURY TRIAL, instead electing that the dispute be resolved by a judge alone.

YOU ACKNOWLEDGE THAT YOU HAVE BEEN ADVISED THAT YOU MAY CONSULT WITH AN ATTORNEY IN DECIDING TO ACCEPT THIS AGREEMENT TO ARBITRATE.

G. Choice of Law/Forum Selection.

In any circumstances where the Agreement to Arbitrate Disputes permits the parties to litigate in court, these Terms shall be governed by and construed in accordance with the laws of the State of Pennsylvania, excluding its conflict of law rules. You further expressly consent and agree to submit to the exclusive jurisdiction and venue of a court of competent jurisdiction located in Pennsylvania.

1. Disclaimer of Representations and Warranties.

YOUR USE OF THE SERVICE AND ALL CONTENT FORMING PART OF OR RELATED TO THE SERVICE INCLUDING ANY OTHER SERVICES, ARE AT YOUR SOLE RESPONSIBILITY AND RISK. THE SERVICE IS PROVIDED TO YOU ON AN "AS IS," "AS AVAILABLE," AND "WITH ALL FAULTS" BASIS. TO THE MAXIMUM EXTENT PERMITTED BY LAW, NEITHER DENTALEZ NOR ANY OF ITS OFFICERS, DIRECTORS, MANAGERS, EMPLOYEES OR AGENTS (COLLECTIVELY, THE "DENTALEZ PARTIES") MAKE, AND THE DENTALEZ PARTIES EXPRESSLY DISCLAIM, ANY REPRESENTATIONS, WARRANTIES, CONDITIONS OR ENDORSEMENTS OF ANY KIND WHATSOEVER WITH RESPECT TO THE SERVICE, THE CONTENT OR OTHER SERVICES, WHETHER EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, OR ARISING FROM COURSE OF DEALING, COURSE OF PERFORMANCE OR USAGE OF TRADE, INCLUDING THE

IMPLIED WARRANTIES OR CONDITIONS OF TITLE, NONINFRINGEMENT, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, COMPLETENESS, QUIET ENJOYMENT, FREEDOM FROM COMPUTER VIRUS AND THE RESULTS YOU MAY OBTAIN BY USING THE SERVICE. BY ACCESSING OR USING THE SERVICE YOU REPRESENT AND WARRANT THAT YOUR ACTIVITIES ARE LAWFUL IN EVERY JURISDICTION WHERE YOU ACCESS OR USE THE SERVICE.

2. Limitations of Our Liability.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL THE DENTALEZ PARTIES BE LIABLE TO YOU OR ANY THIRD PARTY ACTING ON YOUR BEHALF FOR ANY LOSS, DAMAGE OR INJURY OF ANY KIND INCLUDING ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, CONSEQUENTIAL OR PUNITIVE LOSSES OR DAMAGES, OR DAMAGES FOR SYSTEM FAILURE OR MALFUNCTION OR LOSS OF PROFITS, DATA, USE, BUSINESS OR GOOD-WILL, OR THE COST OF ANY SUBSTITUTE EQUIPMENT, FACILITIES OR SERVICES (EVEN IF DENTALEZ PARTIES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES), ARISING OUT OF OR IN CONNECTION WITH (A) THE SERVICE, (B) THESE TERMS OR (C) YOUR MISUSE OF THE SERVICE OR ANY CONTENT AVAILABLE ON OR THROUGH THE SERVICE. THE LIMITATIONS SET FORTH IN THIS SECTION SHALL APPLY REGARDLESS OF THE FORM OF ACTION, WHETHER THE ASSERTED LIABILITY OR DAMAGES ARE BASED ON CONTRACT, INDEMNIFICATION, TORT, STRICT LIABILITY, STATUTE OR ANY OTHER LEGAL OR EQUITABLE THEORY. IF UNDER ANY CIRCUMSTANCES THE AERAS PARTIES ARE FOUND LIABLE TO YOU OR ANY EMPLOYEE, OWNER, DIRECTOR, OFFICER, CONTRACTOR OR THIRD PARTY ACTING ON YOUR BEHALF AND IF THE DISCLAIMER OF DAMAGES HEREUNDER IS NOT ENFORCED FOR ANY REASON, THE DENTALEZ PARTIES' MAXIMUM AGGREGATE LIABILITY FROM ALL CLAIMS UNDER OR RELATED TO THESE TERMS IS LIMITED TO ONE HUNDRED DOLLARS ($100). TO THE EXTENT ANY APPLICABLE LAW DOES NOT ALLOW THE EXCLUSION OR THE LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE DENTALEZ PARTIES' LIABILITY WILL BE LIMITED TO THE FURTHEST EXTENT PERMITTED BY LAW.

NOTWITHSTANDING THE FOREGOING, THESE DISCLAIMERS HEREIN DO NOT EXCLUDE ANY PRODUCT LIABILITY CLAIMS, STATUTORY CONSUMER RIGHTS, DAMAGES ASSOCIATED WITH PERSONAL INJURY OR RESULTING FROM AERAS INTENTIONAL MISCONDUCT, RECKLESSNESS, FRAUD, OR GROSS NEGLIGENCE.

3. Indemnification.

You agree to defend, indemnify and hold harmless the DentalEZ Parties from and against any and all claims, liabilities, damages, losses, costs and expenses (including, reasonable attorneys' fees and costs) arising out of or in connection with any of the following:

(i) your breach or alleged breach of these Terms;

(ii) your Submissions;

(iii) your misuse of the Service;

(iv) your violation of any laws, rules, regulations, codes, statutes, ordinances or orders of any governmental or quasi-governmental authorities;

(v) your violation of the rights of any third party, including any intellectual property right, publicity, confidentiality, property or privacy right;

(vi) your use of Other Services; or

(vii) any misrepresentation made by you. DentalEZ reserves the right to assume, at your expense, the exclusive defense and control of any matter subject to indemnification by you. You agree to cooperate with DentalEZ' defense of any claim. You will not in any event settle any claim without the prior written consent of DentalEZ.

This provision does not require you to indemnify us for any unconscionable commercial practice by us or for our fraud, deception, false promise, misrepresentation or concealment, suppression or omission of any material fact in connection with the Service.

4. Waiver of Injunctive or other Equitable Relief.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, YOU AGREE THAT YOU WILL NOT BE PERMITTED TO OBTAIN AN INJUNCTION OR OTHER EQUITABLE RELIEF OF ANY KIND, SUCH AS ANY COURT OR OTHER

ACTION THAT MAY INTERFERE WITH OR PREVENT THE DEVELOPMENT OR EXPLOITATION OF ANY WEBSITE, APPLICATION, CONTENT, SUBMISSIONS, PRODUCT, SERVICE, OR INTELLECTUAL PROPERTY OWNED, LICENSED, USED OR CONTROLLED BY DENTALEZ OR A LICENSOR OF DENTALEZ.

1. Updates to Terms.

We reserve the right, at any time in our sole discretion, to modify or replace any part of the Terms or Privacy Policy, without prior notice. You agree that we may notify you of any updated Terms or Privacy Policy by posting them on the Service so that they are accessible via a link from the home page, and/or to send you an e-mail to the last e-mail address you provided to us. All such changes are effective immediately when we post them, or such later date as may be specified in the notice of updated Terms or Privacy Policy. If you object to any such changes, your sole recourse is to cease using the Service. Your continued use of the Service will be deemed irrevocable acceptance of any such revisions. Before you continue, you should print and/or save a local copy of the Terms and our Privacy Policy for your records.

2. General Provisions.

A. You May Cancel Your Account.

You may cancel your Account at any time through the Service or by emailing DentalEZIOT@DentalEZ.com or by contacting your dealer directly. These are the only ways to cancel your Account. Phone requests to cancel your Account will not be accepted. You acknowledge that cancelling your Account will not prevent your equipment from collecting or sending certain equipment performance data to us or dealers sharing information with us in accordance with our Privacy Policy.

B. Data Deletion at Cancellation or Termination.

DentalEZ is under no obligation to store any data or information you submit, upload, or make available to us through the Service and DentalEZ reserves the right to delete your Account and information immediately upon cancellation or termination.

C. Consent or Approval.

No DentalEZ consent or approval may be deemed to have been granted by DentalEZ without being in writing and signed by an officer of DentalEZ.

D. Survival.

The provisions of the Terms, which by their nature should survive termination of your use of the Service, including sections on Service Use (except for the limited license), Unsolicited Submissions, Copyright Infringement, Subscriptions and Products, Customer Support, Other Services, Service Features, Agreement to Arbitrate Disputes and Choice of Law, Disclaimer of Representations and Warranties, Limitations of Our Liability, Indemnification, Waiver of Injunctive or Other Equitable Relief, Updates to Terms, and General Provisions, will survive.

E. Severability; Interpretation; Assignment.

If any provision of the Terms, including these Online Terms or any applicable Additional Terms, is for any reason deemed invalid, unlawful, void, or unenforceable, then that provision will be deemed severable from the Terms, and the invalidity of the provision will not affect the validity or enforceability of the remainder of the Terms. You hereby waive any applicable statutory and common law that may permit a contract to be construed against its drafter. The summaries of provisions and section headings are provided for convenience only and shall not limit the full Terms. DentalEZ may assign its rights and obligations under the Terms, in whole or in part, to any party at any time without any notice. The Terms may not be assigned by you, and you may not delegate your duties under them, without the prior written consent of an officer of DentalEZ.

F. Complete Agreement; No Waiver.

The Terms and the Privacy Policy reflect our complete agreement regarding the Service and supersede any prior agreements, representations, warranties, assurances or discussion related to the Service. Except as expressly set forth in the Terms, (i) no failure or delay by you or DentalEZ in exercising any of rights, powers, or remedies under will operate as a waiver of that or any other right, power, or remedy, and (ii) no waiver or modification of any term of the will be effective unless in writing and signed by the party against whom the waiver or modification is sought to be enforced.

G. International Issues.

DentalEZ controls and operates the Service from the U.S., and DentalEZ makes no representation that the Service is appropriate or available for use beyond the U.S. You agree that the United Nations Convention on Contracts for the International Sale of Goods does not apply to the Terms or to any sale of goods carried out as a result of your use of the Service. Software related to or made available by the Service may be subject to export controls of the U.S., and, except as authorized by law, you agree and warrant not to export or re-export the software to any county, or to any person, entity, or end-user subject to U.S. export controls or sanctions.

H. Investigations; Cooperation with Law Enforcement.

DentalEZ reserves the right to investigate and prosecute any suspected breaches of the Terms or the Service. DentalEZ may disclose any information as necessary to satisfy any law, regulation, legal process, or governmental request.

I. California Consumer Rights and Notices.

Residents of California are entitled to the following specific consumer rights information: you may contact the Complaint Assistance Unit of the Division of Consumer Services of the Department of Consumer Affairs by mail at: 1625 North Market Blvd., Suite N 112, Sacramento, California 95834, or by telephone at (916) 445-1254. Their website is located at: http://www.dca.ca.gov.

3. Contact Us.

If you have any questions or comments about the Terms, please contact us:

By email:

DentalEZIOT@DentalEZ.com

By mail:

Attention: Privacy Officer
310 Lindenwood Drive, Suite 100
Malvern, PA 19355

DENTALEZ

DENTALEZ Alabama, Inc.
2500 Highway 31 South
Bay Minette, AL 36507

T: 866-DTE-INFO

DENTALEZ.COM

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