RAMVAC®
Bison® Dry Vacuum
Preinstallation Guide



Doctor:	_____
Address:	_____
Phone No.:	_____
Dealer:	_____
Address:	_____

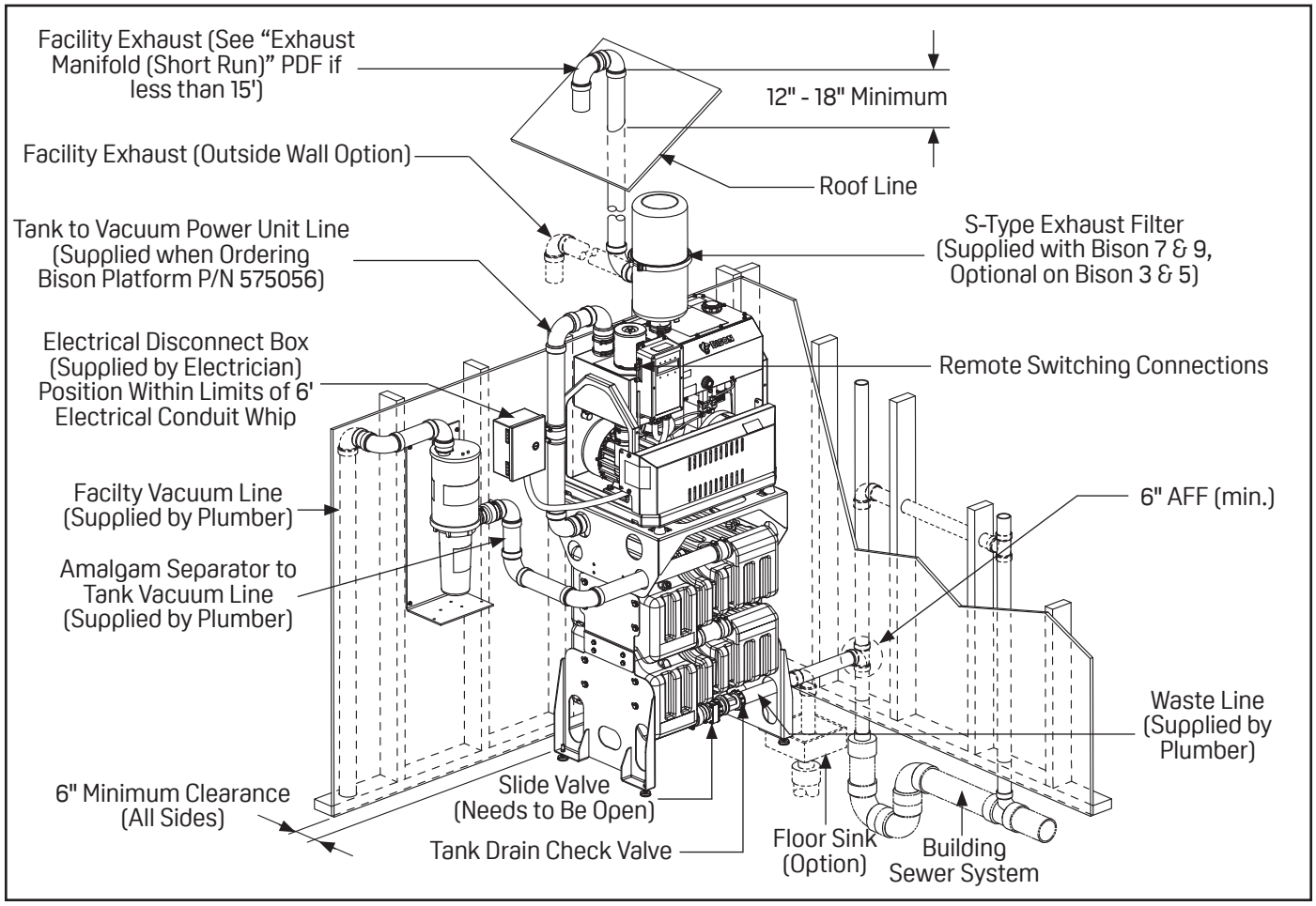
Check ☑ Bison Model Being Installed:	☐ Bison 3 ☐ Bison 5 ☐ Bison 7 ☐ Bison 9 ATTENTION: It is recommended that this equipment be installed by a licensed electrical/plumbing contractor only. **All installations must conform to local and national codes.**

NOTICE

This information is not intended to replace the information found in the **User Manual**. Refer to **User Manual** for full installation, safety and precautions.

DentalEZ
INTEGRATED SOLUTIONS

Equipment Room Layout (Bison Vacuum with 30-Gallon Otter Tank Stacked)



Plumbing

Facility Exhaust Lines

- 2" PVC schedule 80 or CPVC, or metal (not tar coated) with DWV fittings or equivalent. (Option: PVC schedule 40 or equivalent after first 10' of run).
- Slope: All horizontal lines toward the vacuum unit, a standart plumbing slope.
- Minimum exhaust length=15' from RAMVAC pump to outside end. See **"Exhaust Manifold (Short Run)"** PDF if less than 15').
- Run dedicated exhaust line for each RAMVAC unit installed.
- Do not connect to plumbing vents.
- Lines must be installed to prevent condensation.
- Turn outside end down toward ground and screen to prevent entry of water, debris and creatures. Locate to prevent exhaust from entering building.

Facility Vacuum Lines from Operatories

- 2" (or larger) PVC schedule 40 with DWV fittings or equivalent.
- Minimum slope 1/4" per 10'.

Tank to Vacuum Power Unit Line & Amalgam Separator to Tank Vacuum Line

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

Tank Drain Line

Waste pipe, slide valve and drain check valve:

- 1½" PVC schedule 40 with DWV fittings.
- Minimum slope 1/4" per 10'.
- Use only RAMVAC supplied 1½" drain check valve.
- Drain into building sewer system.

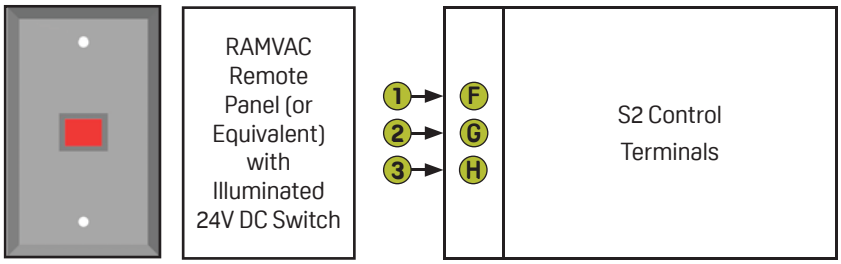
Electrical

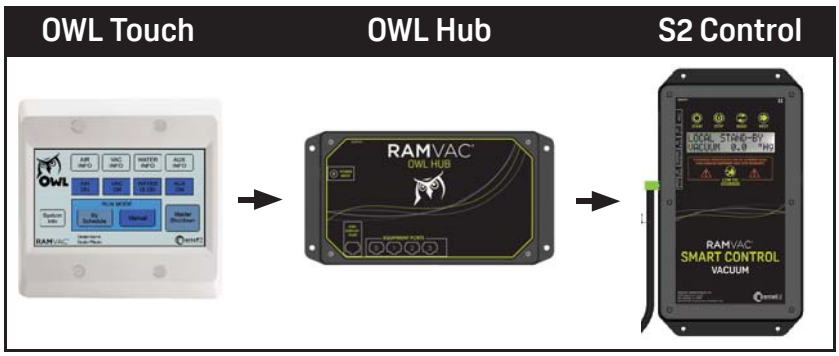
High Voltage

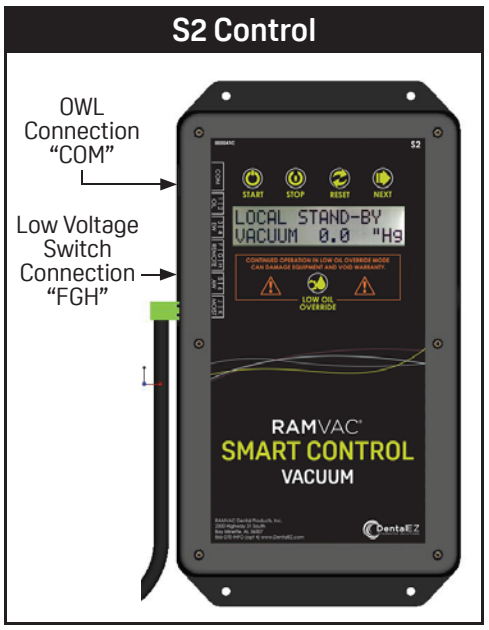
- Install a dedicated electrical circuit of sufficient capacity (see **Specifications & Site Requirements** table).
- Any means provided to isolate this device from the supply mains shall isolate all poles simultaneously. The disconnection means and overcurrent protection are to be provided by the installer. This device should always be attached to a dedicated circuit with appropriate wiring and circuit protection.

Low-Voltage Remote Switching (Recommended)

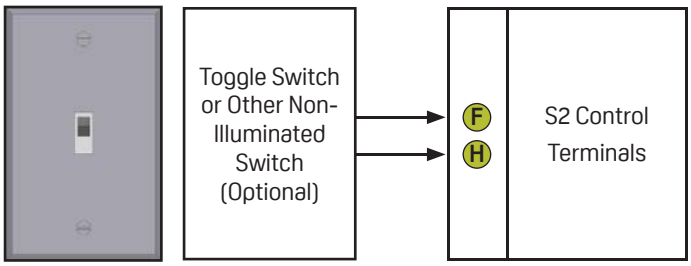
- Maximum wire length for low-voltage, 18-gauge wire is 500 feet.
- OWL to C2 (Smart Control) connection must be made with CAT 6 shielded cable using RJ45 connectors (up to 300 feet).

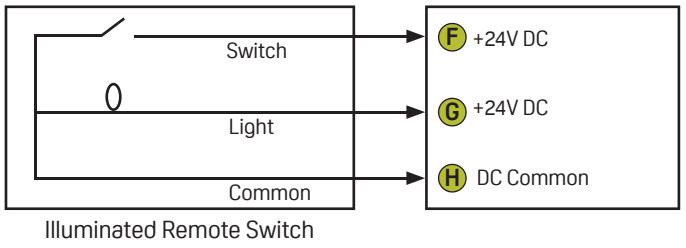






Low-Voltage Remote Switching (Alternative)





Illuminated Remote Switch

Placement

- Ventilation required for room to remain between 32°F to 104°F (0°C to 40°C). Additional forced air and HVAC must be used if ambient temperatures do not fall into this range.
- Protect from water; controls and motor are NOT waterproof.
- Allow 6" minimum clearance on all sides for all units.
- If unit is placed in an area adjacent to office space, sound eliminating techniques should be considered for the unit.

Specifications & Site Requirements				
Model	Bison 3	Bison 5	Bison 7	Bison 9
Maximum Number of Users	5	7	10	12
BTU/HR (Heat Released to Room)	2,673	2,673	2,673	4,454
Tank Size (Gallons)	15	15	15	30
Sound Levels (dBA Min/Max)	74	75	77	79
Operating Temperature (Min/Max)	32°F/104°F			
Operating Relative Humidity Range	0-95%, No Condensing Moisture			
Shipping/Transport Temperature (Min/Max)	-20°F/165°F			
Operating Atmospheric Pressure Range	63-105 kPa			

Electrical Specifications								
Model	**Motor**				**THHN Wire Size (Gauge)**		**Protection**	
	Hp (kW)	**Phase**	**Voltage**	**Max Amps**	**50 ft**	**100 ft**	**Breaker (Amps)**	**Fusetron**
Bison 3, 5, 7 60 Hz	3.0 (2.2)	1	230	16.0	12	**12**	20	FRN 25
		3	230	8.4	12	12	15	FRN 12
			460	4.2	12	12	15	FRN 5
Bison 9 60 Hz	5.0 (3.7)	3	230	13.2	12	12	20	FRN 25
			460	6.6	12	12	15	FRN 10

Product Dimensions	30-Gallon Otter Tank	Bison 3 Bison 5	Bison/30-Gallon Otter Tank Stacked	Bison 7 Bison 9	50-Gallon Cylindrical Tank
Nominal Width	29" (737 mm)	26" (660 mm)	32" (813 mm)	26" (660 mm)	26" (559 mm)
Nominal Depth	19" (533 mm)	19" (483 mm)	21" (533 mm)	22" (559 mm)	26" (559 mm)
Nominal Height	36" (914 mm)	30" (762 mm)*	70" (1,778 mm)*	30" (762 mm)*	62" (1,575 mm)
Drain Valve Centerline to Floor	8" (203 mm)	N/A	8" (203 mm)	N/A	5" (127 mm)

*For S-type exhaust filters, add 26" to height of power units.

ETL CLASSIFIED
Intertek
4007136

Conforms to:
ANSI/AAMI STD ES60601
Certified to:
CAN/CSA STD C22.2 NO. 60601-1

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