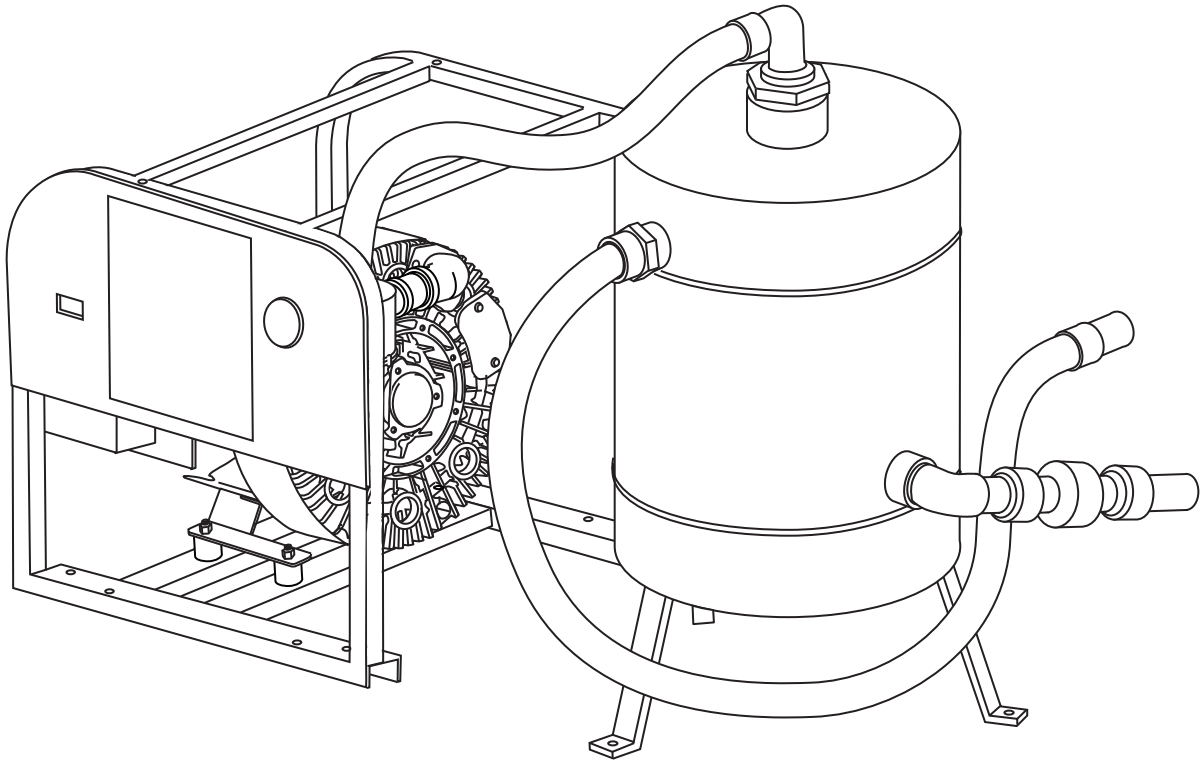
TECHWEST INC



Tech West ECOVac

Pre-Installation Guide

All installations must conform to local codes.

Revised 6/16

Junction Box Installation

Box Mounted Control Panel Diagram

A. Mount a three gang junction box to a solid wall stud. It should be placed so that it's front surface is set back 1/2" to 5/8".

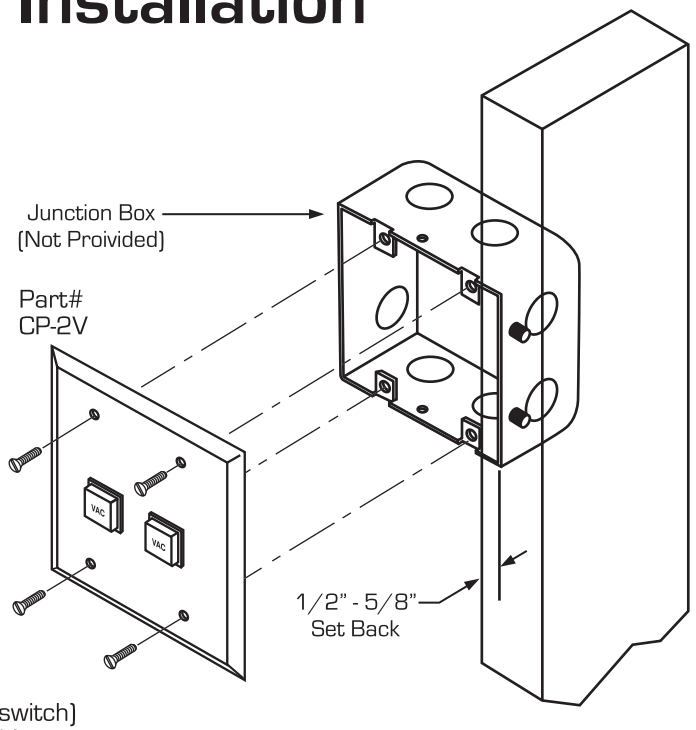
B. Run one 18-3 bell wire from each piece of equipment up to the installed junction box.

C. Cut and install sheet rock.

D. Connectors are provided to complete the wiring of the control panel by connecting wires to corresponding colored wires from the low voltage contactor box(es).

E. Position the panel, then insert and tighten screws.

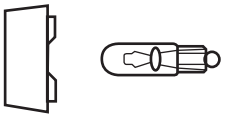
F. 1 & 2 switch panels use 2 switch mud ring box.
3 or more switch panels use 3 switch mud ring box.



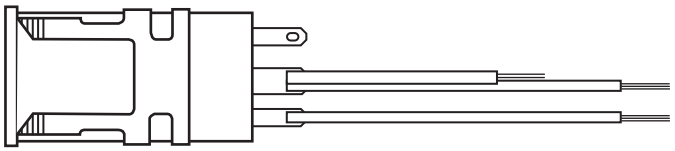
Switch Assembly

Part#
CPLV-100 (vacuum lense)
CPLA-100 (air lense)
CPLH-100 (water lense)

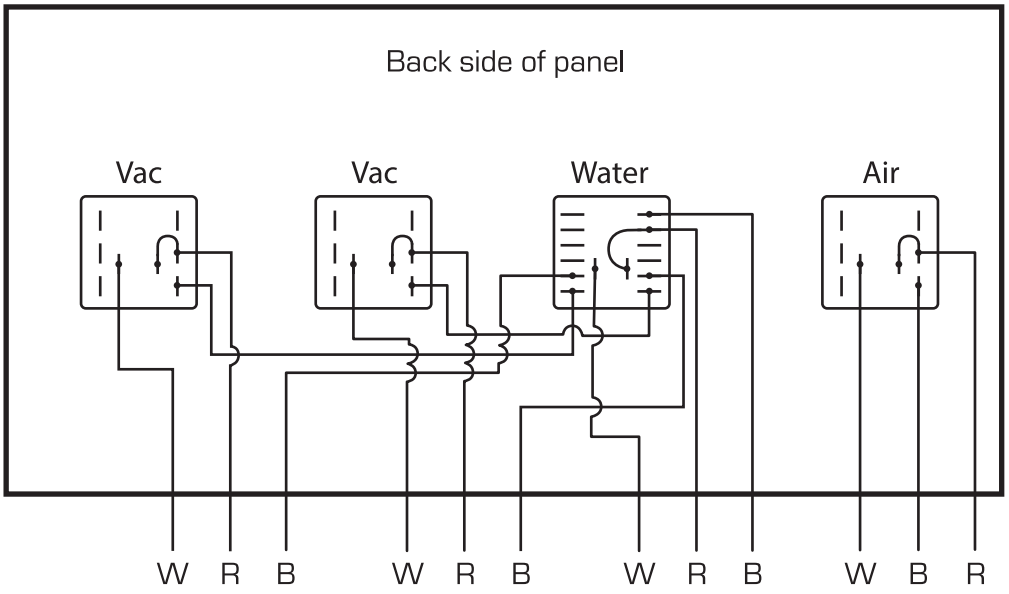
Part#
CPB-100



Part#
CPSV-100 (vacuum switch)
CPSA-100 (air switch)
CPSH-100 (water switch)



Wiring Schematic (4 Switch Panel)



B = Blue
R = Red
W = White

In panels without a water switch, the vacuum switch(es) are wired using the same configuration as shown on the air switch above.

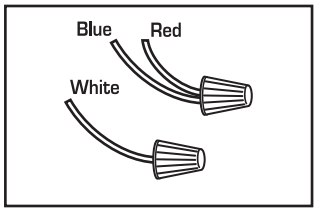
Electrical Connections

Important Information

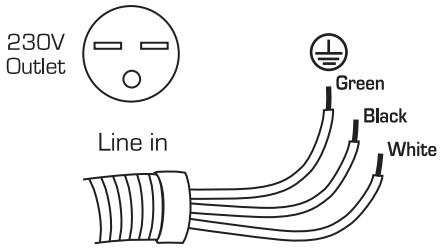
A. Use NEMA - 6 - 15P outlet for 230 V Connection.

B. If hard wiring system, cut plug off and connect black white and green wires to incoming power wires

Connection without 24V switch



24 Volt panel switch connections on top of electrical box

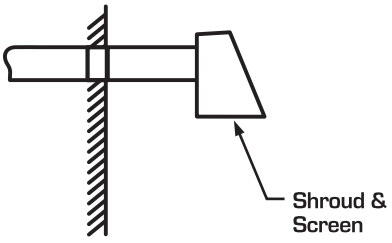


Ventilation Requirements

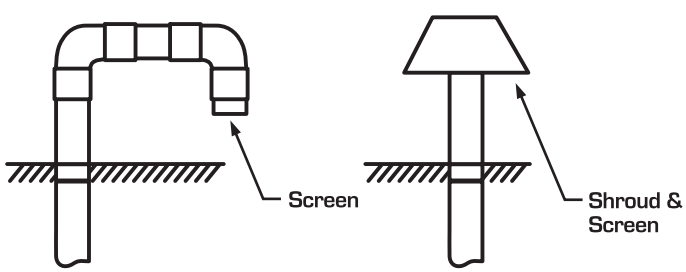
Equipment Room Temperature
The Tech West Inc. equipment must be used in an environment that is temperature controlled. Room temperature must remain between 40 and 105 degrees Fahrenheit. Adequate forced ventilation must be provided across the equipment by placing an adequate exhaust fan opposite an equivalent air intake vent. The fan should be higher than the associated intake vent.

Exhaust Vent Protection
If the exhaust piping is venting to the outside of the building, precautions must be taken to protect the equipment room from weather elements and animal intrusion. This can be accomplished by using one of the three methods shown below.

Vent must be 10' or more from a compressor intake, window or door.



Wall mounted outside vent protection

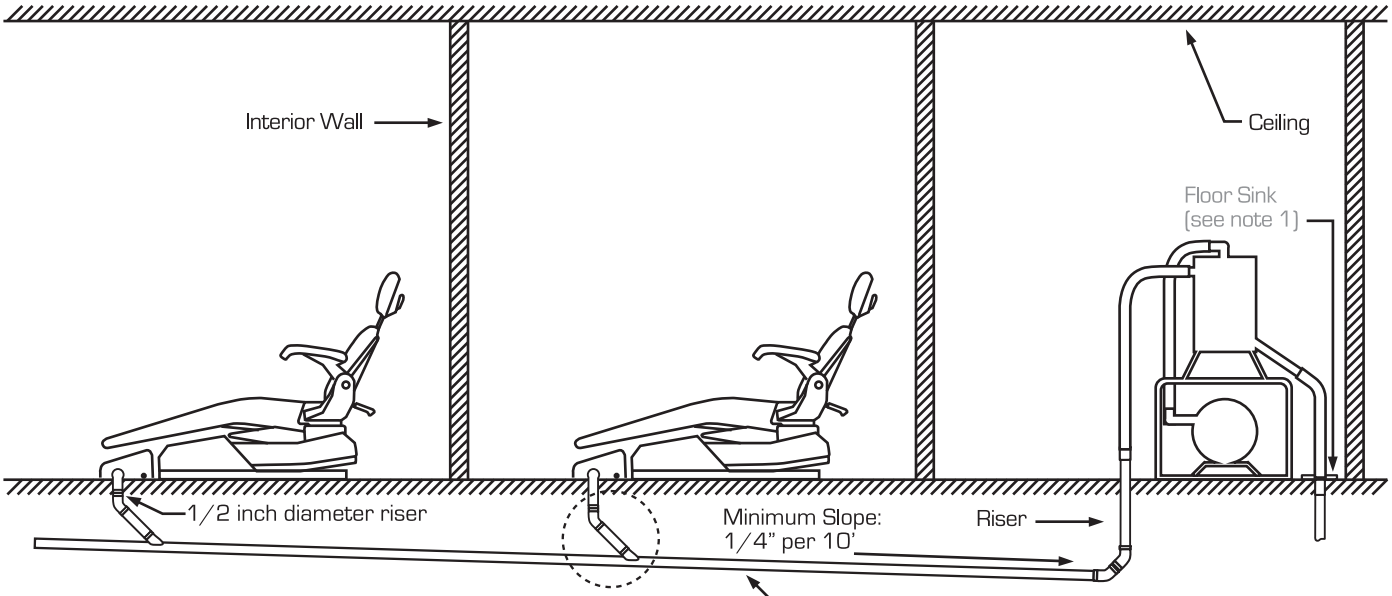


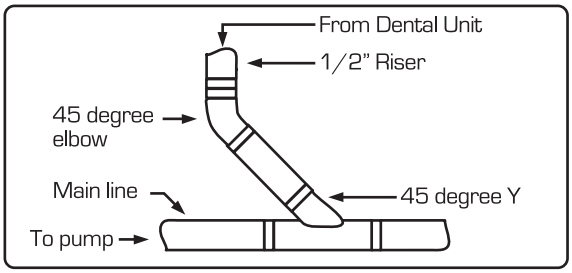
Roof mounted outside vent protection

Make sure to use the correct pipe type for associated system

Plumbing Installation

Sub Floor Installation: The sub-floor plumbing layout shown below is the recommended layout for Tech West Inc. system installations and should be used whenever possible.





Riser to Main Line Detail

Notes:

1 See optional drain connections shown below

2 8 foot maximum height from main line to tank

3 Consult dental unit manufacturer's guidelines for correct reduced size and height of termination of vacuum line inside junction box.

4 Limit branches. Orient main line under junction box or cabinet

5 When main line is 1 1/2" ID or larger, use 45 degree Y's and elbows only.

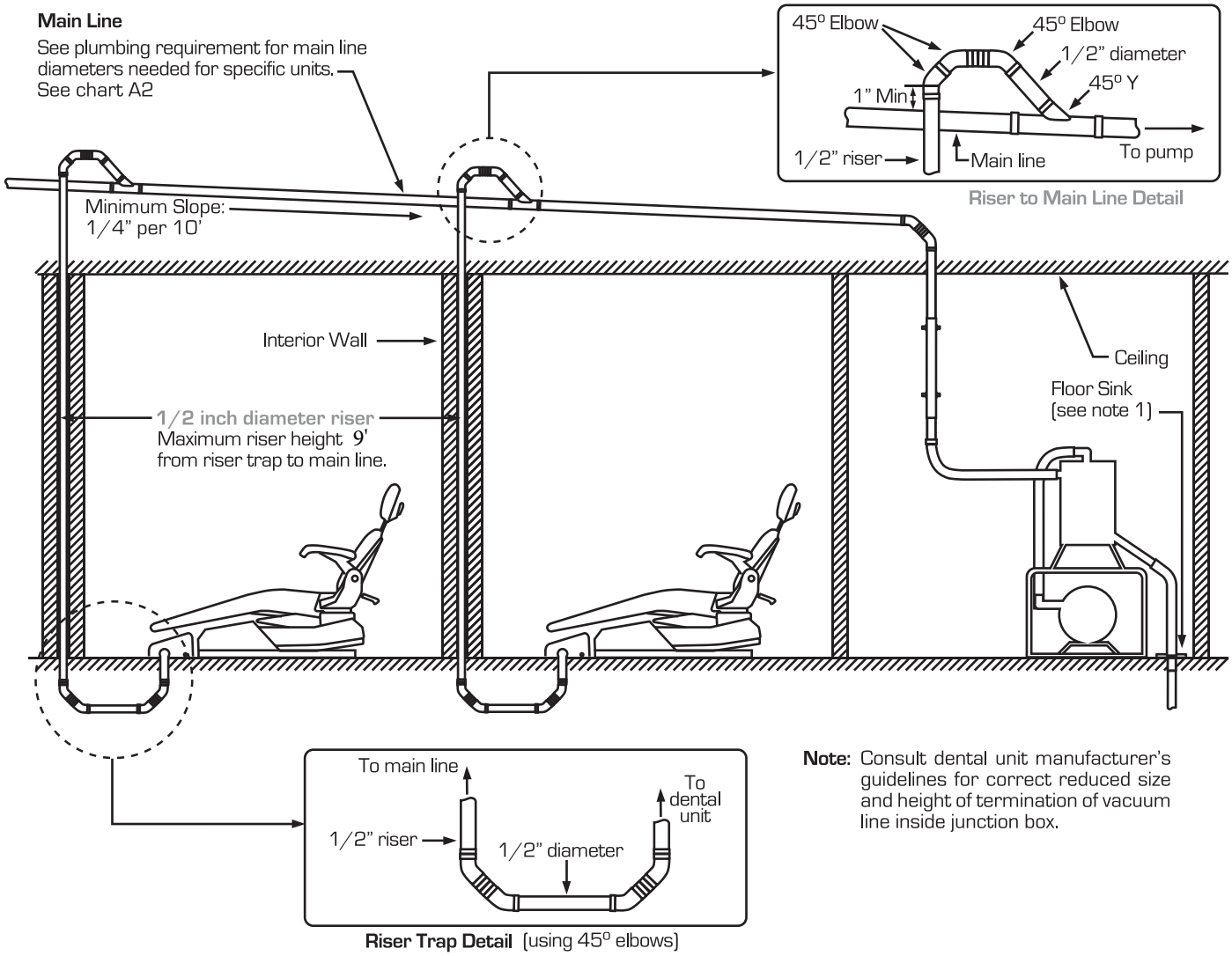
6 Long radium 90 degree elbows can be used as alternates to 45 degree elbows.

7 A total of 8 feet of 1 1/4 inch hose is supplied with Tech West Inc. units. This hose must be shared between inlet and drain.

All installations must conform to local codes

Plumbing Installation

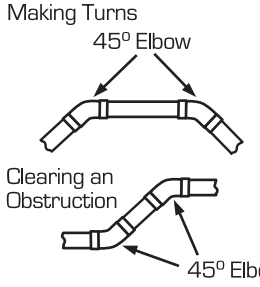
Overhead Installation: The overhead plumbing layout shown below is the alternate layout for Tech West Inc.'s system installation and should be used only when unable to use the sub-floor plumbing layout.



Note: Consult dental unit manufacturer's guidelines for correct reduced size and height of termination of vacuum line inside junction box.

Connection Details All Installations

Main Line

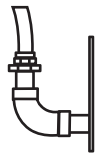


A. Use only 45° elbows or sweeping (sanitary) 90° elbows to make turns in main line.

B. If piping is diverted to clear an obstruction, **DO NOT MAKE A TRAP**.

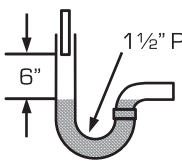
Drain Options

Direct connection to vented drain. No traps before vent.



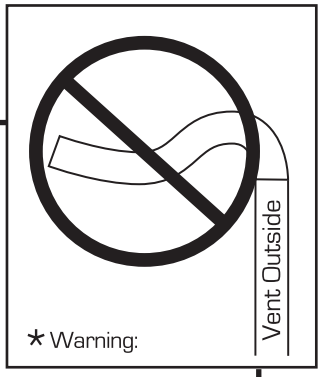
Closed Vented Drain

Indirect connection (Air gap) with a P-trap.



Open Drain Pipe

Target Room Layout



Important Information

A. Safty First -
Always disconnect main power supply before installation.

B. Wire or Plug in -
Wire or plug in outlet to building power supply. (see chart A-1 below) NOTE: Buck boost transformers (BT) are only requred when voltage drops below 208V or above 240V.

Outside Air Pipe

2-inch pipe for air intake.
Must be protected from rain and animals.

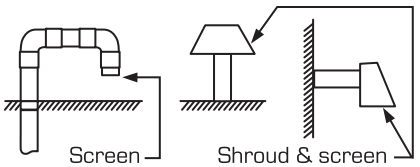


Chart A1

Model	Voltage	Breaker Amps	Plug type
VPD2S2	230 Volt	20 Amps	230 Hard wire / NEMA 6-15P
VPD4D2	230 Volt	2X20 Amps	230 Hard wire / NEMA 6-15P
VPD5S2	230 Volt	20 Amps	230 Hard wire / NEMA 6-15P
VPD10D2	230 Volt	2X20 Amps	230 Hard wire / NEMA 6-15P

Main Vacuum Line

Chart A2 **Vacuum Line Pipe Diameter**

Operatories	PVC sch 40	Copper
1	3/4"	3/4"
2	1"	1"
3	1 1/4"	1"
4	1 1/4"	1 1/4"
5	1 1/4"	1 1/2"
6	1 1/2"	1 1/2"
7	1 1/2"	1 1/2"
8	1 1/2"	1 1/2"
9	1 1/2"	2"
10	2"	2"
11	2"	2"
12	2"	2"

Exhaust Ventilation Connection

Exhaust needs to be vented outside with 2" flexible hose provided.
* Warning: Avoid any bends resuling in adownward slope.
Condensation could cause water to collect in vent pipe.
(See diagram abover)

Open floor sink - use 3/8" clear hose to exhaust drip leg.

Ambient Tempertures

H. Must not exceed 105°F Must remain above 41°F