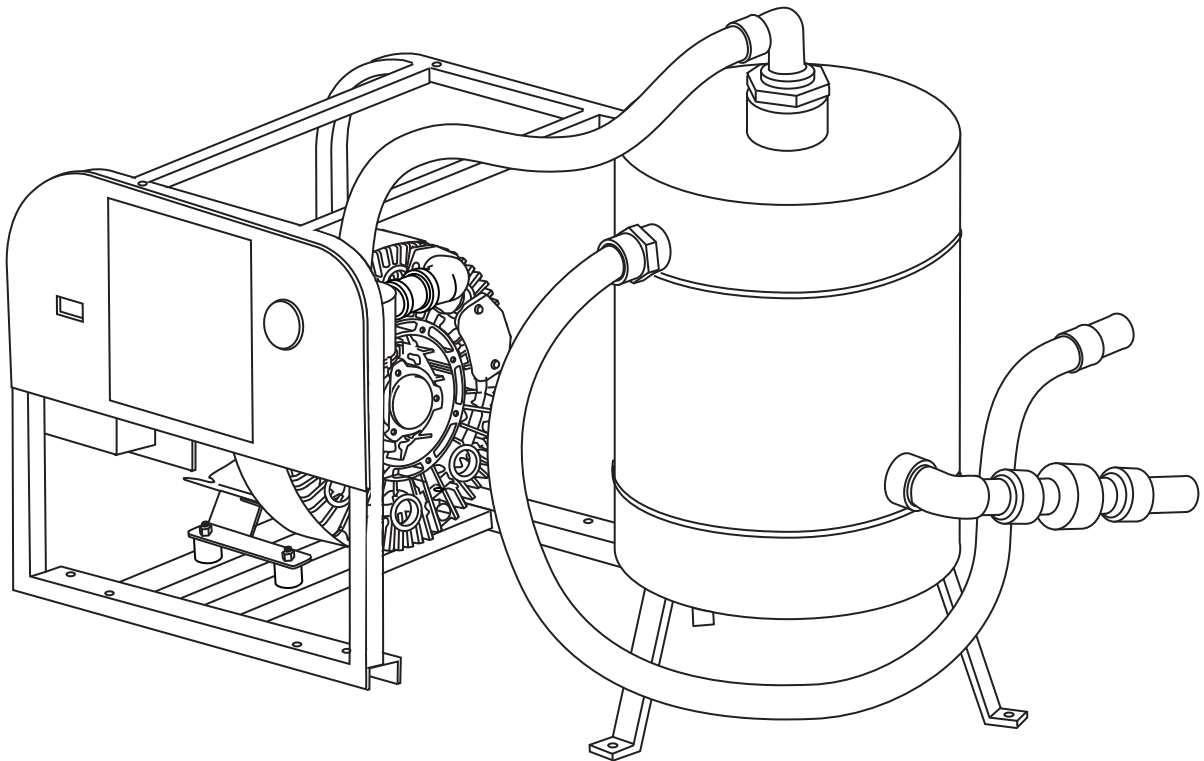




TECHWEST INC



Tech West ECOVac
Pre-Installation Guide

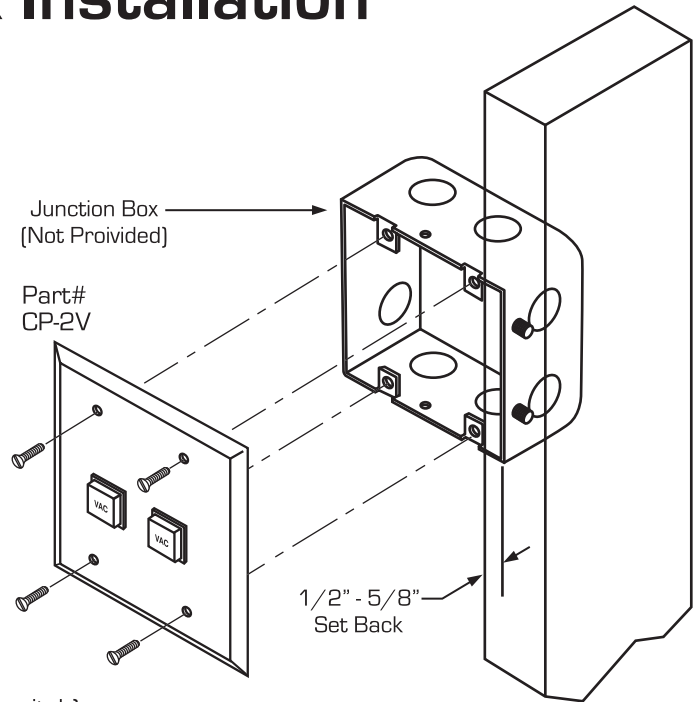
All installations must conform to local codes.

Revised 6/16

Junction Box Installation

Box Mounted Control Panel Diagram

- Mount a three gang junction box to a solid wall stud. It should be placed so that its front surface is set back 1/2" to 5/8".
- Run one 18-3 bell wire from each piece of equipment up to the installed junction box.
- Cut and install sheet rock.
- 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).
- Position the panel, then insert and tighten screws.
- 1 & 2 switch panels use 2 switch mud ring box.
3 or more switch panels use 3 switch mud ring box.

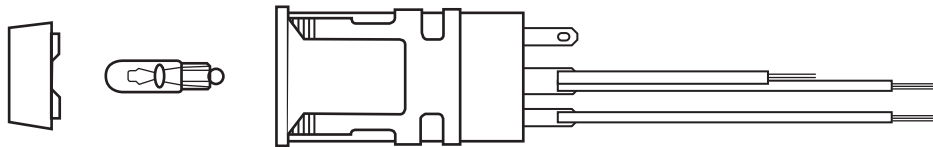


Switch Assembly

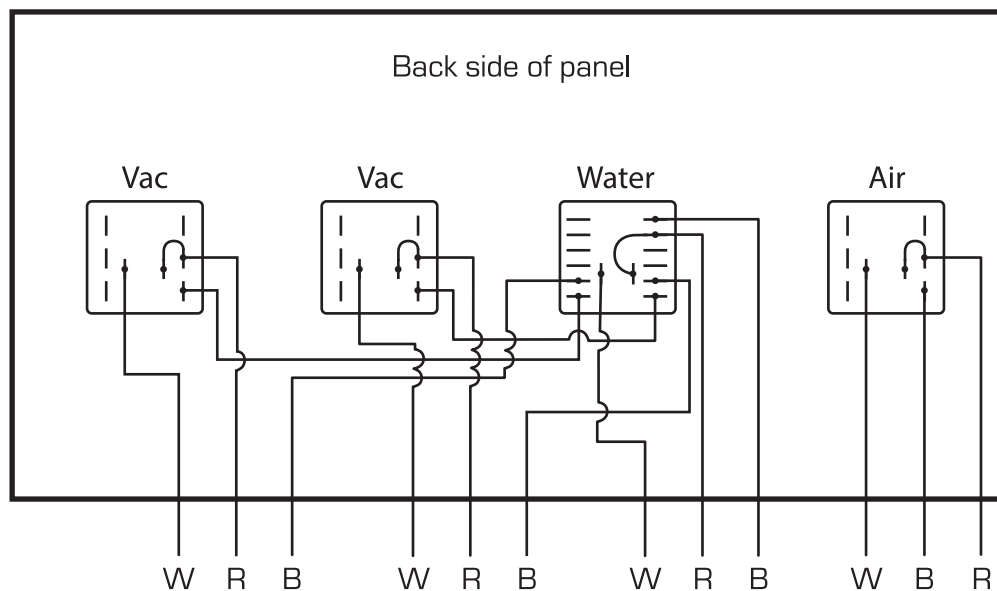
Part#
CPLV-100 (vacuum lense)
CPLA-100 (air lense)
CPLH-100 (water lense)

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

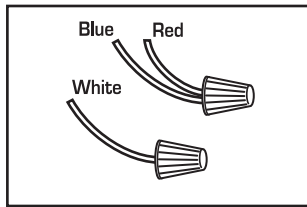
In panels without a water switch, the vacuum switch(es) are wired using the same configuration as shown on the air switch above.

Electrical Connections

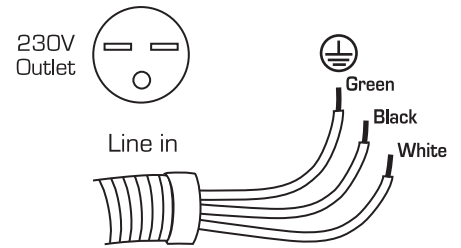
Important Information

- 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

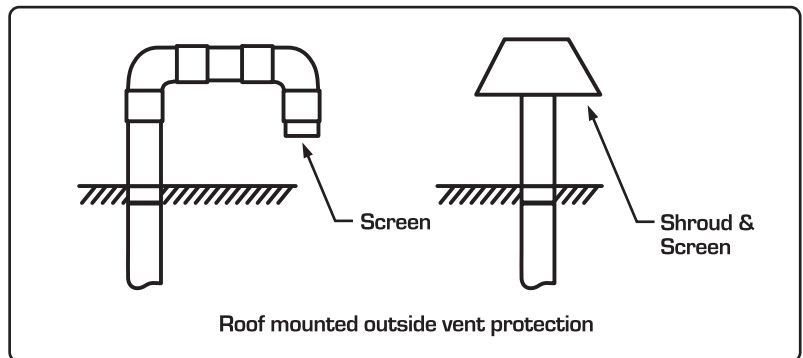
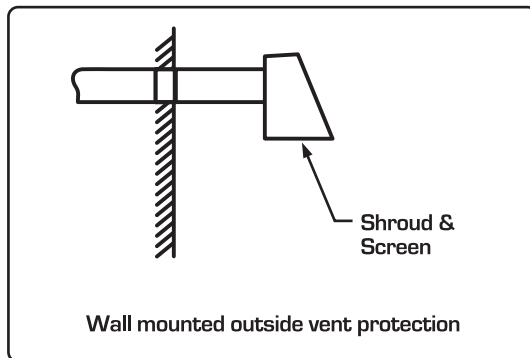
Equipment Room Temperature

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.

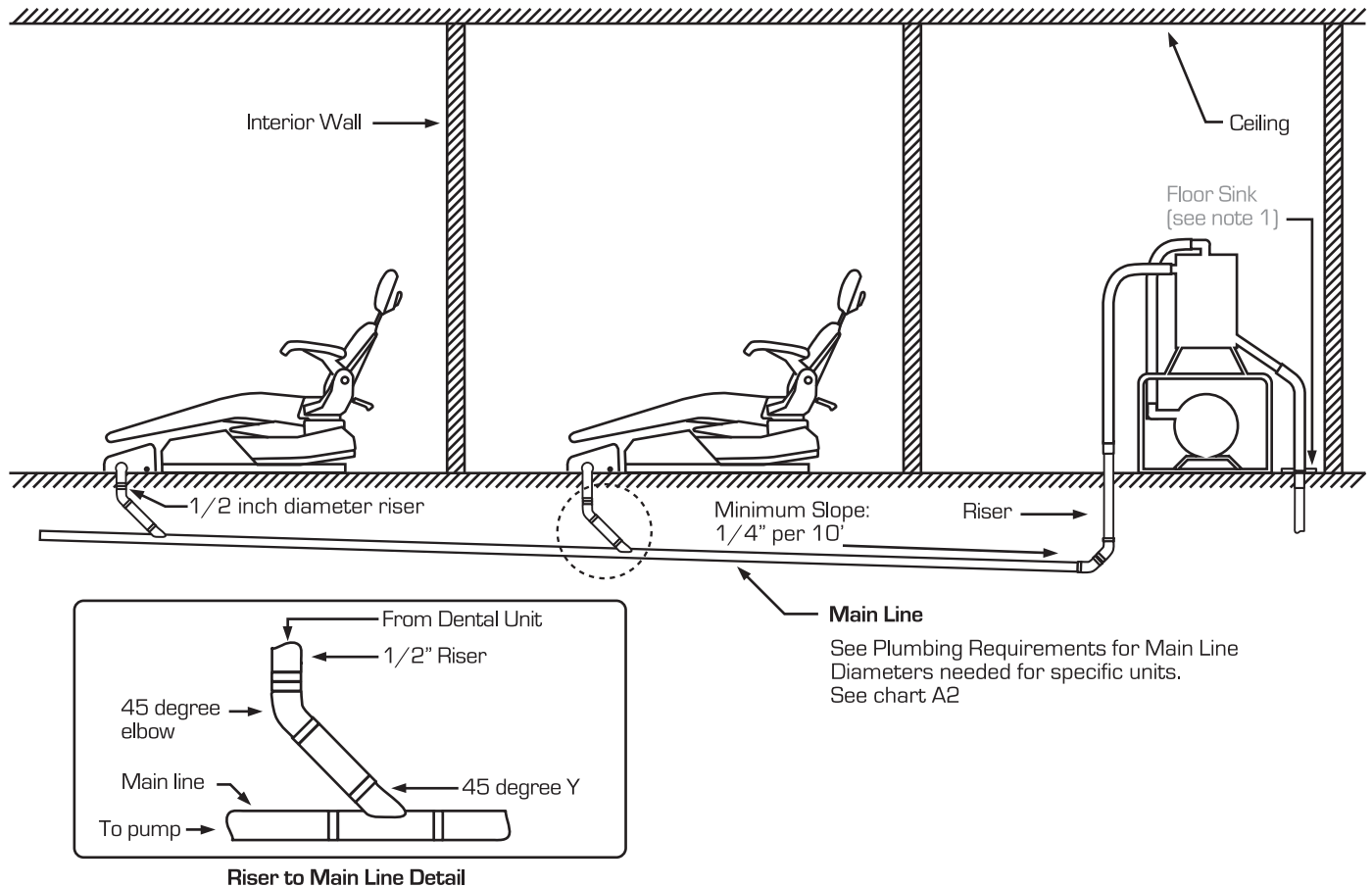
Vent must be 10' or more from a compressor intake, window or door.



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.



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 radius 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.

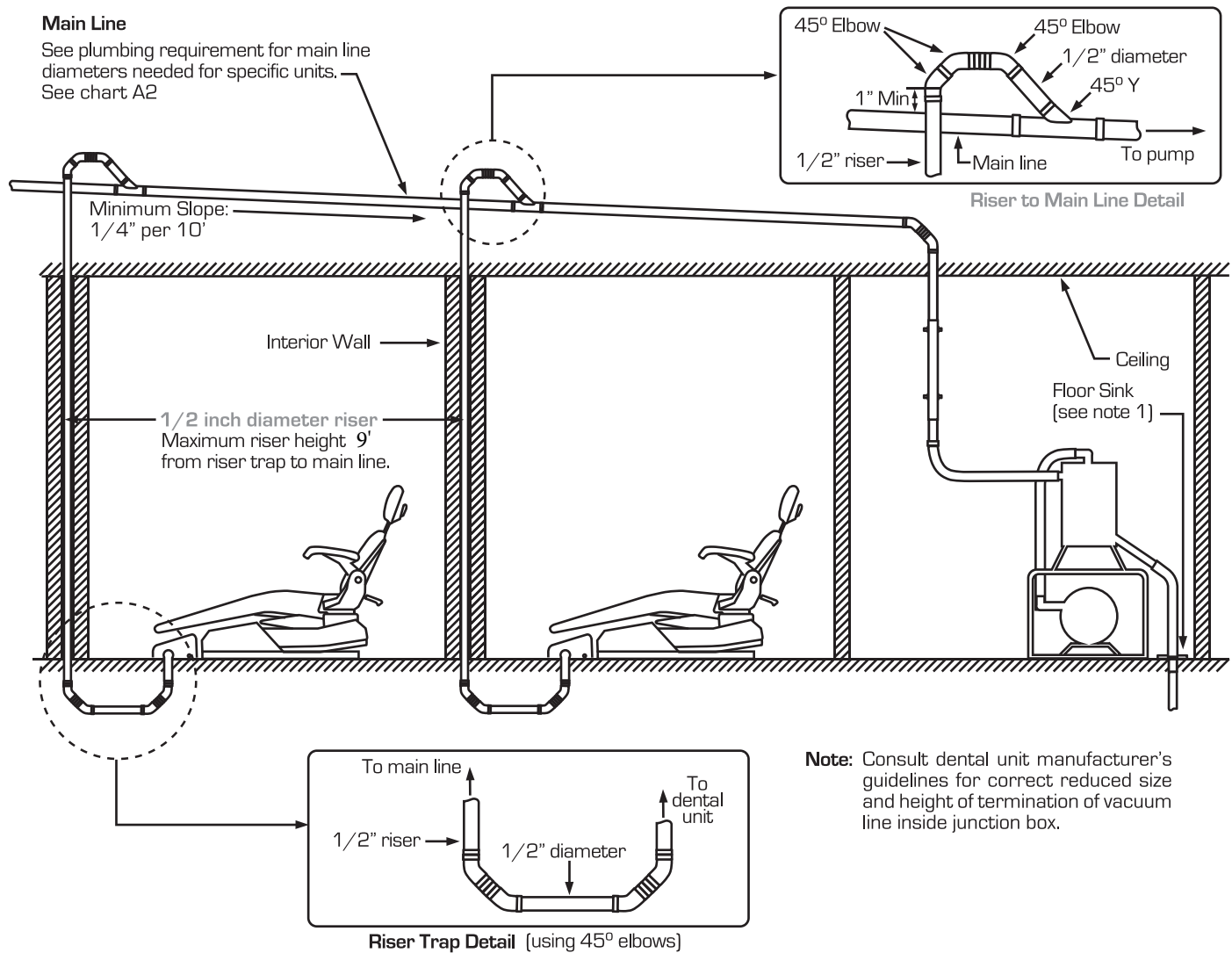
All installations must conform to local codes

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.

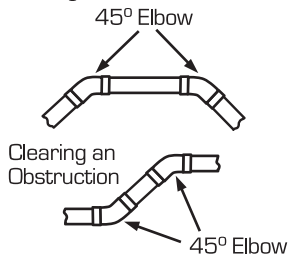
Main Line

See plumbing requirement for main line diameters needed for specific units.
See chart A2



Connection Details All Installations

Making Turns

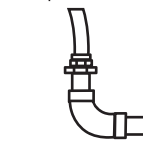


Main Line

- Use only 45° elbows or sweeping (sanitary) 90° elbows to make turns in main line.
- If piping is diverted to clear an obstruction, **DO NOT MAKE A TRAP.**

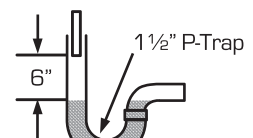
Drain Options

Direct connection to vented drain. No traps before vent.



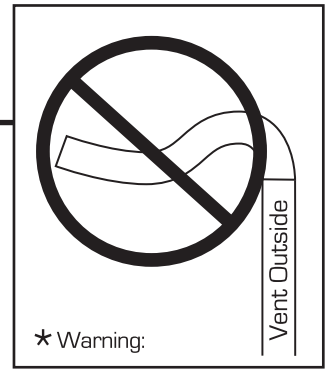
Closed Vented Drain

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



Open Drain Pipe

Target Room Layout



★ Warning:

Important Information

A. Safty First -

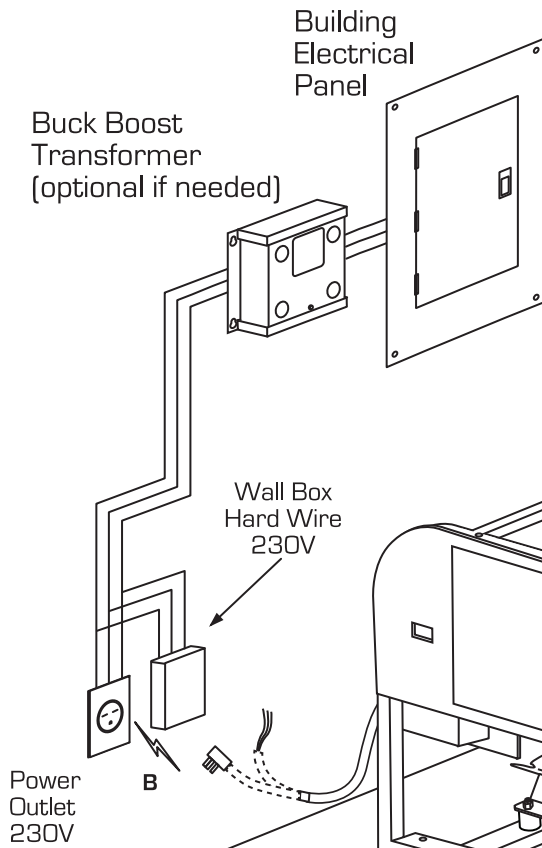
Always disconnect main power supply before installation.

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 required when voltage drops below 208V or above 240V.

Remote Switch

Place in desired, convenient location



Outside Air Pipe

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

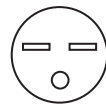
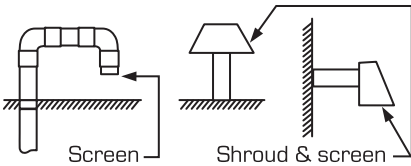


Chart A1

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

Exhaust Ventilation Connection

Exhaust needs to be vented outside with 2" flexible hose provided.

★ Warning: Avoid any bends resulting in adownward slope. Condensation could cause water to collect in vent pipe. (See diagram above)

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

Chart A2 Main Vacuum Line 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"

Ambient Tempertures

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