## Safety Information & Cautions

- Please read the user manual before operation.
- The ADT780–1K–EPUMP is designed to generate over 1,000 psi (70 bar). Please use caution.
- Before use, ensure outlet connections are secured tightly.
- Before making any connections ensure the unit is vented.
- During in use or shut off, do not stand in front of the vent port.
- Ensure there is room for ventilation around the unit to ensure proper airflow.
- Avoid use in dusty, wet, flammable, and explosive environments.
- Do not put the device under direct sunlight for a long time.

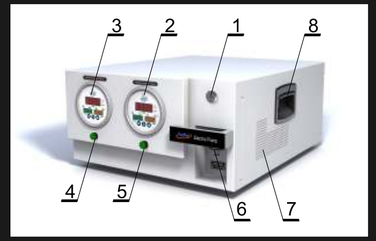
***Remark:***

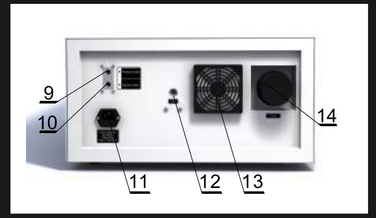
A: Additel has made a concerted effort to provide complete and current information for the proper use of the equipment. The product specifications and other information contained this manual are subject to change without notice.

B: Above pictures are just for reference.

**Additel Corporation, USA**
**2900 Saturn Street #B**
**Brea, CA 92821, USA**
**Phone: 714-998-6899**
**E-mail: service@additel.com**
**Website: www.additel.com**

## Configuration




1. **Power on–off**
2. **Vacuum control meter**
3. **Pressure control meter**
4. **Pressure control switch**
5. **Vacuum control switch**
6. **Liquid collector**
   (open the bottom screw to drain out contaminants)
7. **Cooling fan in take**
8. **Handle**
9. **Pressure outlet port**
   (1/8" BSP female)
10. **Vacuum outlet port**
    (1/8" BSP female)
11. **Power socket**
12. **Vent port**
    (venting will remove any liquid and dust)
13. **Cooling fan**
14. **Air filter**
    (Make pressure control when air inletting )
    (need to change periodically)

## Pressure set panel

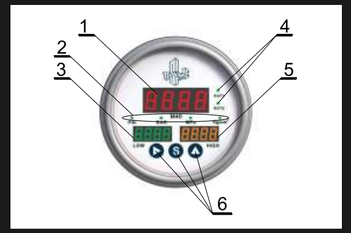



Figure 1-1 Pressure/vacuum meter's panel

1. **Current pressure value**
2. **Pressure unit**
   (push the button S change and select units)
3. **Lower pressure limit**
4. **Relay status indicator**
5. **Upper pressure limit**
6. **Function buttons:** S, ▶, ▲

## Overview

ADT780–1K–EPUMP air pressure source uses electric driven pumps to generate positive pressure and vacuum pressure. It can generate –13.5 psi (–0.095MPa, –0.95 bar) vacuum and 1,080 psi (7.5MPa, 75 bar) pressure. With two independent control and pressure generation systems, vacuum and pressure can run simultaneously. This system supplies a steady and reliable air source for Additel 780 pressure controller.

## Specification

- **Pressure range:**
  **Vacuum:** –0.095MPa to 0MPa, @ the local atmosphere is 0.1MPa. Pressure is displayed in absolute pressure. The conversion between absolute pressure and vacuum is: Vacuum value = local atmosphere value – set absolute pressure value.
  **Pressure:** 0MPa ~ 7MPa (pressure is displayed in gauge pressure).
- **Vacuum pressure limit:** User–selectable low and high set point limits. Vacuum will be generated until the vacuum pressure is in between the low and high set point values and then remain in a standby state.
- **Positive pressure limit:** User–selectable low and high set point limits. Pressure will be generated until the pressure is in between the low and high set point values and then remain in a standby state.
- **Media:** Air
- **Suction flow:** 9L/min
- **Power supply:** W 100 to 250V 50/60 Hz
- **Dimensions:** 21.7" X 17.3" X 9.3" **LWH** (550 X 440 X 235 mm)
- **Weight:** 69.7 lbs (31.6 kg)
- **Outlet port:** G1/8F
- **Storage temperature:** –20° C to 70° C
- **Additel has made a concerted effort to provide complete and current information for the proper use of the equipment. The product specification and other information contained this manual are subject to change without notice.**




# Additel 780-1K-EPUMP Electric Pump User Manual

[Version No.: 1510V01]

## Operation

**1.1 Preparation**

- Connect pressure hoses to the outlet ports. Ensure the pressure hoses are rated for the max pressure generation of the EPUMP.
- Empty the liquid collector prior to use.
- When pressure reaches the high limit, the EPUMP may exhaust or vent out of the back of the unit. Safety valves are programmed to prevent the EPUMP from over pressuring.

**1.2 Pressure/vacuum generation**

- Power on the pressure booster and the display will illuminate.
- Press the control switch and the pump will begin pressure/vacuum generation. When the control switch is on it is illuminated green the pressure/vacuum will be generated until the control limits are reached and the electronic pump will stop. When pressure/vacuum drops below the low limit the electrical pump will begin pressure/vacuum generation. (Note: When the control switch is on and pressure/vacuum has been generated the control switch can be selected to the off position which will not vent the pressure/vacuum but prevent further pressure/vacuum generation)

**1.2.1 Selecting the pressure/vacuum unit**

- Push the button S to select the desired pressure unit between “psi”, “bar”, “MPa” and “kgf/cm2”

**1.2.2 Set the lower/upper limit**

- Refer the figure 1–1, press and hold button S. The left digit on the lower limit will flash. The flashing digit can now be set by using the ▲ button which will increment the selected number.
- Push the ▶ button to select the desired digit to be changed.
- Press the S button to exit the menu.
- To completely vent the system, power off the EPUMP.

Note: The lower limit value must be less than upper limit value.




Figure 1-2 Display Lock Mode




Figure 1-3 Display Unlock Mode

## Operation

**1.3 Lock/unlock the display**

Press and hold the ▶ button to enter lock mode. The LED displays “Loc” see figure 1–2. This means all display buttons locked. Press and hold the ▲ button to unlock the display. The LED displays “unL” see figure 1–3. This means the display can be operated as usual.

**1.4 Positive pressure zero**

To zero the pressure/vacuum measurement, ensure the EPUMP is vented to atmosphere and simultaneously press ▶ and ▲. The displayed pressure will change to zero when the process is complete.

## Maintenance

**1. Filter replacement**

Over time and use, the air filter will need to be replaced. The recommended interval to replace the air filter is yearly. Press in the air filter cover (see figure 1–1) and unscrew the air filter cover counterclockwise (see figure 1–2). Remove the filter and replace it with a new one.

**2. Emptying the liquid collector**

It is possible for some liquid to gather in the liquid collector. When liquid is present, it should be drained before use. If not, there is some potential for the liquid to damage the vacuum pump.

**A**. Remove the vacuum hose on the back panel of the EPUMP.

**B**. Put a container under the liquid collector. Unscrew the cap to the liquid collector by turning it counterclockwise (see figure 1–3).

**C**. After all of the liquid drains out screw back on the liquid collector cap(see figure 1–4)

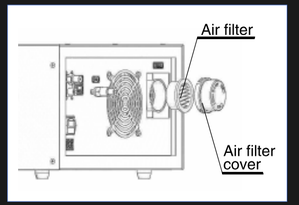



Figure 1-1

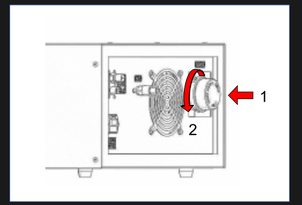



Figure 1-2

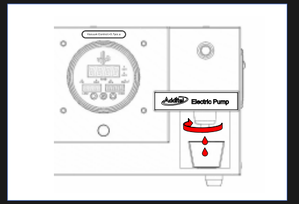



Figure 1-3

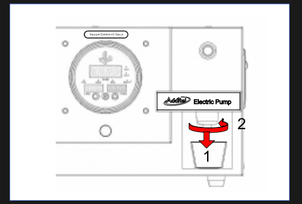



Figure 1-4