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Sample Pump Kit Manual

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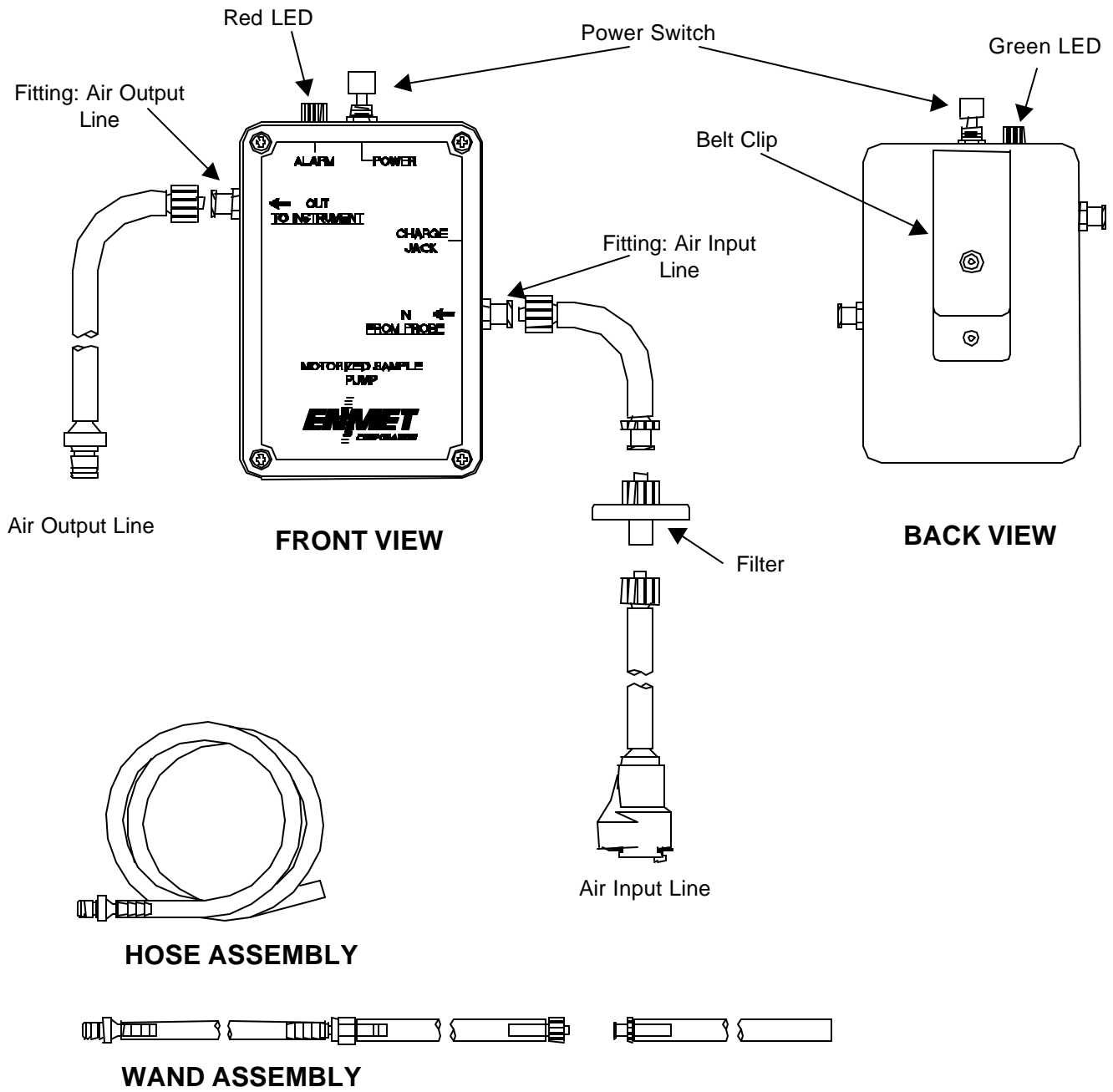


Figure 1: Sample Pump Features

1.0 Introduction

1.1 The pump assembly

The pump assembly is a fixed flow device used to supply sample air at the correct flow rate to all ENMET portable instruments models.

1.2 Intrinsic Safety:

The pump is designed to be nonincendive as defined by the National Electrical Code.

WARNING: Do not change electrical components. In particular, do not use a different battery pack or charger than the one designed for use with the pump. Substitutions may affect the nonincendive design of the pump; personal injury, death, and property damage may result from an explosion.

2.0 Features

See Figure 1 for location of features.

Feature	Description
POWER Switch	Controls power from the battery to the pump motor and circuits.
Green LED	Indicates that power is being supplied through the switch.
Red LED and Audio Alarm	Indicates that air flow is insufficient, or a low battery condition.
Air Input Line	Conducts air to the pump assembly.
Fitting, Air Input Line	Connects with the mating fittings on the hose assembly and the wand assembly supplied with the pump kit.
Filter	Prevents particulate matter and liquids from entering the pump assembly.
Air Output Line	Conducts air from the pump assembly to the instrument or associated sensor shield.
Fitting, Air Output Line	Connects with the mating fitting on the instrument or associated sensor shield.
Charge Jack	Connects with the mating plug on the charger.
Charger	Supplies charging current to the pump assembly battery.
Wand Assembly	A jointed Plexiglas tube with attached flexible tubing to conduct input air to the pump assembly.
Hose Assembly	Approximately 6 meters of flexible tubing to conduct input air to the pump assembly.
Sensor Cover (not shown)	A sheet metal or plastic enclosure to partially block the holes in the instrument sensor area. This cover differs from instrument to instrument.

3.0 Operation

3.1 Charging:

Charge the pump assembly battery by plugging the charger into an appropriate wall socket and the charger plug into the jack on the pump assembly. Charge for 14 - 16 hours

WARNING: Do not charge in a hazardous atmosphere as defined by the national electrical code. Property damage, injury, or death may result if an explosion occurs.

3.2 Fittings:

Attach the air output line fitting to the mating fitting on the instrument or associated sensor cover. Attach the input device selected, wand assembly or hose assembly to the air input line fitting.

3.3 Mountings:

The pump assembly is equipped with a belt clip, used to attach the pump to a belt, pocket or harness strap.

To mount the pump on an instrument:

- Remove the belt clip. **Note:** The screws also hold the internal circuit board in place.
- Replace the screws.
- Using the four pieces of adhesive backed Velcro supplied with the kit , two with hooks and two with loops.
- Remove the protective paper, stick these to the pump and instrument, and use them to mount the pump on the instrument.

3.4 Turn Pump On:

Supply electrical power to the pump motor by putting the POWER Switch in the on position (S/N below 1000) or by pushing the POWER Switch. The Red LED and associated AUDIO ALARM may activate momentarily; this is acceptable.

Observe that the green ON LED is lit, and listen for the noise made by the pump. Units with S/N 1000 and above are very quiet.

3.5 Use:

Use the pump assembly as required to supply appropriate sample air to the instrument.

3.6 Alarms:

Audio alarm and red LED indicate either air flow interruption or low battery voltage.

CAUTION: If at anytime during use of the pump the alarms are activated, discontinue use of the pump. If in a confined space or other potentially dangerous location leave immediately

3.7 Shutdown:

When use is no longer required, turn the pump off, remove the sensor cover from the instrument, and disassemble the pump kit as required for storage.

CAUTION: Failure to remove sensor cover from instrument will cause the gas detector to be ineffectual for ambient air monitoring.

4.0 Troubleshooting

4.1 Pump won't turn on:

- Put pump on charge (12 – 16 hours).
- Check output of charger.

4.2 Pump running, audio and visual alarms activated:

- Check tubes for obstructions, fluid or particulate.
- Check input filter.
- Charge pump (12 – 16 hours).
- Check output of charger.

If unable to achieve proper operation of pump contact ENMET or your local distributor.

5.0 Maintenance

5.1 Storage:

Store the pump and associated equipment in a clean, dry location.

5.2 Charging:

Do not charge the battery continuously. If the pump is not used for a period of time, exercise the battery by running the pump until the battery reaches "Low Batt" alarm then recharging the battery for 14 – 16 hours.

5.3 Replacement Part Numbers:

ENMET Part Number	Description
73081-101	Input Filter
67019-102	Battery Pack
67019-001	Battery Pack; <i>for S/N 1000 and above</i>
67051-025	Charger, 110VAC
67051-027	Charger, 220VAC
03700-018	Wand assembly
73073-001	Flexible tubing, sold by the foot
73073-017	Fitting, quick release, male
04805-006	Pump, <i>for S/N 1879 and below</i>
04805-008	Pump, <i>for S/N 1880 and above</i>

6.0 Warranty

ENMET warrants new pump assemblies to be free from defects in workmanship and material under normal use for a period of nine months from date of shipment from ENMET. The warranty covers both parts and labor. Equipment believed to be defective should be returned to ENMET within the warranty period (transportation prepaid) for inspection. If the evaluation by ENMET confirms that the product is defective, it will be repaired or replaced at no charge, within the stated limitations, and returned prepaid to any location in the United States. ENMET shall not be liable for any loss or damage caused by the improper use of the product. The purchaser indemnifies and saves harmless the company with respect to any loss or damages that may arise through the use by the purchaser or others of this equipment.

Material shipped to ENMET for warranty evaluation must be packed so it is not damaged in shipping. Material damaged in shipment is not covered by warranty.

This warranty is expressly given in lieu of all other warranties, either expressed or implied, including that of merchantability, and all other obligations or liabilities of ENMET which may arise in connection with this equipment. ENMET neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than that which is set forth herein.