



Dear Customer,

Congratulations on your purchase of this versatile and need oriented suction unit. It will serve you well for years, if properly looked after. The medical profession has long felt the need for a lightweight, easy-to-move, safe, dependable and easy-to-regulate suction unit. INSTAD fills this healthcare need to a degree unmatched by any other unit. It is designed for use in ambulance and for long term patient care, users in personal vehicles.

ASSEMBLY

The pump (based on piston system), battery & PC card are housed in the ABS enclosure. The panel has a vacuum gauge, release valve (for vacuum adjustment), on/off switch and a LED neon light.

The function of the LED'S is as under.

If the one above the on/off switch (when 'on') is

GREEN - it means it is working on AC mains

YELLOW - it is working on DC 12 V

The other LED indicator shows the battery status. If it is

GREEN - the battery fully charged

YELLOW - it is half charged

RED - battery is low and needs charging

TECHNICAL

Housing	ABS Plastic Moulded & 3 Stage LED Indicator for Battery Status
Max. Vacuum / LPM	600 mm Hg, 21 Ltrs / min
Pump Type	Piston Pump
Jars	1 x 1 Ltr. PC Jar
Filter	Bacterial Filter Autoclavable / Reusable
Tubing	8 mm ID x 2 mtr. (Silicon)
Vacuum Gauge	5 cm dia 0-760 mm Hg
Power Supply	220 V AC, 50 / 60 Hz, 70 Watt, 12 V DC Internal Rechargeable Battery (12 V 4.5 Amp) Lead Acid (Ni-cd Optional)
Noise Level	55 dB A ± 3
Battery	Lead Acid (Ni-cd Optional)
Dimensions	39 x 22 x 22 cms
Net Weight	5.5 Kg
Overflow Safety	Mechanical

Provided with AC adaptor and cigarette lighter socket cable for use in ambulance/car.

VACUUM AT ALTITUDES

The specified maximum vacuum refers to sea level. According to local conditions, and barometric pressure, slight deviations in vacuum reading may be noted. As a reference, the table below shows several factors, by which the indicated maximum vacuum value must be multiplied, according to the altitude of location where the measurement is carried out.

Location / Maximum Vacuum

Location	Sea level	1000m	2000m	4000m
Factor	1.00	0.88	0.78	0.60

Antibacterial filter (element replaceable) is between the unit and the collection jar lid.



Before the unit is put on please see that :

1. 'O' rings on the push-in connector are not worn out.
2. Jar be checked for any crack, tubing & lid be tightly placed on the jar. The angular connector must be inserted as far as the stop. While unplugging, twist and pull.
3. Adjust vacuum before use. Fully tightened clockwise knob means full vacuum.

JAR / CLEANING AND DISINFECTING : Polycarbonate jar (PC) is superior to glass. 3/4th filling is recommended. After each use, jar, lid, over flow cut off valve, catheters, etc. should be cleaned thoroughly. When cleaning is necessary after infective fluid has been evacuated, the jar, lid, filter housing, tube, cut off valve can be sterilized by autoclaving upto 120° C for 20 minutes. Alkaline cleaning agents and disinfectants based on phenyl may not be used.

Adherence to hospital directives on hygiene is of prime importance. The instructions provided by the suppliers of cleaning agents as well as by the manufactures of sterilization/Or disinfection units must also be followed, where application, temperature, process duration and airing, etc. are concerned.

BACTERIAL FILTER: The replaceable filter element filters evacuated air before it enters the pump, thereby infecting the environment. It must be changed on normal days but immediately after vapours have entered or after infective suction has been done.

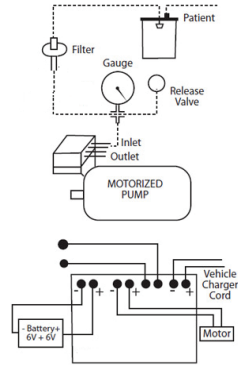


PUMP

The unit is fitted with Piston type oil-free pump, provides reduced maintenance cost. NO LUBRICATION / OIL IS REQUIRED IN THIS PUMP. The unit has not to be tampered with by any mechanic other than our factory engineer, or the person authorized.

BATTERY REPLACEMENT

Open the unit by unscrewing from the bottom of the unit, remove negative and positive connections on the battery. Remove the battery from the hook and install new battery. Remember to charge the new battery for 8-10 hours for optimum performance.



TROUBLE SHOOTING:

Problem	Possible source of trouble	Check / Action to be taken
Motor does Not Run	Power Supply	Voltage, power socket
	Main switch	Set at "ON"
	Electrical cord	Plug type, plug connections, damaged cord
	The blood has entered the pump. The remedy is given above under pump cleaning	
Inadequate Suction Performance	Leak within the pump or in the external suction circuit	Isolate the source of trouble by carrying out the checks outlined
	External cause : Push-in connector O-ring / Lid gasket	Condition
	Push-in angular connectors	No Leaks at tube ends. Push in as far as stop.
	Release Valve	The knob should be tightly placed
	Tubing	Cracks, brittle areas
	Lid	Airtight fit jars and Safety jar
	Jar	Condition, Possible cracked edges, hairline cracks
	Bacteria filter housing on Safety jar top	Condition and absence of leaks
	Filter Paper	Condition, position of housing
Battery Inadequate battery back-up	Charge the unit for 4-6 hours or replace battery	
Vacuum gauge indicates a vacuum pump does not suck, however	Blockage or kink in tubing within the pump or in the external suction circuit	Isolate source of trouble as follows: Remove the filter upwards, leave the suction connection open. If the vacuum gauge now indicates zero vacuum, the cause is external
	External cause: Bacteria filter, safety jar, overflow valve the lid, (float valve) push-in connectors, tubing etc.	Investigate the whole external suction circuit for blockage (s), float valve sticking, kinked tubing and rectify. If the vacuum gauge still indicates a vacuum = the cause is internal

TERMS OF WARRANTY

Anand Medicaids Private Limited warranty the high quality and workmanship of each Anand's INSTAD – AC/DC for a period of one year subsequent to the date of delivery by the company. During this period, faulty material will be replaced free of charge. This warranty does not extend to components that are subject to wear and tear in the course of normal operation or due to improper treatment/maintenance as per instructions.

Further conditions in accordance with international standard IEC 601.1 item 6.8.2b.

The manufacturer is only responsible for effects on the safety, the reliability and the performance of the appliance if

- Installation, additions, adjustments, modifications or repairs are carried out by personnel authorized by the manufacturer
- The electrical installations within the room concerned satisfy the requirements laid down by IEC.
- The appliance is used in full accordance with the instruction manual which is solely a guide and no substitute for professional training. The safe and effective use of this product largely depends on the skill of the operator. We are not liable for any damages due to mishandling or improper and unauthorized use.
- The company reserves the right to change technical specifications, designations and catalogue numbers without prior notice.

CAUTION 


Ensure that your electrical wirings are well earthed with 1 line and 1 neutral phase and voltage is between 220 V – 230 V, 50 Hz. : for electric suction units only

Ensure the suction unit should not be lifted above human body level

Dispose of used products/packaging in safe manner so as not to harm stray cattle, children and environment.

WARRANTEE CARD

Model No.



Date of Purchase:

Dealer Name:

Stamp:



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