GREELOY
硅莱

Dentalzone

DENTAL SUCTION UNIT

OPERATION MANUAL

Thank you for choosing Greeloy Medical GS-M series mobile dental suction unit! Before the first installation or operation, please make sure to read this manual carefully, especially about details of operation and precautions as mentioned from the manual, which would help you to use this mobile suction unit better.

Disclaimer:
Description from this operation manual do not represent any explanation of specification or configuration of our product. For details about specification or configuration, please refer to the agreement or packing list associated with our product, or consult our direct distributor from your local market.

With the update with technology and changes with the relevant laws or regulations, we reserve the right to modify this operation manual without notice. If you have any question about our product, please call us directly or visit our website.

This operation manual is copyrighted by Greeloy Medical Instrument (Zhejiang) Co., Ltd. The copyright of other accessories or documentation accompanying this product is owned by its corresponding organization or person.

Symbol Mark



Note: May lose some spare parts or material.



Note: May damage the unit or cause it to not work properly.

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1. Overview

Thank you for choosing Greeloy Medical GS-M series mobile dental suction unit, this suction adopts perfect filtration and air & water separation structure, combined with reasonable ergonomic appearance mechanism design, it has a nice working performance, powerful suction, and quiet noise.

Name: Dental Suction Unit
Model No.: GS-M xxx
Main Configuration: Please refer to the packing list attached to this unit
Structure: Suction motor, filter, air & water separator, control board and other components
Scope of Application: Provide negative pressure during dental treatment
Contraindications: No contraindications have been found
Production Date: Please refer to the nameplate
Use Period: 5 years
Safety and Tips:
1) **Power requirement:** power supply must be consistent with the requirement from nameplate; and require a good grounding, which would ensure good grounding of the suction unit.
2) **Repair and maintenance requirement:** before maintenance / repair or clean this suction, please be sure to disconnect the power supply first.
⚠ **Note:** DO NOT use the suction in the presence of a mixture of flammable anesthetic gases and air, or a mixture of flammable anesthetic gases and oxygen or nitro oxide.
⚠ **Note:** DO NOT use this suction in the environment which with strong electromagnetic. Strong electromagnetic environment may cause the unit cannot work improperly.

2. Technical Parameters

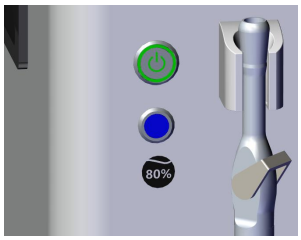
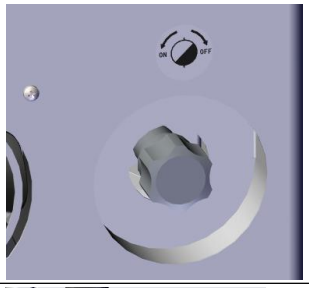
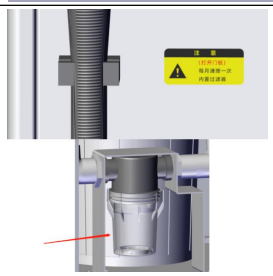
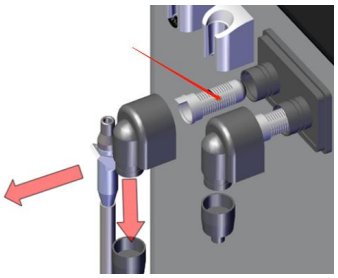
Power Supply: Input power, AC 110V~240V, 50/60Hz
Product Size: 325mm*380mm*820mm
Packing Size: 450mm*510mm*920mm
Main Parameters:

Model No.	Power (VA)	Max. Suction Volume (L/min)	Max. Negative Pressure (Kpa)	Noise (dB)	Fuse (A)	N. W. (kg)	G. W. (kg)
GS-M 300	300	350	-10	≤60	10	27	32.8
GS-M 400	400	400	-12	≤60	10	30	35.8

Operating Mode: Intermittent working

Marking Explanation:

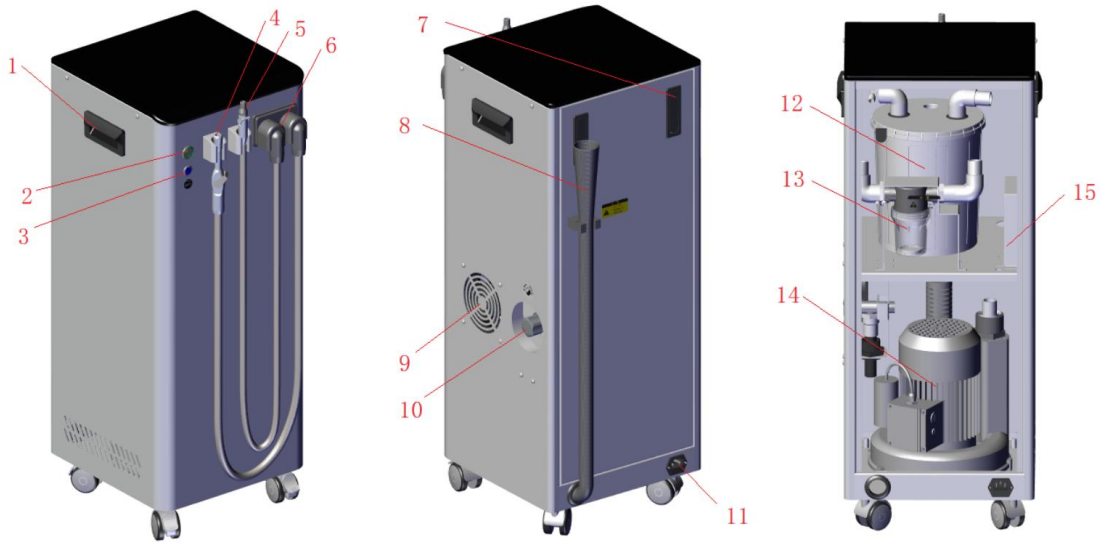
Marks	Explanation
	Trademark
	Note! Please read accompany files
	Ground protection
	AC Power
	Afraid of wetness
	Up side
	Handle with care

Marking and functional descriptions	Fig
Liquid level marking: During operation, if the liquid level indicator light on, it indicates that the dirt water tank inner liquid has reached 80% of the available capacity, please empty the dirt water immediately after the completion of this operation.	
Drainage marking: On the right side of suction, there is the drainage valve, turn the handle in counterclockwise direction, drain out the dirt water; turn the handle in clockwise direction, close the valve. (Please keep the soft drain hose in the sewerage outlet before discharging dirt water)	
Cleaning built-in filter marking: Open the rear door once a month to clean the built-in filter system. Turn down the built-in filter transparent cup in clockwise direction, pull off the metal filter, clean and dry it, and then put it back.	
Pre-filter cleaning marking: The pre-filter is plug-in design, rotate it and pull out the lid by hand, pull out white filter net, clean and dry it, and put it back. (The pre-filter is recommended to be cleaned at least once a week; if this mobile suction is used frequently, please clean this filter after daily shutdown, suck a cup of water after cleaning is better)	

NOTE:
Unstable electricity power supply would cause damage to suction, please operate the suction unit in strict accordance with the power supply voltage specified by nameplate**.**

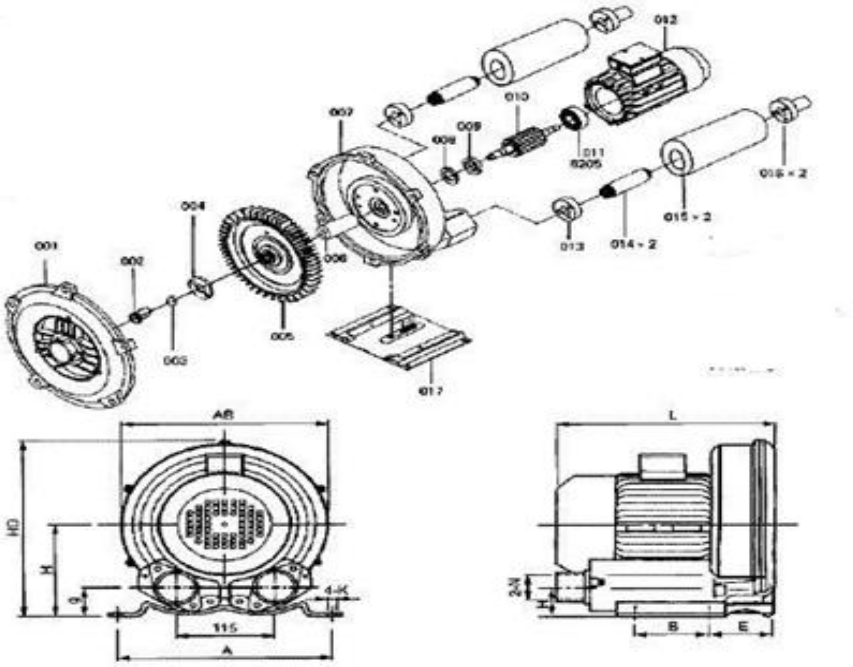
3. Structure & Working Principle

1) Main unit structure



1.Handle	2. Power switch	3. Liquid level indicator	4. HVE
5. Saliva ejector	6. Pre-filter	7. Door lock	8. Soft drain hose
9. Cooling system	10. Drain valve	11. Power socket	12. Dirt water tank
13. Built-in filter	14. Suction Motor	15. Electric control box	

2) Suction Motor Structure



001 Wind Cover	005 Impeller	009 Bearing block	014 Core part
002 Screw	006 Bushing block	010 Rotor	015 Flue pipe
003 Spring-pad	007 Wind Barrel	012 Electric motor	016 Connector
004 Impeller plate	008/011 Bearing	013 Rubber gasket	017 Foot

3) Working principle overview

Mobile suction unit working principle:

Connect to correct electricity power supply, turn on the power switch, pick up suction from the shelf, suction unit start to work to suck foreign matter and secretion from patient's mouth; pre-filter separates solids, dirty blood and secretion, the separated dirty blood and secretions will enter into dirt water tank, the solid particles will remain in the pre-filter (so the pre-filter need to be cleaned regularly).

In order to ensure clean air flow enters into suction motor and the impeller of motor will not be damaged by corrosion, once the sewage in dirt water tank reaches a certain height, the mobile suction unit will automatically stop, empty dirt water tank manually, after that the mobile suction can start to work again.

Suction motor working principle:

Suction motor's impeller contains numerous vanes in edge, it is a special design for high pressure. When the impeller is rotating, air between vanes is subjected to centrifugal force and moves towards the edge of impeller. There, the air enters annular cavity of motor again, then returns to the impeller and circulates again in the same way from the start of vanes. Since the air is accelerated by multiple cycles, air leaves the motor at a very high speed, thus generating suction power.

4. Environmental Conditions & Commissioning

(1) Transport and storage conditions

Ambient temperature range: -10℃~+55℃
Relative humidity range: ≤90%
Atmospheric pressure range: 500hPa~1060hPa
Attention during transportation and storage: "Upward", "Afraid of wetness"

(2) Operating conditions (Do not use in a humid or flammable and explosive environment)

Ambient temperature range: 5℃~40℃
Relative humidity range: ≤90%
Atmospheric pressure range: 500hPa~1060hPa

(3) Electricity power supply conditions

Plug the power cord into a grounded outlet, which meets national safety standards for electricity. *(The power supply must match information from nameplate)*

(4) Commissioning

1) Keep the mobile suction unit on a plane with a maximum inclination of not more than 2°.
2) Turn on the suction unit: connect to correct power supply, turn on the power switch, power indicator lights up, indicating that power supply is normal; the side exhaust fan works, the mobile suction unit can work normally. Pick up the suction from shelf (both HVE and saliva ejector are available), the suction unit starts to work, put the suction back, with delay about 10 seconds, suction unit stop working.
3) Automatic stop: connect to correct power supply, turn on the power switch, pick up the suction from shelf (both HVE and saliva ejector are available), suck clean water (about 2.5L, the liquid level indicator light is on; about 3L, the available volume of dirt water tank is full), when the dirt water tank is full, suction unit stops working.
4) Drainage: Once dirt water tank is full, the suction unit will stop automatically; turn off power switch, put the soft drain hose in sewerage outlet, open the drainage valve on side of suction unit (please refer to the marking), empty the dirt water tank, and close the valve.

5. Maintenance

Regular maintenance can effectively reduce the occurrence of failures, keep suction unit in good working condition and prolong its service life. During cleaning and maintenance, the operator must wear mask and waterproof gloves.

Specific operations are as follows.

1) After each use, in order to avoid bad smell and reduce the possibility of infection, please suck 200ml clean water once operation is completed.
2) After one day use, in order to avoid bad smell and reduce the possibility of infection, use non-foaming cleaning agents and disinfectants to clean pipeline. Please DO NOT clean directly with hot water.
3) Clean the built-in filter at least once a month and clean the pre-filter at least once a week to avoid the reduction of suction power.
4) Please check whether the power cord and pipeline are squeezed or damaged before each use.
5) Cleaning requirements: Please keep the mobile suction unit clean. Before cleaning, please cut off power supply, wipe the outer surface with a soft cloth dampened with neutral detergent, and dry it with a slightly damp soft cloth. Do not rinse directly with liquid or clean with detergent containing flammable substances.

Note: Except of items 1 and 2 which need to be powered on, all other cleaning and maintenance require disconnect with power supply *(unplugging is the safest and most thorough way)*. The internal cleaning and parts replacement need to be operated by authorized service provider's technical personnel, others are strictly prohibited for any operation.

6) After 5 years of use, if the suction unit is damaged and cannot be used any more, please dispose as scrap. You can choose a professional company to recycle or dispose according to your local national regulations.

6. Service After Sales

If the mobile dental suction unit is accompanied by our service specification (warranty

document), we will provide service after sales only in accordance with such service specification. If the mobile dental suction unit does not come with our service specification (warranty document), it means service after sales you receive for the suction will be performed according to the written agreement signed between the provider and the recipient, and does not apply to our service specification (warranty document), nor does it contain any other express or implied warranty, in which case you will not receive our service after sales. Please clear about this before purchasing!

This mobile dental suction unit will only be sold in countries and regions that meet the requirements of local laws and regulations.

Our company will not be responsible for any of the following cases.
1, Claims by third parties against you.
2, Incidental or consequential damages and economic losses.
3, All damages and economic losses caused by your own additions to the configuration.
4, Damage and economic loss caused by your failure to use the product in the environment specified in this manual, or failure to operate in accordance with the methods specified in this manual.
5, All damage and economic loss caused by human force majeure factors resulting in damage to the unit.

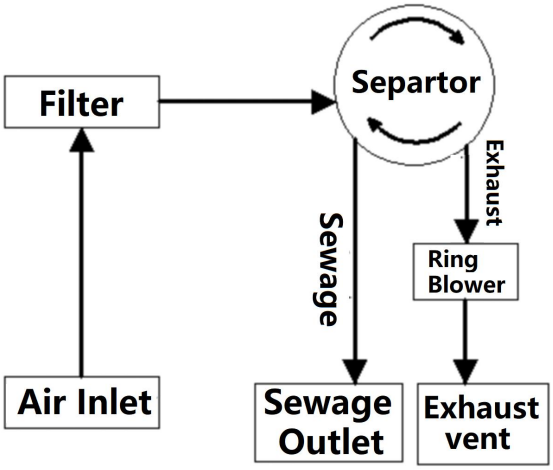
7. Troubleshooting

No.	Problem	Cause	Solution
1	Suction unit does not run	Power supply not connected, incorrect power connection or power supply problem	Check main power supply and fuse
2	Loud working noise	Solid particles or debris get into suction motor	Disassemble the suction motor to check the impeller
3	Vibration too much	Suction motor impeller is damaged or the impeller is dirty	Disassemble the suction motor to check the impeller, clean or replace it
4	Suction unit get overheating	The voltage is too low, or air inlet is blocked	Check electricity power supply, or clean filter, check all pipes and connections
5	Suction power is reduced	Air inlet blocked or filter blocked or leaking from pipeline	Clean filter, check all pipes and connections
6	Suction motor is overload	Voltage is too low	Check the power supply voltage, power cord specifications
7	Suction motor is blocked, heating fast	Didn’t use this suction unit for a long time	Use a screwdriver to toggle the fan, then start the suction

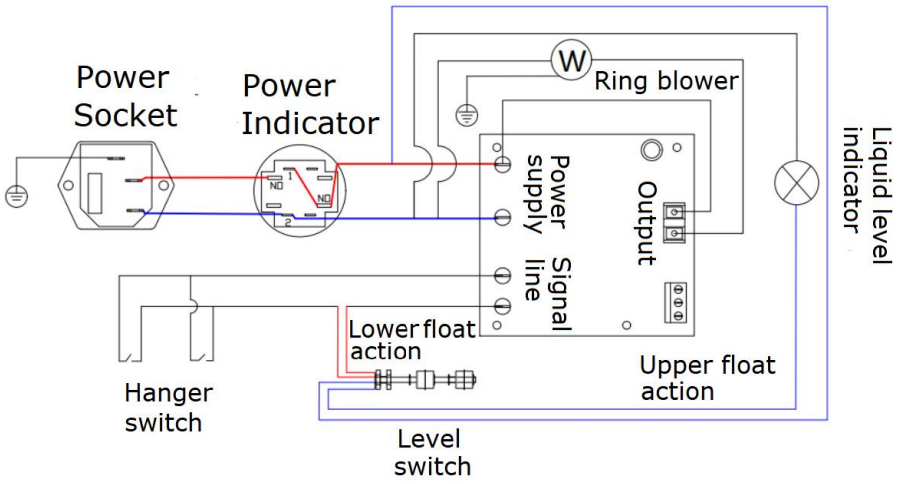
Note: If this mobile dental suction is working abnormally, please do not use it, please do not open the unit or replace any part without permission, please contact manufacturer or authorized service provider for repair. Circuit diagram, parts list, product description, instruction manual, technical manual and other related information will be provided when the qualified technician under maintenance with this suction unit.

8. Electrical Schematic

(1) Schematic diagram of the pipeline



(2) Circuit diagram



9. Packing list

No.	Item	Qty
1	Dental Suction Unit	1 pc
2	Power Line	1 pc
3	Operation manual	1 pc
4	Fuse	2 pcs