



## **M700 Mobile Dental Cart Instructions for Use**



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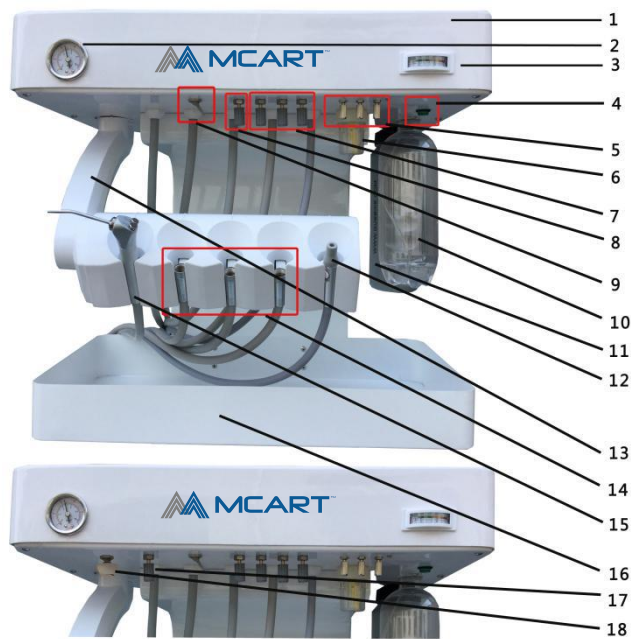
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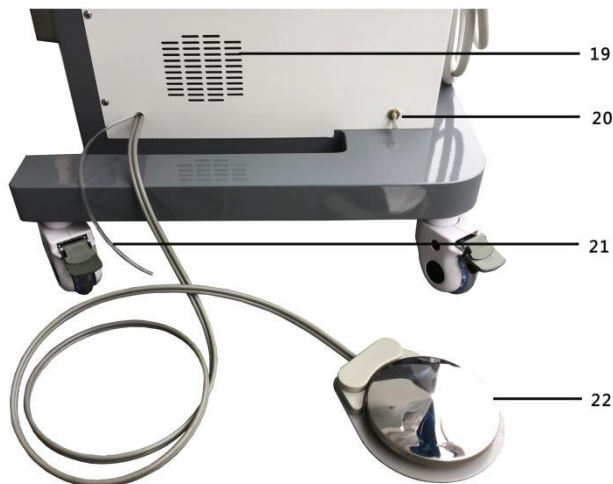
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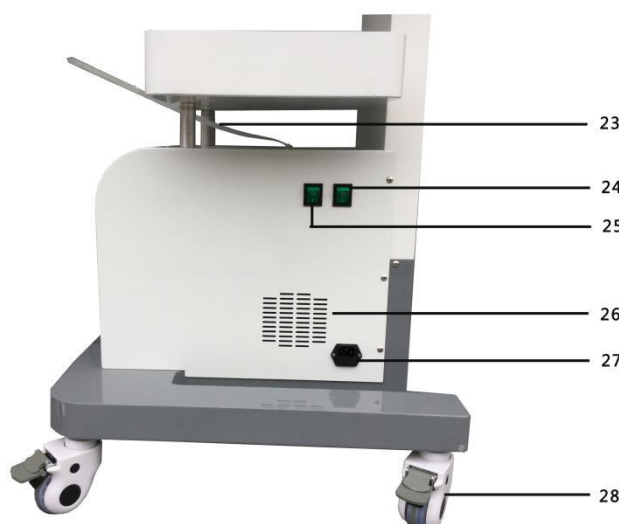
# 1. Overview



1. Accessory Tray
2. System Pressure Gauge
3. Handpiece Pressure Gauge
4. S.E. Switch
5. Handpiece Air Regulating Valve
6. Air Cylinder Cup
7. Handpiece Water Regulating Valve
8. Atomizing Regulating Valve
9. Water Bottle ON/OFF Switch
10. Water Bottle
11. Sewage Bottle
12. Saliva Ejector
13. Instrument Holder Bar ( 90 degree rotation )
14. Handpiece Tubing
15. 3-way Syringe
16. Accessory Tray
17. Scaler Water Regulating Valve (Optional)
18. Scaler Frequency Regulating Valve (Optional)



19. Vents
20. Waste Pump ON/OFF Switch
21. Water Drain
22. Foot Control



23. Fixing Strap (Cut off before turn on the M700)
24. Air Compressor ON/OFF Switch
25. Main Power ON/OFF Switch
26. Vents
27. Main Power Inlet
28. Rear Caster (w/Brake)

### Package Contents

- Self Contained Mobile Cart
- Saliva Ejector Hoses
- 3-Way Air/Water Syringe with Tip
- One Water Bottles
- One Sewage Bottle
- Foot Control
- Power Cord
- Waste Hose
- Fixing Strap

### Purchased Separately

- Build-in Sclaer
- Build-in LED Curling light
- Dental Handpiece
- Dental endoscope system
- Operation lamp with arm

## 2. Safety Precautions

Mcart accepts no liability for direct or consequential injury or damage resulting from improper use, arising in particular through the non-observance of the operating instructions, or improper preparation and maintenance.

**WARNING:** Clean, disinfect, and sterilize new or repaired handpieces and instruments before first use and between each patient use. Only use sterilized handpieces and instruments during treatment. Non-sterilized handpieces and instruments may cause bacterial or viral infections. Always sterilize handpieces and instruments after operation.

**CAUTION:** Always examine unit components for damage before commencing treatment. Damaged components must not be used and must be replaced.

**WARNING:** Use for intended purposes only. Failure to observe the operating instructions may result in the patient or user suffering serious injury or the product being damaged, possibly beyond repair. Before using this product, make sure that you have studied and understood the operating instructions.

**WARNING:** For use by qualified and trained personnel only.

**WARNING:** Do not install where there is a risk of an explosion. The Mobile Mobile Dental Cart is not intended for operation in the presence of flammable anesthetics or gases.

**WARNING:** Always operate a high-speed handpiece with water coolant. Operating a high-speed handpiece without water coolant can cause thermal injury to the patient.

**CAUTION:** Observe local regulations concerning disposal of amalgam waste.

**WARNING:** Never operate unit or work on patients when the top cover is open.

**WARNING:** Do not use this device for dental implant procedures.

**CAUTION:** Do not run saline solutions through the water system-saline will corrode the

## Optional equipment safety precautions:

### **WARNING:** CONTRAINDICATIONS

Ultrasonic oscillations emitted by the optional Ultrasonic Scaler may prevent the proper function of cardiac pacemakers. Therefore, Aseptico recommends that patients with a cardiac pacemaker should not be treated with the Ultrasonic Scaler component of the M700 Cart.

**WARNING:** The optional Ultrasonic Scaler instrument tips oscillate at high frequency and can fracture during operation. To help prevent the tips from fracturing and possibly injuring the patient, always follow the scaler manufacturer's operating instructions and recommended ultrasonic power settings.

**WARNING:** Do not use the optional Ultrasonic Scaler dry. If used dry, the Instrument Tip will heat immediately. This may cause thermal injury to the tooth. Ensure that adequate liquid coolant is always available.

**WARNING:** Avoid looking directly into the optional Curing Light. Protect patient's eyes with darkened eyewear when using the Curing Light Probe

## 3. Feature

Your new Mcart M700 Mobile Dental Cart is the finest mobile dental system available. The System provides an array of standard and optional dental equipment features and functions designed to serve a wide range of dental applications -- all conveniently packaged into a single self-contained transportable cart.

### **Stand Features:**

1. Fully self-contained ergonomic dental cart with built-in oil-free air compressor.
2. Two high speed air handpiece connections.
3. One low speed handpiece connection.
4. One 3-way air/water syringe.
5. Electric suction with automatic overflow protection and solids trap.
6. Unique pivoting instrument holder.
7. One 1-liter bottle for irrigation.
8. One 1-liter waste container.
9. Large work surface.
10. Large instrument storage tray.
11. Easy access for maintenance.
12. Foot control.
13. Handpiece water coolant on/off switch and adjustable flow control.
14. Adjustable handpiece pressure.
15. Durable powder coated frame and cabinet.
16. Built-in 8-liter stainless steel air tank.
17. Sound insulated for quiet operation

### Optional Features:

1. Optional Dental endoscope system.
2. Optional operation lamp with arm.
3. Optional Handpieces.
4. Optional Ultrasonic scaler.
5. Optional Curing light.

### INDICATIONS FOR USE:

The M700 Mobile Dental Cart is a mobile self-contained dental system that is used for endodontic and general dentistry applications.

This System is engineered to provide many years of reliable service. Please read the instructions provided in this manual to receive the best and longest service from your M700 equipment.

## 4. Set Up the Unit



4.1 Unpack the M700 Mobile Dental Cart from its cardboard crate



4.2 Attach the appropriate handpieces to their tubing connectors, and place all handpiece and accessories tubes in their appropriate holders.



4.3 Fill the water bottles with clean water or other suitable irrigation fluid.



4.4 Place the foot control on the floor.

## 5. Operation

### 5.1 Initial start-up the M700 Mobile Dental Cart

- Sanitization must be performed prior to the initial start-up of your M700 Mobile Dental Cart.
- Cutting the fixing strap must be performed prior to the initial start-up of your M700 Mobile Dental Cart.



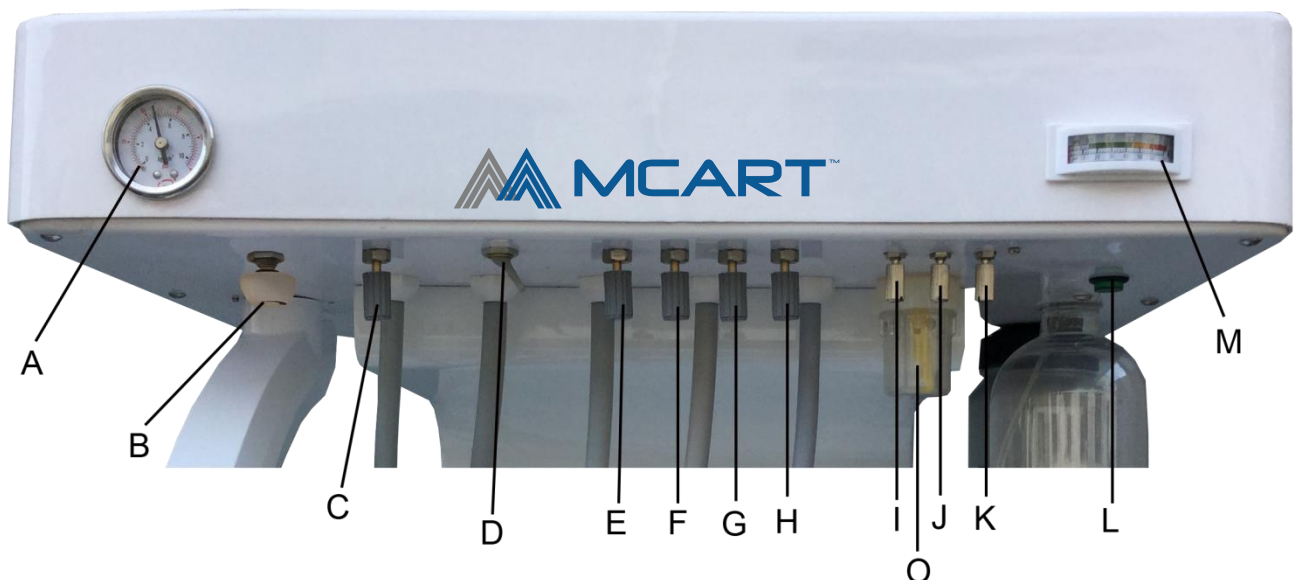
### 5.2 Foot Control



The foot control activates the handpieces. Position the foot control on the floor. For handpiece and scaler operation, depress to work; release to stop working.

### 5.3 The dentist element

#### 5.3.1 Control buttons on the dental component



KEY TO COMPONENTS			
A	System pressure gauge	H	The third handpiece water regulating valve
B	Scaler frequency regulating valve (optional)	I	The first handpiece air regulating valve
C	Scaler water regulating valve (optional)	J	The second handpiece air regulating valve
D	Water bottle ON/OFF switch	K	The third handpiece air regulating valve
E	Atomizing regulating valve	L	S.E. Switch
F	The first handpiece water regulating valve	M	Handpiece pressure gauge
G	The second handpiece water regulating valve	O	Air cylinder cup

**A. System pressure gauge**

The pressure to the air can be read on the air tank gauge located on the left front panel of the unit.

**B. Scaler frequency regulating valve (optional)**

The ultrasonic intensity can be adjusted by turning the control knob clockwise to maximum or counterclockwise to minimum.

**C. Scaler water regulating valve (optional)**

Adjusts the flow of water to the working scaler.

**D. Water bottle ON/OFF switch**

Turn off the bottle switch before unscrewing or installing the water bottle.

**E. Atomizing regulating valve**

Adjusts the spray effect to the working handpieces.

**F. The first handpiece water regulating valve**

Adjusts the volume of water to the first working handpiece.

**G. The second handpiece water regulating valve**

Adjusts the volume of water to the second working handpiece.

**H. The third handpiece water regulating valve**

Adjusts the volume of water to the third working handpiece.

**I. The first handpiece air regulating valve**

Adjusts the volume of air to the first working handpiece.

**J. The second handpiece air regulating valve**

Adjusts the volume of air to the second working handpiece.

**K. The third handpiece air regulating valve**

Adjusts the volume of air to the third working handpiece.

**L. S.E. Switch**

**M. Handpiece pressure gauge**

The pressure to the handpiece can be read on the pressure gauge located on the right front panel of the unit. You can slide left and right to adjust the pressure of the working handpiece.



## O.Air cylinder cup

A sponge is placed inside to eliminate noise of the working handpiece and eliminate odor.

### 5.3.2 Use and operation of adjustable rack



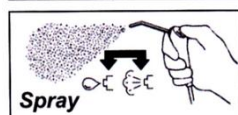
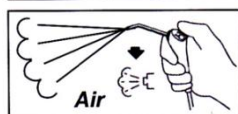
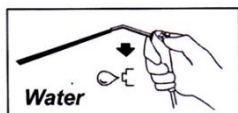
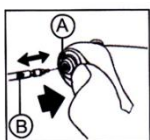
1. The angle of the instrument tray rack can be 90 degree rotation.

2. Placing the instruments in their holders

Every handpiece has a corresponding switch on the holder. When the handpiece is removed from its holder, the switch will open the pilot valve and the removed handpiece will be unlocked.

Therefore, always make sure that all handpieces are placed in the correct instrument holders. If any handpieces are placed in the wrong holders, the removed handpieces will not be activated.

### 5.3.3 Three-way syringe



#### Removing/attaching the tip

1. Press the ring with your thumb (A).
2. Remove/attach the tip (B).
3. Loosen your thumb, and the ring automatically resets. The tip will be locked when it is attached onto the three-way syringe.

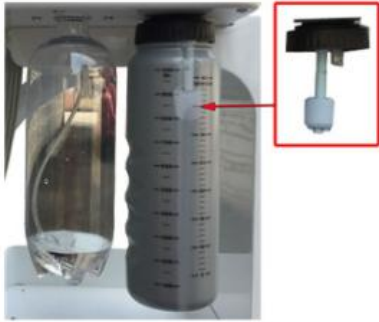
#### Operating the three-way syringe

- Press the water button and water flows out the tip.
- Press the air button, and air flows out the tip. The three-way syringe is then used as a chip blower.
- Press the water and air buttons simultaneously, and water sprays from the tip.



#### 5.3.4. Water Bottle

The water bottle is for the three-way syringes and handpieces on the instrument tray. It can be filled with pure water or disinfectant. Turn the air switch of the handpiece to ON, then turn on the water bottle switch, and it will change to get the pure water or the disinfectant ready.



#### 5.3.5. Sewage Bottle

1000ML, build-in float Valve. When the sewage reaches 900ML, the S.E. will automatically stop working. Please turn off the S.E. switch (red marked button) before draining the bottle, otherwise the sewage will overflow.

## 6. Routine Adjustments

### 1. Water Coolant Flow Adjustment

Each handpiece has an individual water control valve that regulates the water flow to the handpiece. Install and run a handpiece at a midrange speed. Turn the appropriate water coolant flow control clockwise, until it seats softly. Begin turning counterclockwise until a fine mist is visible. This will provide excellent cooling while the bur is cutting. (Note that each water control valve on the control panel controls its respective handpiece located on the rotating arm.)

### 2. Air Control Adjustment

A air control valve is provided to turn air to the handpiece, and to control the flow. Turn the coolant air control valve clockwise until it seats softly. Begin turning counterclockwise until the desired amount of air is achieved.

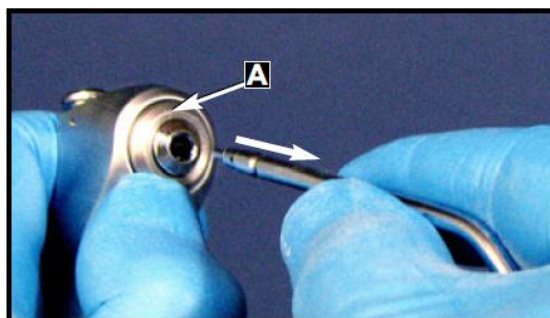
## 7. Sterilization And Maintenance

### CAUTION FOR ALL STERILIZATION:

- Do not exceed 135° C or 275° F
- Do not submerge in any solutions
- Do not use ultrasonic cleaners

### 3-way Air/water Syringe:

The syringe features quick-change autoclavable tips: To remove a tip, press on the locking collar **A** surrounding the tip socket and pull the used tip straight out of the socket.



To insert a new tip, press locking collar and push tip into socket as far as it will go. Release ring and gently tug on tip before using to ensure that tip is securely locked into socket. Syringe Tip Sterilization:

- 1) Remove contaminated syringe tip.
- 2) Remove all visible signs of contamination before autoclaving.
- 3) Autoclave tip at 132° C (270° F) for ten minutes.
- 4) Sterilize between each patient use.

**NOTE:** Since only the tips can be autoclaved, it is recommended that the air/water syringe be bagged with a disposable, single-use plastic sleeve between each patient use.

**Water Lines:**

Disinfect the water lines weekly. Prepare a 1:10 bleach solution (1 part household bleach to 9 parts water). Purge all water lines. Fill water bottles with bleach solution. Run bleach solution through all lines. Allow bleach solution to stand in lines for 10 minutes but no longer: Immediately remove water bottles and discard the bleach, then flush water bottles and all lines thoroughly with clean water. Purge all water lines with air and leave dry until next clinical use.

**CAUTION:**

Do not run saline solutions through the water system -- saline will corrode the water filters.

## 8. Troubleshooting

	Problem	Reason	Check	Tips
1	The power switch can not be turned on.	The power is not switched on.	Check if the power supply is connected correctly.	Connect the power supply correctly.
		A fuse is blown.	Check if the fuse is broken.	Replace the fuse.
2	Compressor can not be started up.	The wire to the power supply has fallen off or an electronic component is loose.	Check the patch board and the electric connection of the compressor.	Connect the wire according to circuit diagram.
		The temperature of air compressor is too high.	Touch the shell of the air compressor by hand.	Cool the air compressor, use it until it is cooling.
		The forward valve fails to work.	Take off the tube which connects the inlet of the valve, check if there is air leakage.	Clean the valve.
3	The air compressor keeps working and can not be stopped.	The unloading valve on the pressure switch fails to function.	The unloading valve is exhausting when the air compressor is working.	Remove the unloading valve, exchange O ring, cleantube.
		Leakage in the tube.	Watch and listen to the flow, or check it with suds.	Avoid leaking air.
		Air leakage in automatic drainage of filter valve.	Check if there is air leakage in automatic drainage of filter valve.	Avoid leaking air.
4	The Avoid leaking air compressor stops working, air pressure decrease immediately, compressor starts up again.	Lots of leakage in the tube.	Watch and listen to the flow, or check it with suds.	Avoid leaking air.
		The leakage in the forward valve connects to the gas can.	No other air leakage, the pressure switch keeps working continuously.	Remove the valve replace the oring and clean the valve core.
5	Electriferous shell.	The earth is not connected properly.	Check the shell with the electric pen.	Connect the earth wire properly.
		The unit has been affected with damp.	<5MΩ Check with multimeter. Insulating resistance: <5MΩ	Use the device until it is dry.

6	Can not start up the compressor with the compressor shaking and noisy.	The power pressure is too low.	<198V Check the working power pressure with the multimeter. Power pressure <198V	Make the pressure rise or use manostat.
7	The handpiece can not spray water while rotating.	The water in water tank has been used up.	Check the water volume of the water tank.	Replace the tank.
		Air & water distributing valve is blocked.	If the 3-way syringe sprays water.	Regulate the Air & water distributing valve or clean the valve core.
8	The handpiece leaks water when not in operation.	Air & water distributing valve fails to function.	Remove one side of the valves in handpiece, take out faucet, spring and valve core.	Replace the valve core.
		The foot switch is not restored.	The pressure gauge does not decrease when foot switch is put up.	Loosen the cover of foot switch, make it act freely.
9	Air and water leakage in water and air adjustor	The valve core is screwed too far in or out.	Remove and check the component.	Screw the valve core properly.
		O-ring is damaged.	Remove and check the valve core.	Replace O ring.
		Thread connector is loose.	Check if there is leakage in the thread connector.	Tighten the thread connector.

## 9. Specifications

Cart Size:	<ul style="list-style-type: none"><li>● The height from the upper tray to the floor is 41" (105CM).</li><li>● The height from the upper tray to The lower tray is 16"(41CM).</li><li>● The tray size is L 19"(50CM)*W 11"(30CM).</li><li>● Option operation Lamp System: The length of the cross arm is 27"(70CM) The length of the rocker arm is 23"(60CM) The height from the cross arm to the floor is 69"(177CM)</li></ul>
Shipping Crate Size:	26 ""*26""*47""(65*65*119CM)
Cart Weight:	65KG
Shipping Crate Weight:	82KG
Power Source:	AC220V,50HZ/110V,60HZ
Power Rating:	550W
Air Pressure:	0.55-0.80Mpa/5.5-8.0bar
Water Pressure:	0.20-0.40Mpa/2.0-4.0bar

## 10. Warranty

MCART<sup>TM</sup> warranties pneumatic components against defects in materials for a period of 2 years unless specified differently. Electronic components are subject to a 1 year warranty. Labor is not covered under warranty.

### Exclusions

The warranty does not cover:

- I. Damage resulting from improper installation or maintenance, accident, misuse, abuse, neglect, alterations, freight damage, or natural disaster.
  - II. Damage resulting from the use of chemicals and process for cleaning, disinfecting, or sterilization.
  - III. Normal service items such as (but not limited to): light shields, light bulbs, filters, O-rings, handpiece tubing, and water cartridges. Also, normal wear and tear is not covered.
  - IV. Consumable products held beyond the expiration date shown on the packaging.
- Failure to follow the products' Instructions for Use (operation and maintenance instructions) will void the warranty.





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