stomdevice

MOJAVE® LT3

Dry Vacuum System

User's and Installation Manual



AIR TECHNIQUES equipped for life®

ISO 13485 CERTIFICATION™ Intertek

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

TABLE OF CONTENTS

Section	Page
Congratulations	3
Safety Summary	3
Purpose of this Manual	3
Sizing Guide	4
Specifications	4
Product Description	5
Installation Information	7
Installation	10
Electrical Connections	12
Operating Information	14
Touch Screen Controls	16
Maintenance	21
Accessories/Options	23
Troubleshooting	24
Warranty	26
On-Line Warranty Registration	26

LIST OF ILLUSTRATIONS

Figure	Title	Page
1	MOJAVE LT3 Key Parts Identification	5
2	MOJAVE LT3 Functional Connection Points	6
3	MOJAVE LT3 Vacuum Pump Dimensions	7
4	MOJAVE LT3 System Floor Plan	9
5	MOJAVE LT3 Plumbing Connection	10
6	MOJAVE LT3 Detail Plumbing Connection	11
7	MOJAVE LT3 Power Connection	12
8	Remote Switch Connection to Main Board	12
9	3-Wire and 4-Wire Remote Switch Connection	13
10	MOJAVE LT3 Front Panel Controls and Indicators	14

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

stomdevice

CONGRATULATIONS

Congratulations on the purchase of your new **MOJAVE LT3** Dry Vacuum System that provides state of the art vacuum technology. This vacuum system is designed for reliable operation in the modern dental facility. The system uses a 100% water-less Vacuum Pump to produce the high-volume air flow required for multiple simultaneous users while the Air/Water Separator ensures that no liquids enter the pump.

The **MOJAVE LT3** incorporates an efficient energy management system. This is accomplished by adding a Variable Frequency Drive (VFD) to the Vacuum Pump. This system automatically adjusts the frequency of the pump to maintain the required vacuum level depending on the needs of your dental facility. With this balanced system, each user always has the flow rate necessary to do the job while conserving electricity and prolonging the life of your pump.

SAFETY SUMMARY

Use of the **MOJAVE LT3** not in conformance with the instructions specified in this manual may result in permanent failure of the unit.

WARNING: To prevent fire or electrical shock, do not expose this equipment to rain in or moisture.
All user serviceable items are described in the maintenance section.

Manufacturing date code on serial number label is in the format Month YYYY.

ATTENTION USERS:

Markings. The following terms or symbols are used on the equipment or in this manual to denote information of special importance:


Alerts users to important Operating and Maintenance instructions. Read carefully to avoid any problems.


Warns users that uninsulated voltage within the unit may be of sufficient magnitude to cause electric shock.

I ON
O OFF
Indicates the ON and OFF position for the Equipment power switch.



MEDICAL ELECTRICAL EQUIPMENT

WITH RESPECT TO ELECTRICAL SHOCK, FIRE, MECHANICAL AND OTHER SPECIFIED HAZARDS ONLY
IN ACCORDANCE WITH UL 60601-1, CAN/CSA C22.2 No. 601.1
66CA


Warns users of hot surfaces. There is a danger of burns. Work near these surfaces only after they have cooled down.


Identifies the name of the manufacturer.


Indicates date of manufacture


Indicates protective Earth Ground for the Equipment power switch.


Air Techniques, Inc.
1295 Walt Whitman Road
Melville, New York, USA 11747- 3062

PURPOSE OF THIS MANUAL

This manual provides installation, operation and maintenance instructions for the support of the **MOJAVE LT3** Dry Vacuum System, consisting of one LT3 Dry Vacuum Pump and Air/Water Separator assembly housed on a chassis. Review and follow the guidelines included in this manual to ensure that the system provides the highest level of service.

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

SIZING GUIDE

To ensure optimum operation, the demands should not exceed the number of vacuum users shown below. The chart lists the number of simultaneous High Volume Evacuators (HVEs) and Saliva Ejectors (SEs) that can be used by the **MOJAVE LT3** system.

Recommended Number of Simultaneous HVE/SE Users

HVE		SE
3	+	0
2	+	2
1	+	4
0	+	6

Note: 1 HVE = 2 SE's
1 HVE = 2 Nitrous Scavengers

SPECIFICATIONS

Pump Electrical Specifications	LT3
Voltage (Volts AC ± 10%)	220
Full Load Current (Amps AC)	15
Input Frequency (Hz)	50/60
Preset Vacuum Level (InHg)	8
Horsepower	1.1 kW or 1.5 HP

System Environmental Conditions (All Systems)

Operating Temperature	50 to 105°F or 10 to 40°C
Storage and Transport Temperature	32 to 158°F or 0 to 70°C
Operating Relative Humidity	80%, no condensation
Storage and Transport Relative Humidity	90%, no condensation

UL60601-1 CLASSIFICATION

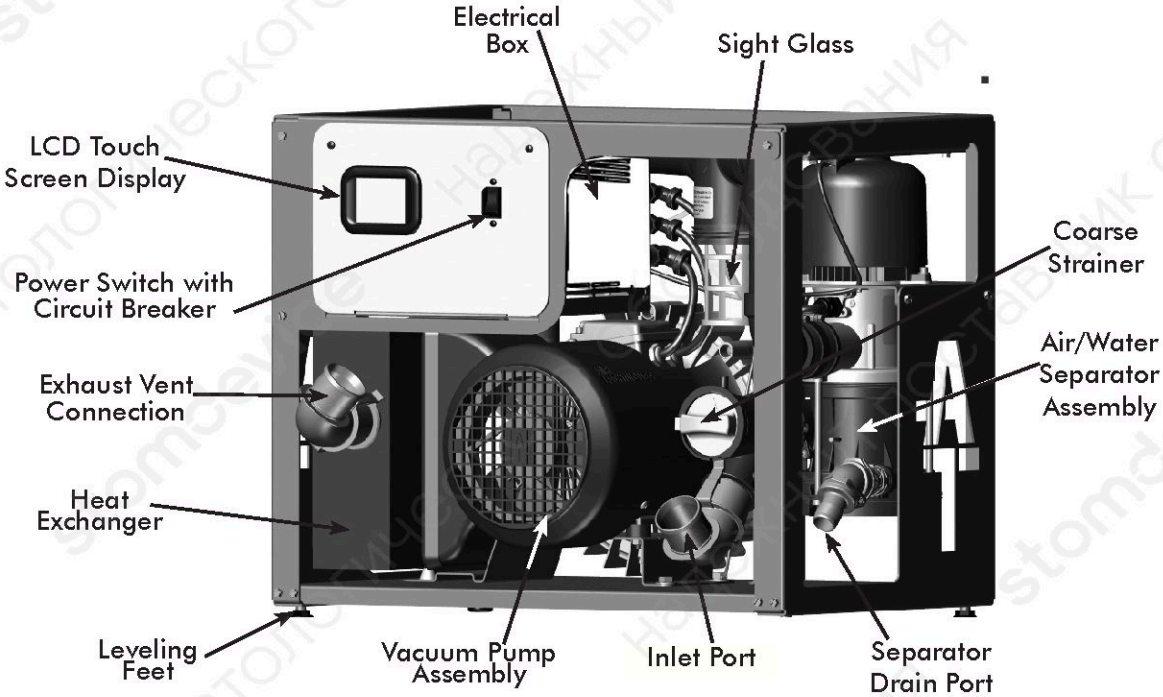
Protection against electrical shock (5.1, 5.2) Class I, Transportable, Continuous Operation. No applied parts. Protection against ingress of liquids-Ordinary Equipment not suitable for use in the presence of flammable anaesthetic mixture with air or with oxygen or nitrous oxide.

All MOJAVE LT3 vacuum pumps comply with NFPA 99C level 3 requirements.

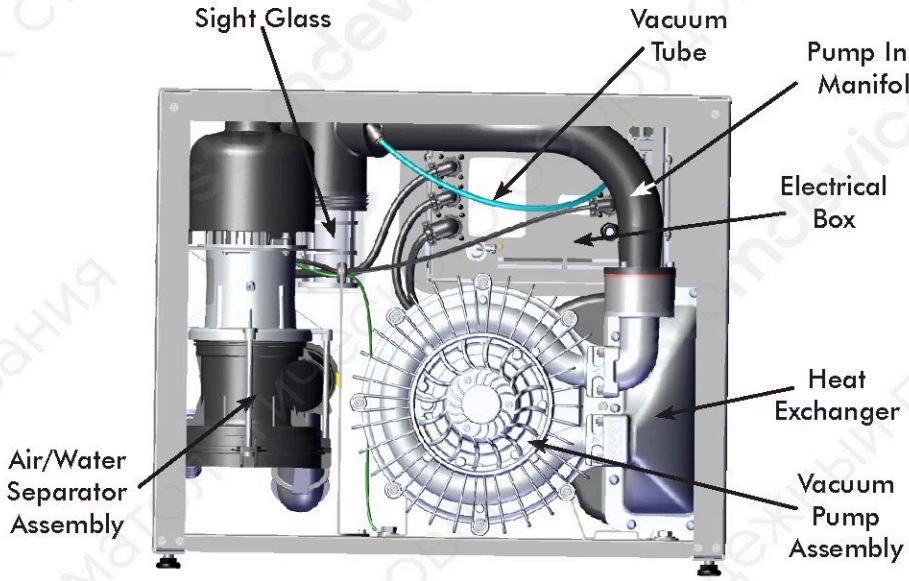
https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

MOJAVE LT3 consists of the major components shown by Figure 1.

- A single-stage pump, where all of the wetted metal parts are nickel plated or stainless steel.
- A metal electrical enclosure that houses a VFD (Variable Frequency Drive), circuit breaker, and PCB. A metal chassis for mounting components.
- An aluminum heat exchanger to cool the exhaust air from the pump before it travels through the exhaust vent.
- The LCD touch screen provides the operational user interface for the **MOJAVE LT3** system.



Front View Parts Location



Rear View Parts Location

Figure 1. MOJAVE LT3 Key Parts Identification

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

PRODUCT DESCRIPTION

MOJAVE LT3 Dry Vacuum System Operation.

1. Air, water, and solids from the treatment room enter the system via the Inlet Port and are pulled into the mechanical air/water separator assembly.
2. Air is then expelled to the outside vent through the pump heat exhaust
3. Liquids and solids exit through the drain line of the separator.
4. The LCD touch screen provides the operational user interface for the **MOJAVE LT3** system. It monitors and displays the frequency, vacuum level, RPM reading and temperature as well as recording the run time in hours.

Automatic Vacuum Adjustment.

When an instrument (suction tip) has been opened, the system senses an increase in vacuum demand and responds by increasing the speed of the motor.

Conversely, when an instrument (suction tip) has been closed, the system reads the elevated vacuum level and responds by slowing motor operation down due to decreased vacuum demand.

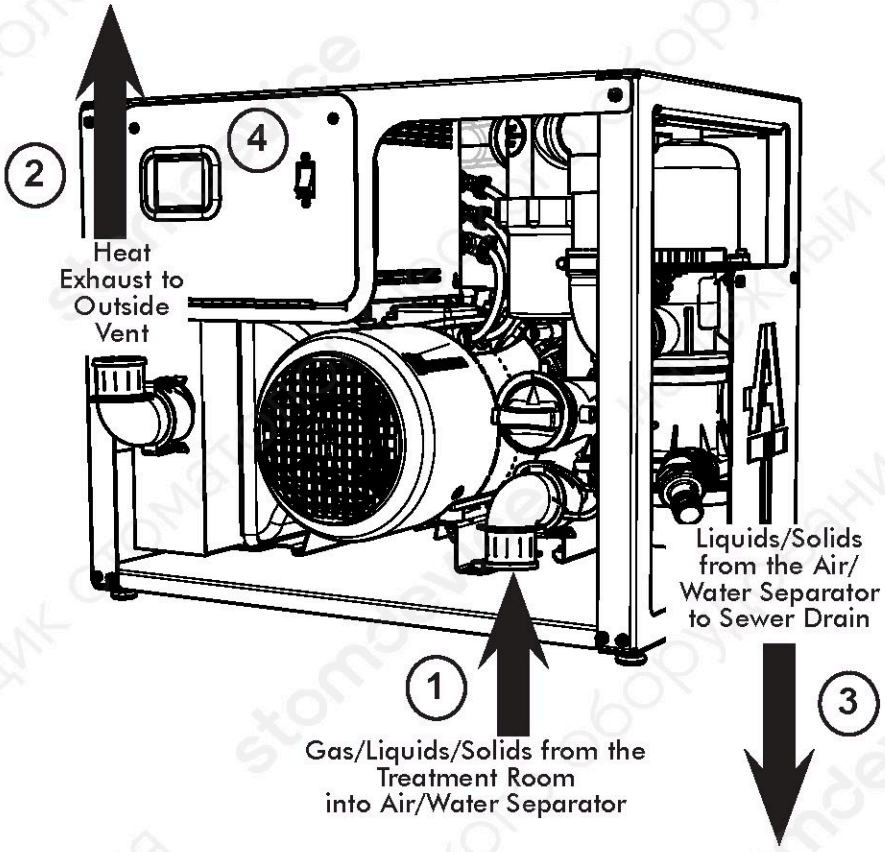


Figure 2. MOJAVE LT3 Functional Connection Points

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

stomdevice

General. For new installations it is recommended to follow the following guidelines:

- ❑ Make sure to install the system in accordance with all local electrical and plumbing codes.
- ❑ The suction line should not have any sharp right angle bends and must be sloped a minimum of ¼ inch for every 10 feet toward the **MOJAVE LT3**.
- ❑ The drain on the base of the air/water separator must be connected to a vented or an open floor drain capable of handling 5 gallons in 1 minute. Drain tube size 1 inch.
- ❑ The drain line should be a short run with a maximum rise of 3 feet. Avoid any sharp right angle bends.
- ❑ Make sure to install the supplied exhaust vent assembly to the bottom end of the facility vent line.
- ❑ The vent should be sloped ¼ inch per 10 feet towards the pump. Vent lines must be capable of handling vapors and liquids.
- ❑ The outside vent must be protected from rain and animals.
- ❑ A flexible air exhaust hose is provided to connect to the 1½ inch diameter vent pipe and heat exchanger. 1½ inch no-hub adapter is provided to secure hose to heat exchanger and pipe.

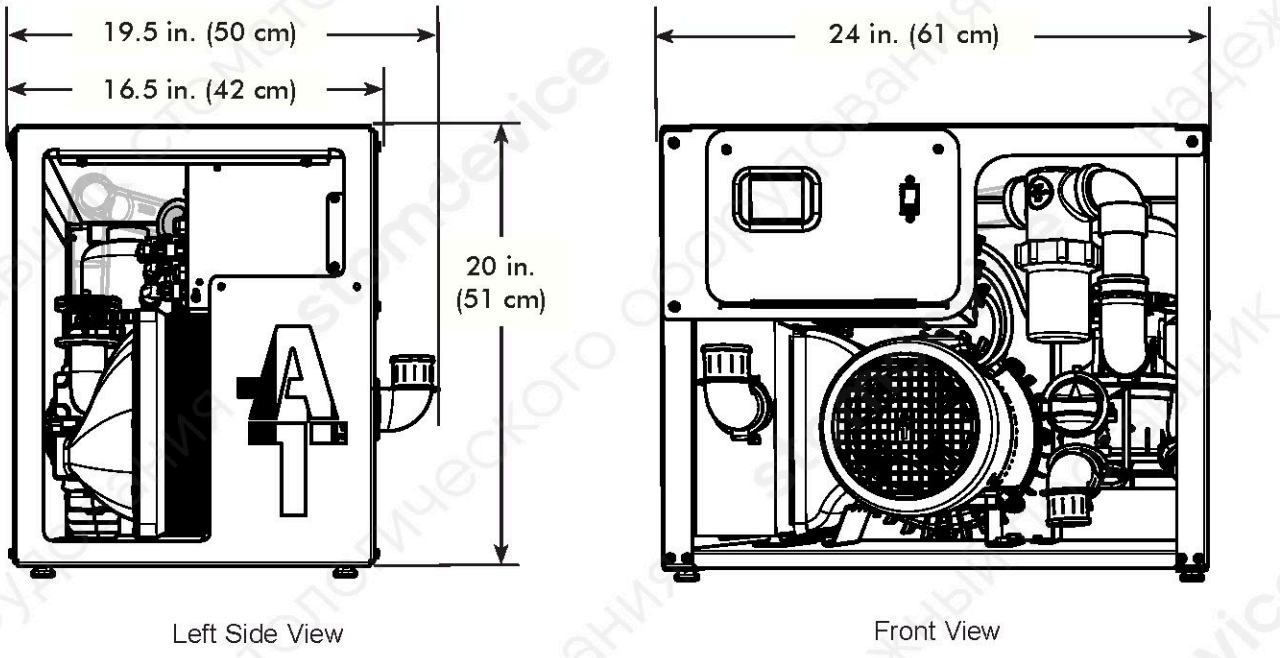


Figure 3. MOJAVE LT3 Vacuum Pump Dimensions

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

Site Requirements

Electrical	Requirement
Voltage Rating Volts AC	220 Volts, Single Phase AC, 50/60 Hz
Voltage Minimum/Maximum	198/242 Volts AC
Wire Size AWG Minimum Gauge	#12 AWG
Minimum Circuit Breaker Rating	20A
Incoming Power	Hard wire Connection (unit is supplied a 6 foot BX cable)
Remote (Low Voltage Wiring)	#18 AWG Wire Connection between the pump and the Remote Switch Panel .
Plumbing	**Requirement**
Exhaust Vent Pipe Using Heat Exchanger	1 ½" PVC Sch. 40
Minimum Suction Line Pipe	1" PVC Sch. 40 * (See Branch Line Pipe Below)
Maximum Suction Line Pipe (See note 2)	1 ½" PVC Sch. 40
Riser Pipe	½" PVC Sch. 40
Vacuum Line Termination	1 ½" FNPT
Branch Line Pipe	Size requirement of Branch piping differs by the number of treatment rooms being serviced. * Up to two rooms; use 1" PVC Schedule 40. Three to six rooms; use 1 ½" PVC Schedule 40.
Drain Hose	1" Schedule 40

NOTES

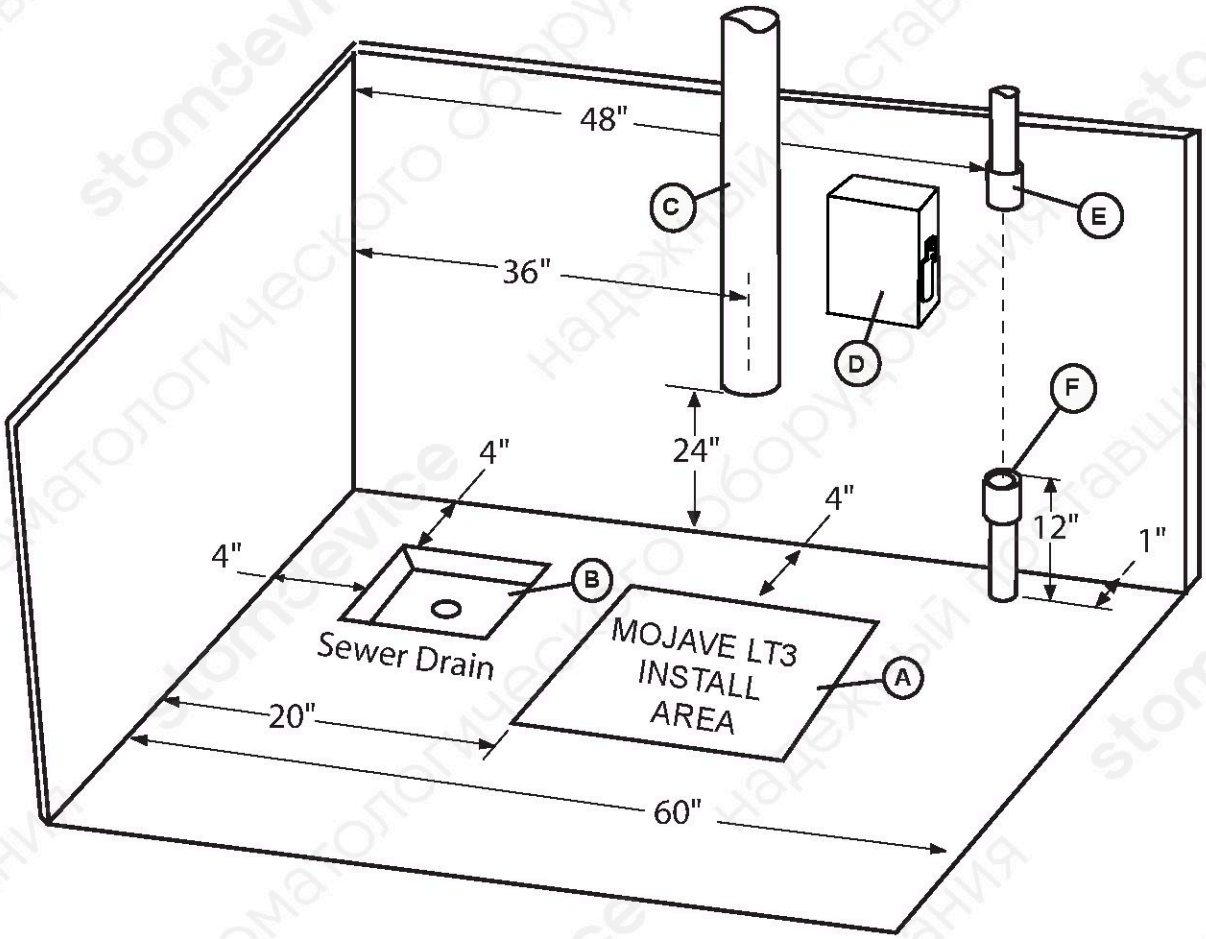
1. Recommended for all new installations.

2. Use maximum internal diameter for the main line when preparing any new installation.

Recommended Space Requirement	
Unit Dimensions:	
Height	20 in. (51 cm)
Width	24 in. (61 cm)
Depth	16.5 in. (42 cm)

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

Installation Layout Space. Figure 4 shows the requirements for the installation of MOJAVE LT3. Please note that all units are shipped with leveling feet set to lowest position. Heights can be increased by 1 inch by adjusting the leveling feet. Refer to Figures 5 and 6 for connection details.



Installation Notes.

A. **PUMP INSTALLATION SPACE -** Area for **MOJAVE LT3** pump in typical installation.

B. **SEWER DRAIN -** Provide a drain for the removal of waste liquids from the Air/Water Separator assembly. Use an open drain pipe (1 ½ inch P-Trap with 1 inch air gap or floor sink) or a closed vented drain. See Figure 6.

C. **HEAT EXHAUST -** Refer to Figure above and see Plumbing Requirements for the exhaust vent line required for **MOJAVE LT3**. Schedule 40 pipe can be used on **MOJAVE LT3**.

D. **PUMP ELECTRIC SERVICE -** The **MOJAVE LT3** pump is wired directly with a dedicated 220V, 20 AMP, single phase 50/60 Hz circuit. If Main Circuit panel is not located in equipment room, a disconnect box with approved ground is needed for each pump. Disconnect boxes should be mounted no more than 3 feet of the installation center line.

E. **OVERHEAD INSTALLATION VACUUM LINE -** See Plumbing Requirements for **MOJAVE LT3** connection.

F. **SUB FLOOR INSTALLATION VACUUM LINE -** See Plumbing Requirements for **MOJAVE LT3** connection.

Figure 4. MOJAVE LT3 System Floor Plan

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

Important: Make sure to efficiently use space by making connections as short and direct as possible to meet your particular site requirements.
Make sure that all hose connections are straight and secure without any sharp bends or kinks.
Since the vacuum hose is rigid, make sure not to stress connections especially at the pump inlet.

MOJAVE LT3 Connection Procedure. Using industry standard techniques, make the three connections between the LT3 with supplied components from accessory kits Refer to Figure 5 for the connection diagram and perform the following procedure.

1. **Treatment Room Suction Line to Pump Inlet Connection**. Refer to Figure 5, item (1) .
   a. Install one connector adapter to the pipe (either overhead or sub floor) from the operatory.
   b. Install the connector adapter into the flexible coupling connector on the LT3.
   c. Install the 1½" ID, clear hose cut for installation between the operatory suction line and pump inlet and secure with two no-hub adapters.
2. **Heat Exhaust Connection**. Refer to Figure 5, item (2) for the location of the vent hose connection at the pump heat exchanger output and the facility vent line. Make the heat exhaust connection by performing the following procedure.
   a. **Exhaust Vent Assembly Installation**. Refer to Figure 6 and install the Drip Leg and Exhaust Vent Assembly to the bottom end of the facility vent line. Install a length of 1/4 inch OD Urethane Tubing (P/N 51453) between the vent condensation drain port and facility sewer drain.
   b. **Heat Exhaust Vent Connection**. As shown by Figure 6, connect the vent hose between the pump heat exchanger output and the facility vent line. Secure with no hub adapters provided by the accessory kit.

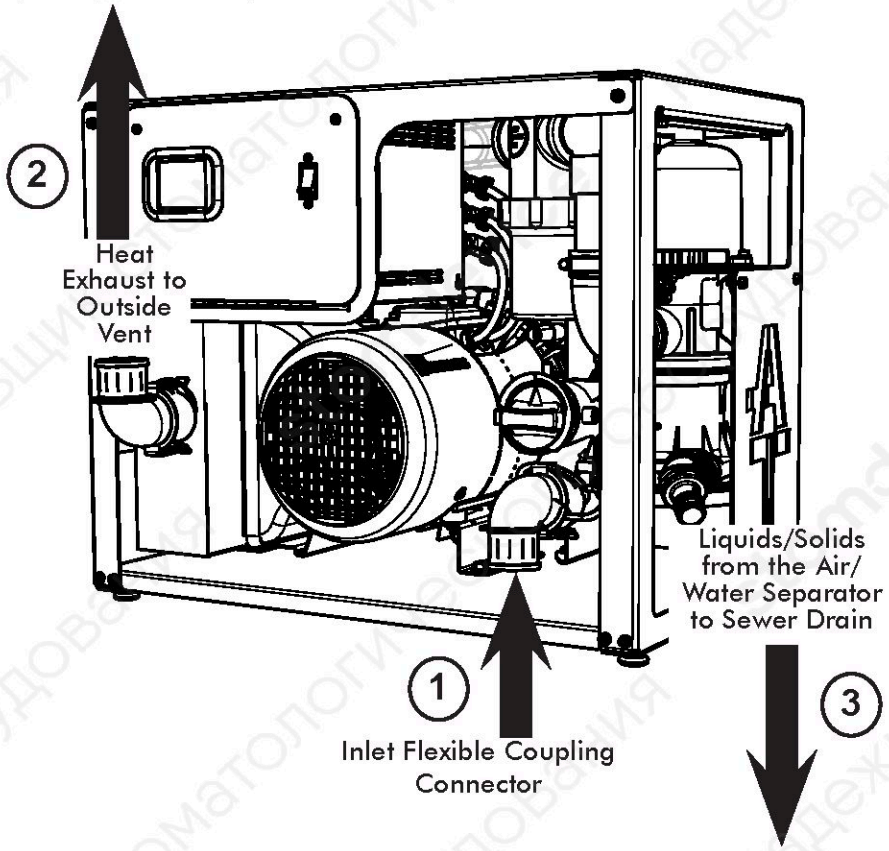


Figure 5. MOJAVE LT3 Plumbing Connection

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

3. **Drain to Facility Sewer Connection**. Refer to Figure 5, item (3) for the location of the Air/ Waster Separator drain. Use the 1-inch hose provided to connect the separator drain to the facility sewer. As shown by Figure 6, the sewer connection can be made as either a closed vented drain or open drain pipe method.
4. **System Electrical Connections**. Refer to the Electrical Connections section (See Figure 7.) and connect the pump to 220V facility power. Refer to Figures 8 and 9 when connecting the low power remote switch.

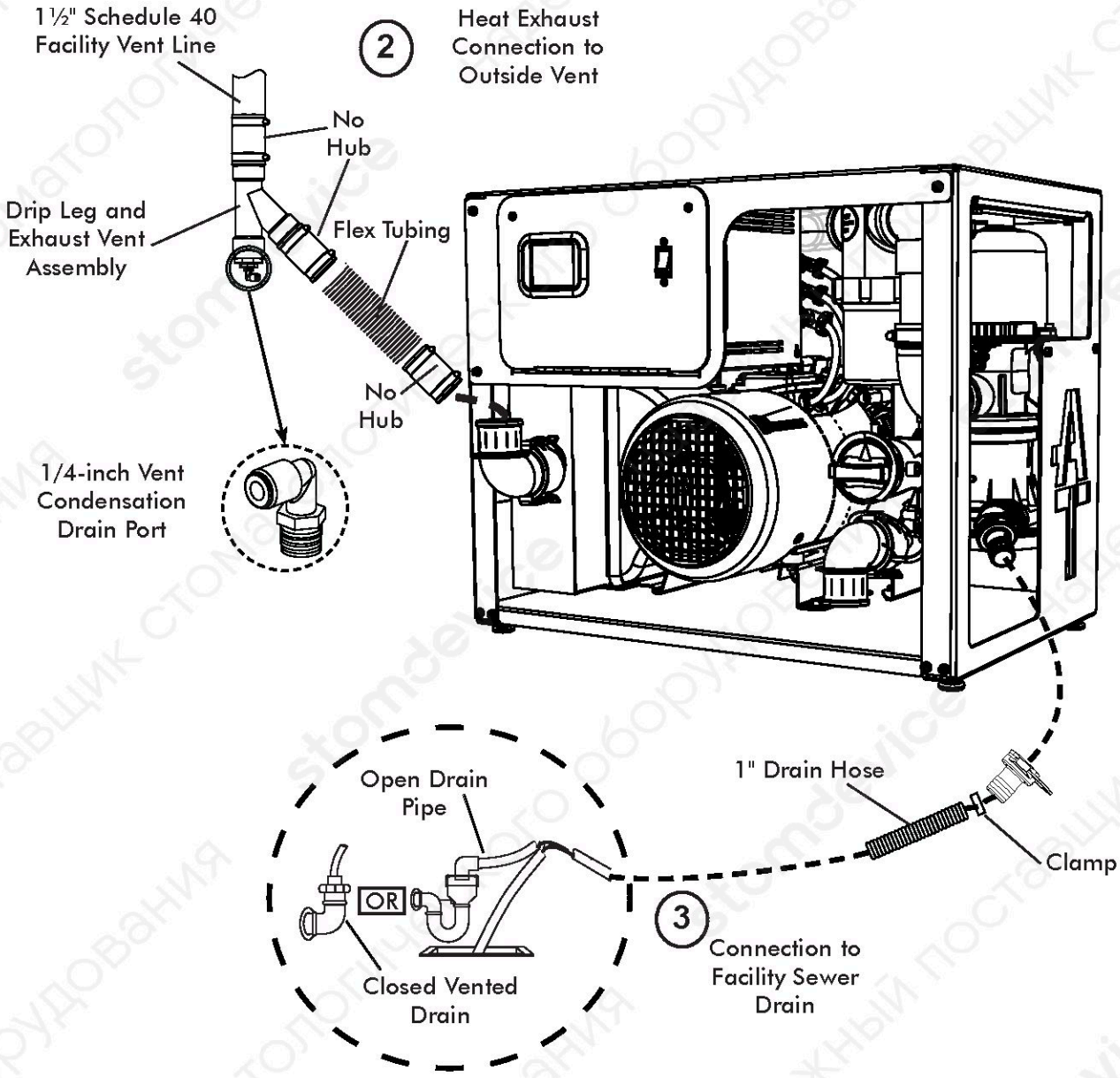


Figure 6. MOJAVE LT3 Detail Plumbing Connection

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

ELECTRICAL CONNECTIONS

Remove all power to the system prior to working within the electrical box. Contacting high voltage can cause serious injury or even death.

All systems must be wired directly from an electrical box that complies with local electrical codes.

MOJAVE LT3 Pump Direct Power Connection.

Each unit is wired directly to an dedicated 220V, 20 AMP single phase 50/60 Hz circuit via a disconnect box with approved ground. Disconnect boxes should be mounted no more than 3 feet of the installation center line.

Figure 7 shows the wiring of the electrical BX cable used to connect the LT3 directly to facility input power.

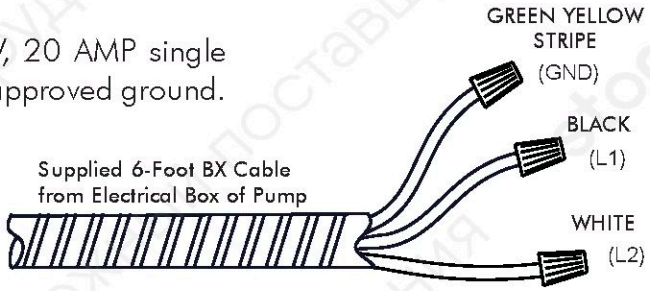


Figure 7. MOJAVE LT3 Power Connection

Remote Switch Connections.

As shown by Figure 8, connections are made via connectors J4 and J6 of the main board.

VDC Connections.

Make the 6 VDC connections shown by Figure 9, View A, for Remote Panel Switch #53202-1 provided by Air Techniques. Make the 24 VDC connections shown by Figure 9, View B, for Remote Panel Switch #53201-1. When using a switch not provided by Air Techniques, all remote system status indication is lost.

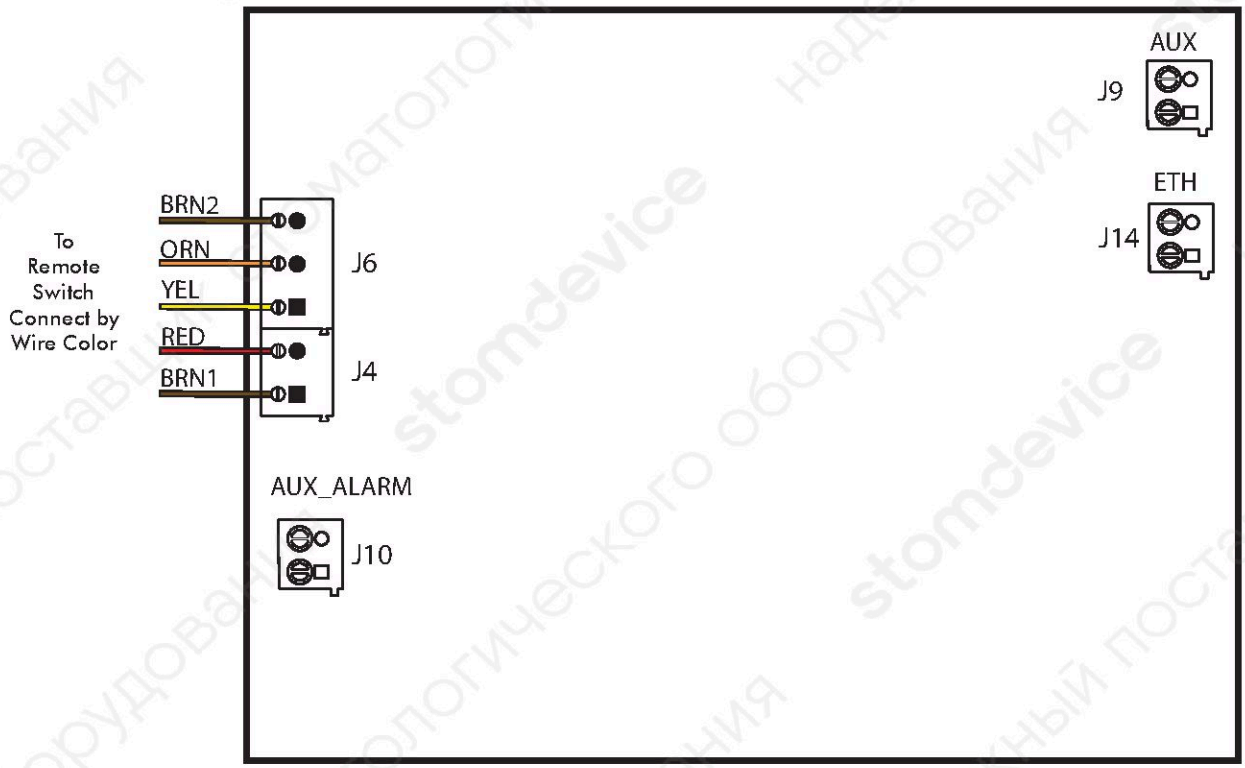
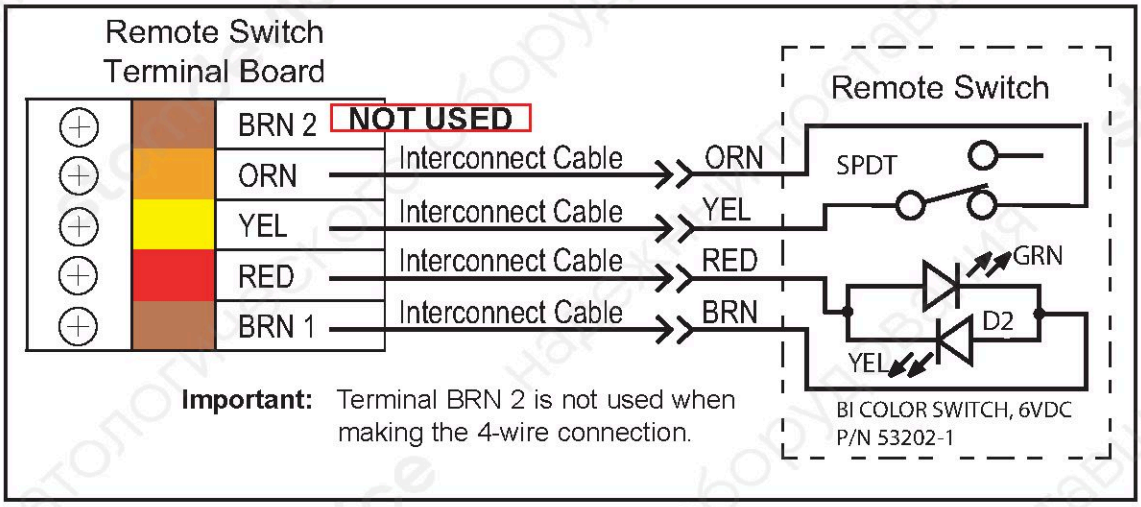


Figure 8. Remote Switch Connection to Main Board

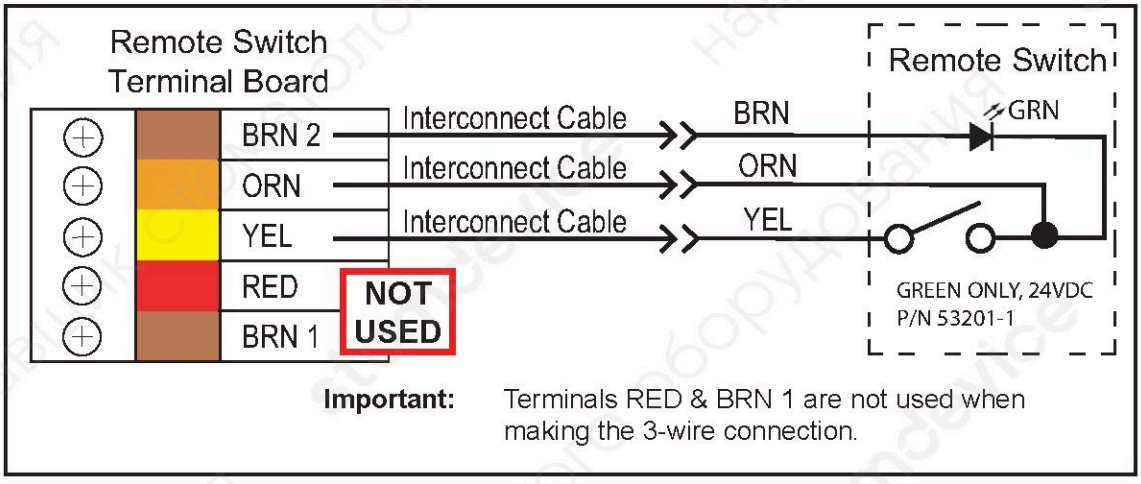
https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

stomdevice

Note: Use 18 Gauge for interconnect cable to connect between unit and remote switch.



View A. 4-Wire Green & Yellow Indicators 6 VDC Remote Switch Installation



View B. 3-Wire Green Indicator Only 24 VDC Remote Switch Installation

Figure 9. 3-Wire and 4-Wire Remote Switch Connection

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

OPERATING INFORMATION

General.

- The vacuum level is factory preset at 8 InHg. This vacuum set point is adjustable from 8.0 to 10.0 inHg in increments of 0.5 inHg via the touch screen.
- System operation is automatically controlled. Parameters can be adjusted via the touch screen
- The system is capable of running continuously and should be put into standby mode when not in use.
- The system may be turned ON or put into standby mode from a single, convenient location within the dental office using an optional Remote Control Panel switch.

Note: The motor **power** circuit breaker must be kept in the ON position and should not be used as a switch for the unit operation.

Pump Power On/Off Switch with Circuit Breaker.

As the Mains power disconnect of the pump, this combination switch and circuit breaker controls application of the connected input power and protects the pump from overloads and short circuits.

When set to the ON (1) position, it applies input power to the internal electronics.



Figure 10. MOJAVE LT3 Front Panel Controls and Indicators

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

stomdevice

All **MOJAVE LT3** units can be operated from either the LCD touch screen or an optional remote switch. The motor **Power** circuit breaker on the face of the compressor control box must be set in the **ON** position whether using the touch screen or the optional remote switch. The **MOJAVE LT3** is designed for continuous operation. Operate the **MOJAVE LT3** by performing either the touch screen or remote switch procedure below.

START UP BY TOUCH SCREEN

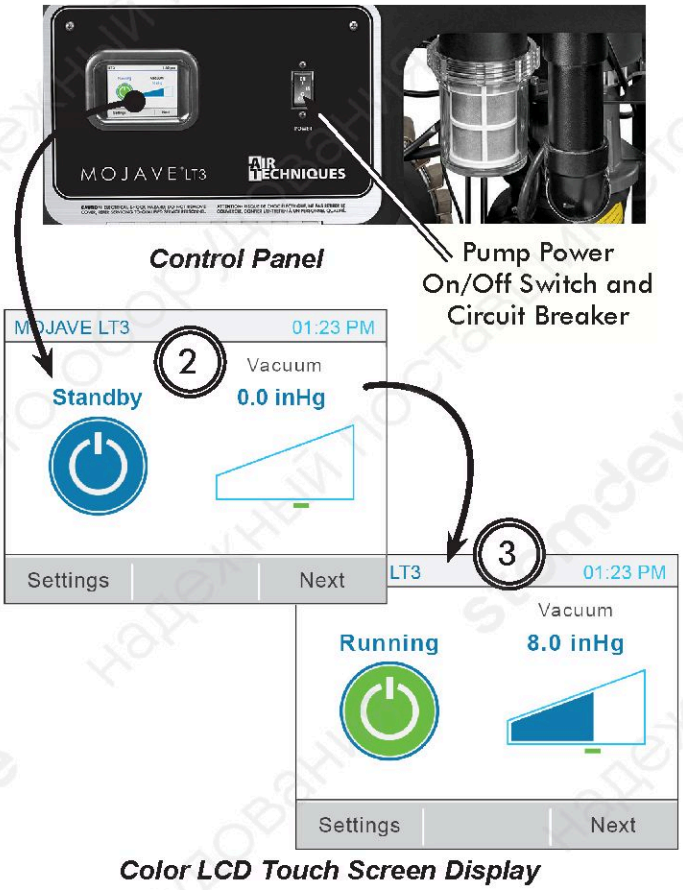
1. Set the motor **Power** circuit breaker in the **ON** position.
2. Observe that the color touch screen illuminates and depress the blue **Standby** button.
3. Observe that the **Standby** button changes to a green **Running** button, that the unit is running and the **Vacuum** widget shows increasing pressure.

START UP BY OPTIONAL REMOTE SWITCH

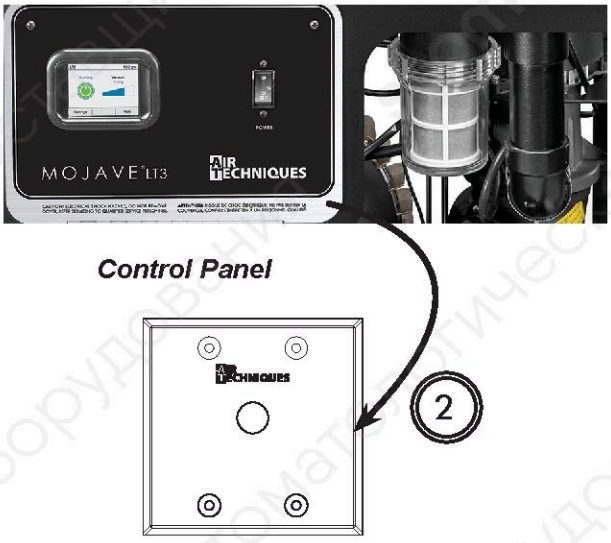
1. Set the motor **Power** circuit breaker to the **ON** position.
2. Observe that the when in **Standby** with no errors the push button indicator is extinguished.

   Note a: Depending on the site installation, the remote switch can be either a Bi-Color LED 6VDC switch (included) or a single LED 24 VDC switch.

   Refer to the tables below for the LED conditions for each switch during operation.
3. Depress the push button switch and observe that the associated indicator illuminates as listed for the corresponding switch.



Color LCD Touch Screen Display



Optional Remote Control Panel

6V DC Bi-Color Green / Yellow Indicators (See Note a.)		
Bi-Color LED Condition	**Switch Position**	**Condition Description**
None	Out	Standby, No errors
Solid Green	In	Running, No errors
Flashing Yellow	Out	Standby, Error present
Alternating Green / Yellow	In	Running, Error present

24V DC Green Indicator Only (See Note a.)		
Green LED Condition	**Switch Position**	**Condition Description**
None	Out	Standby, No errors
Solid Green	In	Running, No errors
Flashing Green – Slow	Out	Standby, Error present
Green – Fast	In	Running, Error present

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

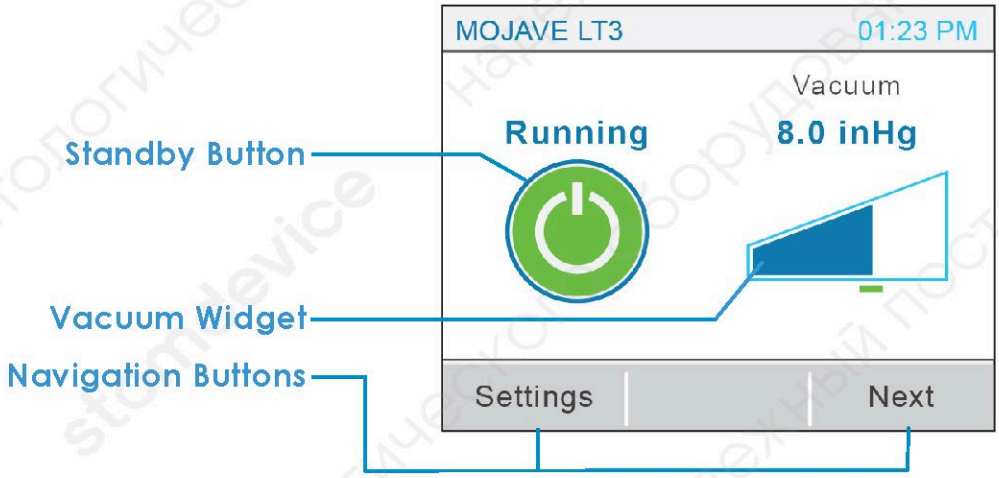
TOUCH SCREEN CONTROLS

Note: The motor power circuit breaker must be kept in the **ON** position to operate the color LCD touch screen display. See Operating Information on page 15.

All **MOJAVE LT3** units have a color LCD touch screen display located on the front control box panel. This display is used to start the unit and show system operating status. It also serves as an input for controlling operation and adjusting system parameters.

The display shows two screens during normal operation; a Home Screen and a Settings Screen. The Home Screen is used to start and monitor operation of the **MOJAVE LT3**, while the Settings Screen allows changes to operating parameters.

The screens are comprised of operation Buttons, Navigation Buttons and Widgets as described below.



Operation Buttons

Standby Button - Home Screen Standby Button that when blue, indicates the system is in the "**Standby**" mode. When pressed, this switch starts the compressor operation.

Running Button - Home Screen Standby Button that turns green to indicate the system is in the "**Running**" mode. When pressed, this switch stops **MOJAVE LT3** operation and returns to the "**Standby**" (blue button) mode.

Error Button - Home Screen Standby Button that turns red to indicate an error is present causing the **MOJAVE LT3** to shut down operation.

Navigation Buttons - located on the bottom of the screen these buttons allow the user to migrate within a screen by going to the next screen level or to transfer between the Home Screen and a Settings Screen.

Widget - an element of a graphical user interface (gui) that is used to display information during vacuum operation. The Home Screen normally shows the Vacuum Widget while the Motor Frequency, Separator RPMs, Voltage and Temperature widgets are accessed by pressing the **Next** Navigation Button.

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

1. HOME SCREEN

a. STANDBY BUTTON / VACUUM SCREEN

i. **Standby Button**
- Running: Motor and separator run to maintain the set vacuum level of 8.0 to 10.0 inHg.
- Standby: Motor and separator are not running.
- Error: Motor and separator do not run.

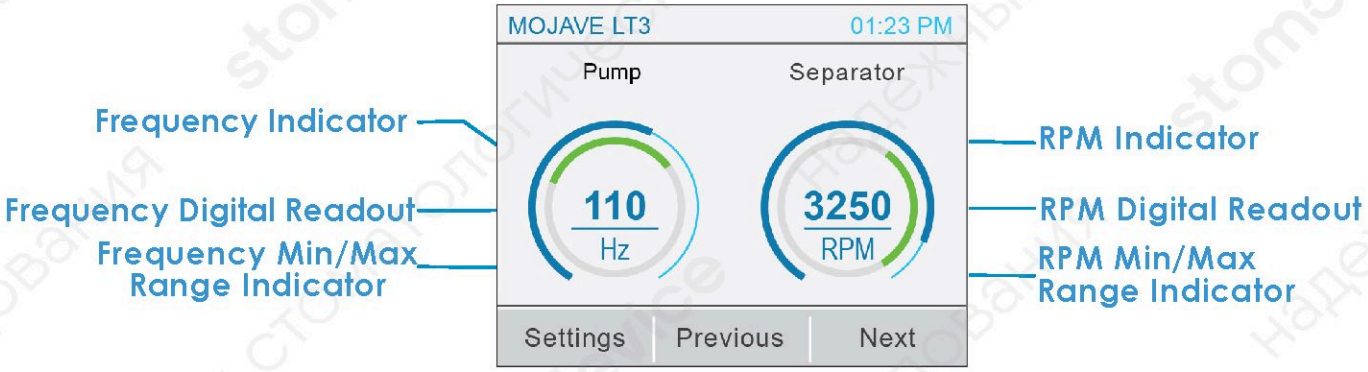
ii. **Vacuum Widget** - Displays current vacuum level.



b. PUMP / SEPARATOR SCREEN

i. **Pump Frequency Widget -** Displays current frequency level with min/max range indicator.

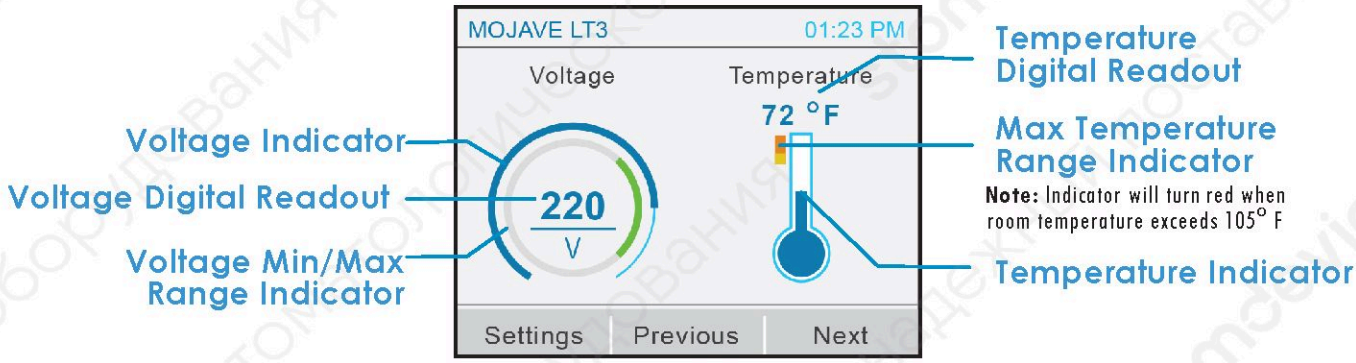
ii. **Separator RPM Widget -** Displays current RPM value with min/max range indicator.



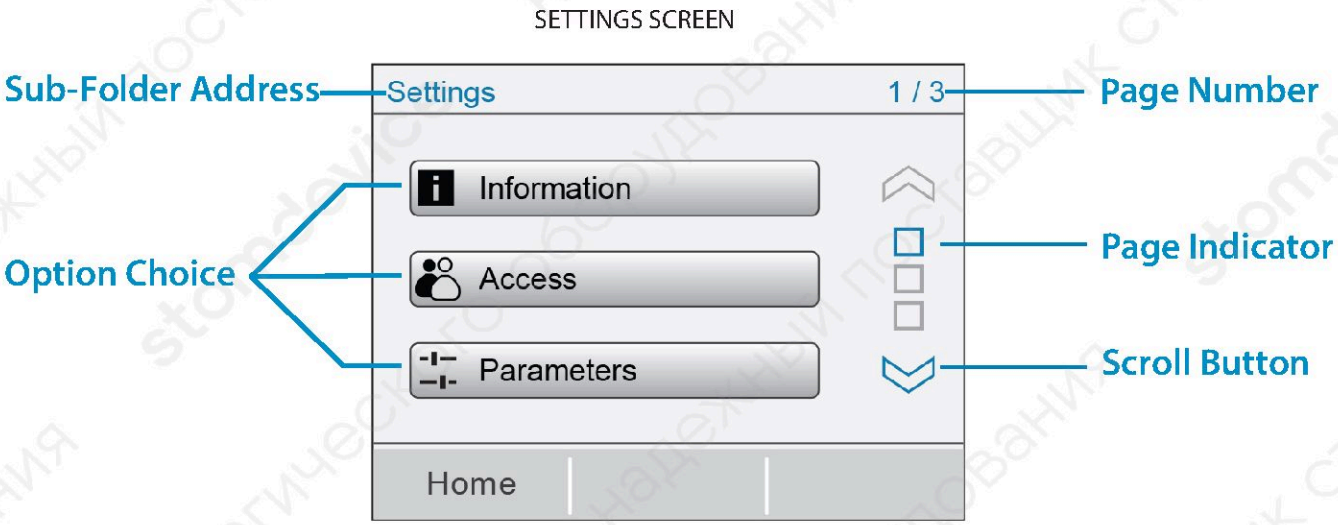
c. VOLTAGE / TEMPERATURE SCREEN

i. **Voltage (V) Widget -** Current line voltage with min/max range indicator.

il. **Temperature (°F) Widget -** Current ambient temperature of room with max temperature limit indicator.



https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ



2. SETTINGS SCREEN

a. INFORMATION

i. **Model** - Air Techniques model number.

ii. **SN** - Unit serial number.

iii. **PCB** - Indicates control board serial number.

iv. **Firmware** - Indicates latest installed firmware and revision.

v. **VFD Code** - Indicates VFD Code number.

b. ACCESS

i. **User** - Default setting on startup, this access level should be used when unit is not being serviced by a technician. Set level by pressing the radio button.

ii. **Technician** - This access level is used when unit is being serviced by a technician to access all option choices. Set level by pressing the radio button.

Note: Access will save on exit by either HOME or BACK buttons

c. PARAMETERS

i. **Set Point** - Sets vacuum level between 8-10 inHg in 0.5 inHg increments by pressing up or down arrows. Press the **SAVE** button to accept setting.

d. DATE / TIME

i. **Date** - Sets to current date. Set date by pressing up or down arrows above or below each digit, then press the **SAVE** button.

Note: When the time zone (UTC) is reset, the time setting may need to be set to match location.

ii. **Time** - Sets current time for selected time zone. Set time by pressing up or down arrows above or below each digit, then press the **SAVE** button.

iii. **Time Zone** - Sets time zone. Set appropriate UTC (see table) by pressing up or down arrows above or below each digit. Press the **SAVE** button and then power cycle (power off then on) device to save setting. After completing power cycle, verify the time matches location.

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

Time Zones Currently Being Used in United States			
Time Offset	Time Zone		Example City
	Abbreviation	Name	
UTC - 5	EST	Eastern Standard Time	New York
UTC - 6	CST	Central Standard Time	Chicago
UTC - 7	MST	Mountain Standard Time	Salt Lake City
UTC - 8	PST	Pacific Standard Time	Los Angeles
UTC - 9	AKST	Alaska Standard Time	Anchorage
UTC - 10	HAST	Hawaii-Aleutian Standard Time	Honolulu

e. NETWORK 

i. **Hint**: - Password "Hint"
ii. **DHCP**: - Indicates DHCP of connected network
iii. **IP-Address**: - Indicates IP-Adress of connected network
iv. **Netmask**: - Indicates Netmask of connected network
v. **Gateway**: - Indicates Gateway of connected network
vi. **MAC Address**: - Indicates MAC address of unit

f. STATISTICS 

i. **On-Time** - Shows time that unit has been powered on (hours)
ii. **Run-Time** - Shows time that unit has been running (hours)

g. ALARM HISTORY 

Shows the last forty (40) alarms triggered. Push any listed **ALARM** button to get details of alarm, such as suggested tasks and date alarm was triggered.

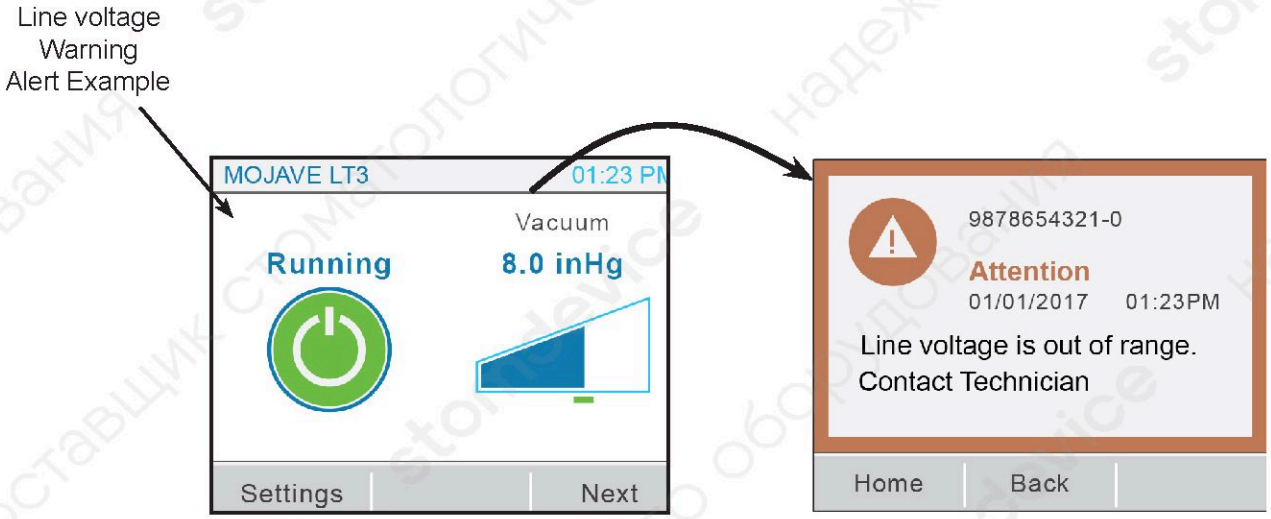
https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

ALARMS

MOJAVE LT3 checks operation via the Intelligent Monitoring System and alerts the user to problems by displaying Warnings or Errors in the upper left corner of the Home Screen. Warnings notify the user of conditions effecting operation while Errors are critical problems disabling operation. As shown below, explanation of the Warning or Error is expanded by pressing the displayed alert. Also refer to TROUBLESHOOTING, page 24, to correct additional problems.

a. WARNINGS

i. **Line voltage is out of range. Contact Technician.**
ii. **Room temperature is too high.**
iii. **Room temperature is too low.**
iv. **Vacuum level is greater than 1.0 inHg over setpoint.**
v. **Vacuum level is less than 0.5 inHg over setpoint.**



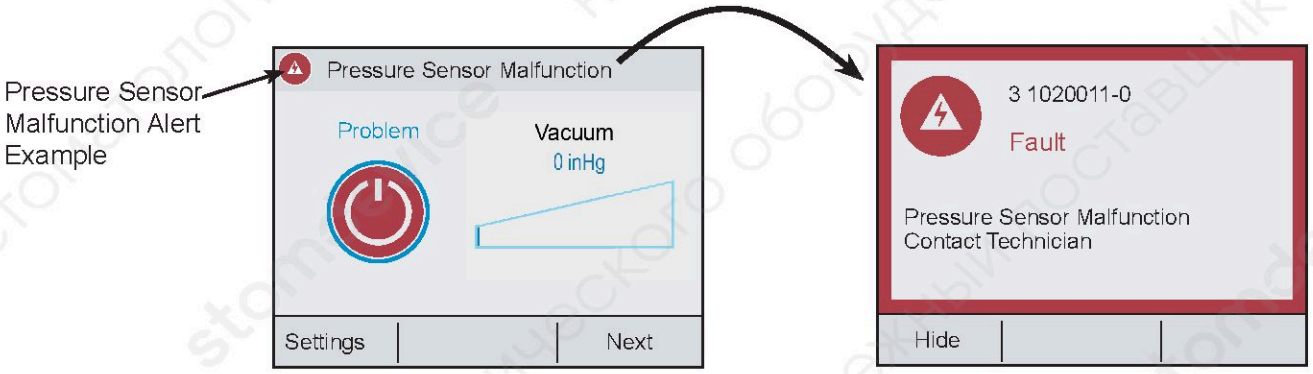
Home Screen Showing Warning

Example Warning Screen

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

b. ERRORS

i. Pressure sensor malfunction. Contact Technician.
ii. Room temperature above 105 °F. Confirm and unit will restart when room is cooled.
iii. Separator below minimum speed. Re-enable motor?
iv. Motor VFD error detected. Contact Technician.



Home Screen Showing Error

Example Error Screen

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

Warning: Cleaning agents that contain bleach or foam should not to be used in this system. These cleaners will leech mercury from amalgam and pollute our environment. Please use non-foaming, non leaching, and biodegradable CleanStream (PN 57850) for proper cleaning.

Initial Maintenance.

After installation, clean the vacuum lines with CleanStream Cleaner. This is especially necessary when a new system is being installed into existing dental system piping. Using CleanStream Cleaner helps the **MOJAVE LT3** system to remove any built up deposits in the piping system. Perform the initial cleaning by performing the daily maintenance procedure provided below.

Maintenance-Free MOJAVE Pumps.

All **MOJAVE LT3** pumps are designed for maintenance-free operation. The pump features a powerful 3-phase motor. The motor is completely water and oil-free and provides a dependable operation requiring no scheduled maintenance.

Preventive Maintenance.

Whenever a service technician fulfills a repair call at the customer site routine checks should also be performed to detect general overall wear, and replacement of parts should be made if necessary before a failure causes a prolonged shut-down. This preventive maintenance program will aid in dependable equipment operation and help reduce breakdown.

Scheduled Maintenance.

Since a well-organized maintenance program aids dependable equipment operation and reduces breakdown to a minimum, it is essential that the maintenance instructions be followed completely. The routine cleaning will remove any built up deposits in the piping system.

Daily

1. Clean drain lines from the operatory to the air/water separator with CleanStream Cleaner by performing the procedure provided on the next page.

Weekly

1. Check for noise and leaks.
2. Clean exterior surfaces
3. Make sure that no flammable, corrosive, or combustible materials are stored in the equipment room (especially in the area around the equipment).

Monthly

1. Check tubing for kinks or cracks.
2. Check drip leg for liquids on exhaust line.
3. Check for debris in the solids strainer.

Important: Evidence of buildup at the base drain most likely means that a stricter adherence to the daily maintenance procedure is required.

Semi-Annually

Check the inlet filter on the pump assembly for buildup. The filter should be dry and clean. The presence of any liquid or debris means that the installation is incorrect or there is an issue with the air/water separator.

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

stomdevice

Warning: The following steps must be performed while wearing skin and eye protection designed for handling typical Haz-Mat material. Use care at all times to prevent spillage.

Caution: Use only CleanStream Cleaner to maintain the system vacuum lines. Do not use chlorine bleach or solutions of sodium hypochlorite to disinfect the MOJAVE system. These materials may result in damage or destruction of equipment or loss of system performance.

Daily Maintenance - Clean Vacuum Lines

Clean all vacuum lines in the vacuum system with CleanStream Cleaner daily as part of the overall preventive maintenance program. This helps to maintain the cleanliness of the vacuum lines and tubing throughout the system. Using the 2.5 liter bottle of CleanStream Cleaner, PN 57850 and the CleanStream dispenser system, PN 57665.

Required - Not Supplied

Part No.	Description
57850	2.5 Liter Bottle CleanStream Cleaner (125 applications)
57665	CleanStream Dispenser System 1 Bottle with o-rings and caps 1 Saliver Ejector Adapter 1 High-Volume Actuator Adapter 1 Small Suction Hose Adapter 1 Large Suction Hose Adapter



Part No. 57850



CleanStream Dispenser System, Part No. 57665

Procedure. Prepare the cleaning solution and clean the system daily by performing the following steps.

Note: The CleanStream Dispenser can hold a maximum of 2 liters of solution for cleaning up to 2 operatories. Mix solution quantity as necessary.

1. Fill the CleanStream dispenser with tap water as applicable;
   a. to the line marked 1 L for 1 operatory
   b. to the line marked 2 L for 2 operatories
2. Using the 20ml measuring line in the CleanStream Cleaner bottle cap, add the CleanStream Cleaner concentrate to the dispenser as applicable;
   a. for 1 operatory, add 20ml of CleanStream concentrate to the 1 liter of water
   b. for 2 operatories, add 40ml of CleanStream concentrate to the 2 liters of water
3. As shown by Figure 11, the interior of the CleanStream dispenser bottle cap is configured with three holes for the insertion of HVEs and SEs via provided adapters as follows.
   a. attach saliva ejector to smallest atomizing adapter
   b. attach 1 or 2 high volume ejectors to respective adapter(s)
4. Refer to Figure 11 and place dispenser in the 2-liter vertical position or the 1-liter horizontal position as necessary.
5. With the vacuum pump on and handpiece valves open, aspirate the CleanStream solution from dispenser.
6. After each cleansing procedure, disconnect the hand pieces and rinse the dispenser.

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

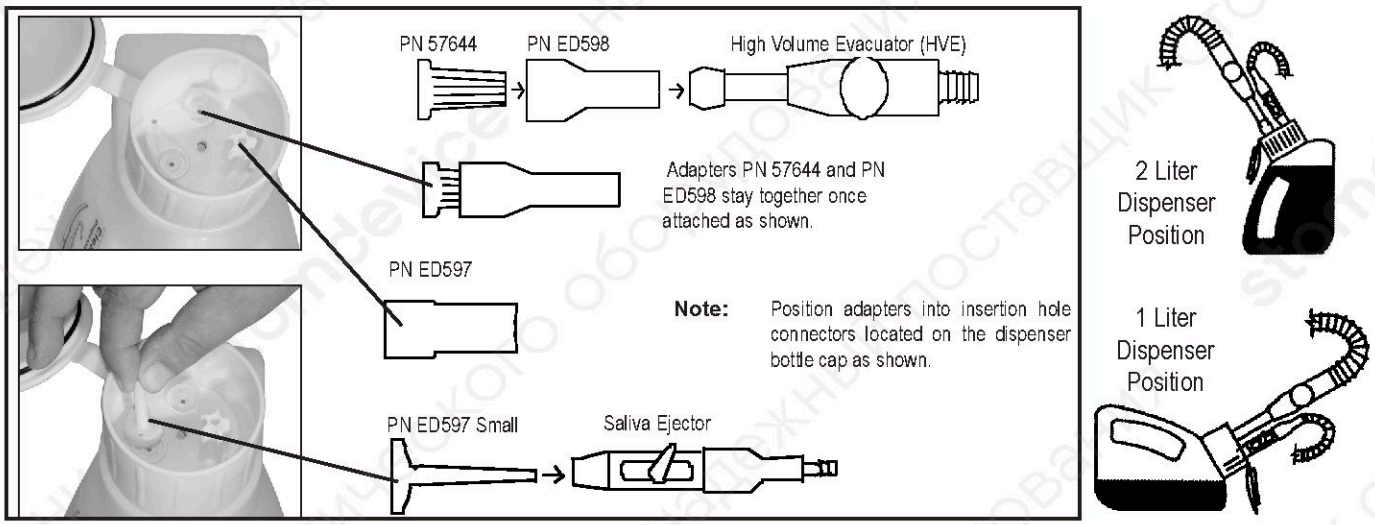


Figure 11. CleanStream Dispenser Cap Adaptor Locations

ACCESSORIES/OPTIONS

Accessories/Equipment Options. The following lists the ordering number and description for accessory components available to maintain the **MOJAVE** product family. Contact an authorized Air Techniques' dealer for information.

Description	Part Number
Remote Control Panels with 24V switches: 1-Switch Plate Kit 2-Switch Plate Kit 3-Switch Plate Kit 4-Switch Plate Kit	 53111 53251 53250 53133
Remote Water Control Valve Systems	53020, 53021 53170 & 53173
Replacement Bowl, Screen and Gasket for Inlet Filter	H5217
XL Utility Stack Rack	56600
Utility Stack Rack Mini	56650

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

stomdevice

TROUBLESHOOTING

Automated Self Diagnostic Feature: Every 2 hours if the pump is OFF it will be turned ON for 6 seconds and then turned OFF. This feature makes sure that the pump remains ready for operation and may be helpful in preventing locked rotors.

Error Reporting: The Pump monitors the system operation and immediately records and reports any warnings or errors found. Some errors clear automatically as soon as the operating issues are resolved; other errors have to be manually reset. The table below lists the types of errors reported along with their possible causes, and possible resolution.

Message Type	Message Text	Possible Cause	Possible Solution
Warning	Line Voltage out of range. Contact Technician	a. Voltage dips or spikes on the AC Mains. b. Unit installed on a 120 VAC circuit	a. Make sure that the Pump is on a dedicated circuit. b. Make sure that the Pump is on a 220 VAC circuit.
	Room temperature is too high.	a. Ventilation in the equipment room is inadequate b. Exhaust lines are restricted	a. Check that the ambient temperature is not above 105°F. Increase the ventilation in the equipment room if necessary. b. Check that the exhaust lines are not blocked or restricted.
	Room temperature is too low.	a. Insulation of the equipment room is inadequate	a. Check that the ambient temperature in the equipment room is above 40°F. Increase heating to the equipment room if necessary.
	Vacuum level value is more than 1.0 inHg over setpoint.	a. Feedback control problem b. Control board malfunction	a. Check that the Control board is not in "Bypass" mode b. Contact your Technician or Technical Support
	Vacuum level value is less than 0.5 inHg.	a. Air Leak in vacuum lines b. Restricted exhaust c. Restricted inlet	a. Check for Air Leak in the vacuum lines, is the idle frequency high? b. Check for restricted exhaust lines c. Check for restricted inlet lines
Error	Pressure sensor malfunction. Contact Technician.	a. Defective component(s)	a. Contact your Technician or Technical Support
	Room temperature above 105°F. Confirm and unit will restart when room has cooled.	a. Ventilation in the equipment room is inadequate	a. Check that the ambient temperature is not above 105°F. Increase the ventilation in the equipment room if necessary
	Separator below minimum speed. Re-enable motor?	a. A large amount of liquid has entered the Separator b. Separator is not powered c. Hall effect sensor is not connected	a. A large amount of liquid has entered the Separator, try turning the Pump ON again. b. Check that the Separator fan is spinning when the pump is turned ON. c. Check that the hall effect sensor cable is not loose at the back of the unit.
	Motor VFD error detected. Contact Technician.	a. Various issues with the VFD can cause this problem	a. Check for the VFD error code under the 'Settings -> Info' screen and contact Technical Support

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

WARRANTY

MOJAVE LT3 is warranted to be free from defects in material and workmanship from the date of installation for a period of 5 years (60 months).

All part and component returns and replacement equipment under warranty require a Return Materials Authorization (RMA). Warranty returns must be received within three months of the RMA issue date. Items returned without an RMA, or included with other products for which an RMA has been issued, may be returned to the customer at the discretion of Air Techniques, Inc.

Any item returned under warranty, will be repaired or replaced at our option at no charge provided that our inspection shall indicate it to have been defective. Air Techniques, Inc. is not liable for indirect or consequential damages or loss of any nature in connection with this equipment. Dealer labor, shipping and handling charges are not covered by this warranty.

Warranty credit will not be applied to product returns that exhibit damage due to shipping, misuse, careless handling or repairs by unauthorized personnel. Credit, or partial credit, will not be issued until products/parts have been received and assessed. Warranty is void if product is installed or serviced by anyone other than an authorized Air Techniques' dealer or service personnel.

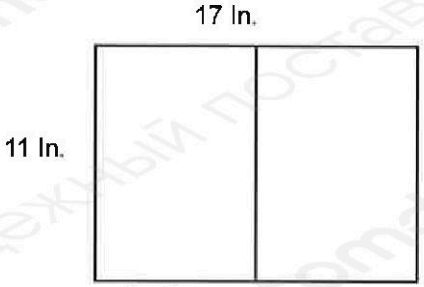
This warranty is in lieu of all other warranties expressed or implied. No representative or person is authorized to assume for us any liability in connection with the sale of our equipment.

ON-LINE WARRANTY REGISTRATION

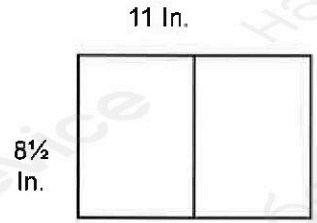
Quickly and easily register your new MOJAVE LT3 on-line. Just have your product model and serial numbers available. Then go to the Air Techniques' website, **www.airtechniques.com**, click the **warranty registration** link and complete the registration form. This on-line registration ensures a record for the warranty period and helps Air Techniques keep you informed of product updates and other valuable information.

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

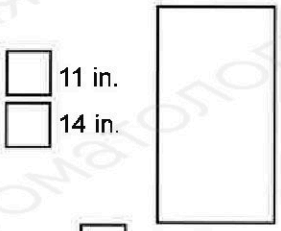
stomdevice



☑ 8½" x 11" Book

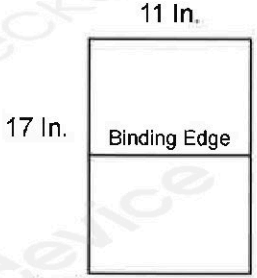


☐ 8½" x 5½" Book



☐ 11 in.
☐ 14 in.

☐ Print Single Side
☐ Print Double Side



☐ No Hole Punch
☐ 3-Hole @ Binding Edge

DATE	REV	REVISION RECORD	AUTH	DWN	CK
11/17	A	ECO H4-008	SFJn	RER	SP

Comments:

Application File Type:

- ☑ In Design
- ☑ PDF (for viewing)
- ☐ CorelDraw
- ☐ Quark XPress
- ☐ MS Word
- ☐ WordPerfect

Air Techniques Storage Location:

Stored by document part number in one of the network release drive directories checked below.

- ☑ Manuals
- ☐ Instructions

Finished Document Print Requirements

Doc size: 8.5 X11 28 Pages

Total sheets: 7 11x17 Sheet

Paper requirements	Weight	Brightness	Finish
☑ Standard	24lb	98	Mat
☐ Custom			

Print Black & White

Additional Options:

- ☐ Print in Color
- ☐ Card Stock
- ☑ Saddle Stitch / Fold (Staple Binding).
- ☐ UV Coat Both Sides
- ☐ Laminate
- ☐ 3-Hole Binding
- ☐ Single hole punch left corner front side
- ☐ Spiral Bound Booklets
- ☐ Wire-O Booklets (Metal Coil Binding)

Artwork print file provided by Air Techniques

Important:
Make sure to print only the latest revision from the network release drive using the original document file for best printing results.
Never print scanned copies from the (engscan network drive).

AIR TECHNIQUES equipped for life®

DRAWN: RER

MATERIAL: SEE RQMTS

FINISH: SEE RQMTS

TITLE: **MOJAVE LT3 User's & Installation Manual**

DATE	SIZE	PART NO.	REV
11/09/17	A	H4300	A

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ

stomdevice

For over 50 years, Air Techniques has been a leading innovator and manufacturer of dental products. Our priority is ensuring complete satisfaction by manufacturing reliable products and providing excellent customer and technical support. Whether the need is digital imaging, utility room equipment or merchandise, Air Techniques can provide the solution via our network of authorized professional dealers. Proudly designed, tested and manufactured in the U.S., our products are helping dental professionals take their practices to the next level.

Air Techniques' family of quality products for the dental professional include:

❑ Digital Imaging

- Digital Radiography
- Intraoral Camera
- Caries Detection Aid
- Intraoral X-ray
- Panoramic X-ray
- Film Processors

❑ Utility Room

- Dry Vacuums
- Wet Vacuums
- Air Compressors
- Amalgam Separator
- Utility Accessories
- Utility Packages

❑ Merchandise

- Surface Disinfectant
- Enzymatic Cleaner
- Hand Sanitizer and Lotion
- Waterline Cleaner
- Evacuation System Cleaner
- Imaging Accessories
- Chemistry
- Processor Accessories

Corporate Headquarters
1295 Walt Whitman Road | Melville, New York 11747- 3062
Phone: 800-247-8324 | Fax: 888-247-8481

www.airtechniques.com

Platinum Green Business Certified

AIR TECHNIQUES equipped for life®

Mojave is a registered trademark of Air Techniques, Inc.
© Air Techniques, Inc. • P/N H4300 Rev. A • November 2017

https://stomdevice.ru - стоматологическое и зуботехническое оборудование с доставкой по России и СНГ