INSTALLATION INSTRUCTIONS
for the
Asepsis 21™
Doctor's Cart (Delivery System)

SECTION I - REQUIREMENTS
1. PHYSICAL REQUIREMENTS................................................................................... 1
2. ELECTRICAL REQUIREMENTS .............................................................................. 1
3. WATER SUPPLY REQUIREMENTS ......................................................................... 1
4. AIR SUPPLY REQUIREMENTS................................................................................ 1

SECTION II - INSTALLATION
1. UNPACKING THE CARTONS ................................................................................... 2
2. UTILITIES CONNECTION BOX (J BOX) INSTALLATION ......................................... 2
3. ELECTRICAL CONNECTIONS TO THE CONNECTION BOX (J BOX) .................... 2
4. TUBING CONNECTIONS ......................................................................................... 3
5. UMBILICAL TUBING CONNECTIONS TO THE UTILITIES CONNECTION BOX (J BOX) ................................................................................................................. 4

SECTION III - CONTROLS
1. ASEPSIS 21 HANDPIECE DELIVERY SYSTEM CONTROLS................................. 5
2. EXTERNAL CONTROLS AND FUNCTIONS ............................................................ 6

SECTION IV - PURGING AND TESTING THE SYSTEM
PURGING AND TESTING THE SYSTEM........................................................................ 7

SECTION V - FINAL CHECK LIST
FINAL CHECK LIST ...................................................................................................... 8
SECTION I - REQUIREMENTS

1. PHYSICAL REQUIREMENTS
   Before installing, ensure that the physical requirements of the unit are met (See Figure 1).

2. ELECTRICAL REQUIREMENTS
   Have an electrician install a 1/2 in. (13 mm) conduit box with quad or equal receptacle. Top of box must
   be no higher than 4-1/2 in. (114 mm) above finished surface of floor.

3. WATER SUPPLY REQUIREMENTS
   A 1/2 I.D. copper supply line, reduced to 3/8" O.D.
   copper tubing as near the shut-off valve as possible
   is required. The water pressure should be in the
   range of 30-50 psi. A suitable pressure reducing
   valve is essential for trouble free operation if the
   pressure exceeds the recommended range.

4. AIR SUPPLY REQUIREMENTS
   A 1/2" I.D. copper supply line reduced to 3/8" O.D.
   copper tubing as near the shut-off valve as possible
   is required.
   The air pressure must be between 75-100 psi at
   the valves. A pressure reducer should be installed
   if the pressure exceeds 100 psi.
   For maximum life and trouble free operation, the
   air supply must be clean and dry. It is recommended
   that a moisture separator and filter be installed as
   near the connection as possible and accessible for
   periodic cleaning.

1. UNPACKING THE CARTONS
   The Doctor's cart is shipped in a carton containing
   the following items:
   - Asepsis 21 instrument head and cart
SECTION II - INSTALLATION

- Optional equipment
- Small parts box
- Utilities connection box (J box), hardware instructions and installation plan TP1046
- Installation instructions (this manual), an operator's manual, and warranty card

Check for signs of damage to the carton or to the contents. Make sure all items listed above are present. If there is any evidence of damage due to shipping or if any of the items are missing from the carton, notify the shipper at once. Be careful not to discard any small parts or instruction sheets with the packing material.

2. UTILITIES CONNECTION BOX (J BOX) INSTALLATION

To install the J box use the installation plan TP1046 supplied with the connection box. This plan may be used as a template to locate the utilities for connection. The installation of the utilities connection box should be performed by a qualified technician.

Please consider the following before beginning:

- The connection box can be installed anywhere in the room within the range of the 8 foot umbilical that will connect the box to the unit. Locate the box where the incoming service lines will not cause an obstruction.
- Air and water are the only services required unless a heated syringe or lighted handpieces are to be used.
- Waste lines, vacuum lines or auxiliary low voltage wiring are not necessary unless separate devices requiring these services are to be used.
- The location of the incoming services on the installation plan are suggestions and can be altered to suit the situation.

3. ELECTRICAL CONNECTIONS TO THE CONNECTION BOX (J BOX)

Attention
The electrical and plumbing supply connectors must be installed by an electrician and plumber in compliance with local building codes. All required hardware is to be supplied by contractor. Supply connections must be located to fit inside the J-box and be properly distanced, within reach of the chair umbilical [4 or 8 foot (1.2 or 2.4 m)].

Equipment Alert
When installing 115~ (VAC) receptacle in the J-Box, position it so that all the other components needed in the box will also fit.

Grounding reliability can only be achieved if this equipment is connected to an equivalent receptacle marked Hospital Grade (NEMA 5-15R, HOSPITAL GRADE).

DANGER: Turn off all electrical power at the power source before making primary electrical connections.
SECTION II - INSTALLATION (CONT)

4. TUBING CONNECTIONS

When connecting the umbilical tubings to the unit or other tubing, use the plastic retainers to secure the connection (Refer to Figure 2).

1/8” Tubing Connection
1. Slip the retainer (large end first) onto the tubing.
2. Push tubing onto the barb fitting and slide the retainer forward over the tubing on the barb fitting.
3. Break the large collar loose and slide it toward the fitting and over the small collar.

1/4” Tubing Connection
1. Slip the retainer onto the tubing with the large opening toward the end of the tubing.
2. Push the tubing onto the barb fitting.
3. Slide the retainer over the tubing on the barb fitting.

Figure 2
SECTION II - INSTALLATION (CONT)

5. UMBILICAL TUBING CONNECTIONS TO THE UTILITIES CONNECTION BOX (J BOX)

If a J box is used, refer to Figure 3 which shows the connections to be made inside the J box. Installation plan 003-1190-00 is supplied with the J box and may be used as a template to locate the utilities for connection. The installation should be performed by a qualified technician.

Figure 3

![Diagram showing connections in the J box]

- **UMBILICAL**
- **1/8" BLUE TUBE**
- **COOLANT AND SYRINGE WATER**
- **1/8" YELLOW TUBE**
- **SYRINGE AIR**
- **1/8" RED TUBE**
- **PILOT AIR**
- **MASTER VALVE**
- **POWER SUPPLY**
  - **(LIGHT ONLY)**
- **OPENING FOR AUXILIARY WIRING**
  - **(LOW VOLTAGE)**
- **WATER**
  - **40 PSI**
- **AIR**
  - **80 PSI**
- **1/4" CLEAR TUBE**
  - **DRIVE AIR OUT**
- **1/8" PURPLE TUBE**
  - **NON-CONTROLLED AIR MASTER VALVE**
SECTION III - CONTROLS

1. ASEPSIS 21 HANDPIECE DELIVERY SYSTEM CONTROLS LOCATED UNDER COVER

A complete set of handpiece and syringe adjustments are located directly under the magnetically held cover for protection against contamination. Lift up either back corner of cover for easy removal. All controls are labeled with symbols identifying their function. A description follows and their locations are identified below.

1 2 3 HANDPIECE COOLANT WATER VOLUME
Adjusts the amount of coolant water to each respective handpiece.

4 5 6 DRIVE AIR PRESSURE SETTING
Individual adjustments are provided - one for each respective handpiece. Use to set maximum handpiece pressure indicated on gage. Refer to handpiece manufacturer's specifications for proper setting.

7 SYRINGE AIR VOLUME ADJUSTMENT
Controls the volume of air to the syringe and effects air water spray pattern.

8 SYRINGE WATER VOLUME ADJUSTMENT
Controls the volume of water to the syringe and effects water spray pattern.

9 COOLANT AIR VOLUME ADJUSTMENT
This adjustment controls the volume of coolant delivered to each handpiece. It effects the spray pattern of air and water at the handpiece. If the handpiece has a coolant air connection in the handpiece itself, this adjustment will have no effect and can be completely shut off.

10 HANDPIECE PRESSURE GAGE
Indicates individual handpiece pressure when handpiece is operating.

11 12 13 MAGNETIC LATCHES
These hold the cover in place.

14 HANDPIECE COOLANT WATER FLUSH BUTTON
controls the coolant water flush valve located on the underside of the delivery head.

Figure 4
SECTION III - CONTROLS (CONT)

2. EXTERNAL CONTROLS AND FUNCTIONS

MASTER ON/OFF VALVE
Located on the bottom of the instrument head directly behind the handpiece holder bar support, this two position toggle control turns the main air and water on or off the utilities box. Up position is on.

AUTOMATIC HANDPIECE ACTIVATION
The automatic kink valves are designed to permit activation of the selected handpiece when it is removed from its holder. Drive air will be delivered to the withdrawn handpiece when the foot control is depressed.

WET/DRY FOOT CONTROL
The disc-type foot control operates the selected handpiece at varying speeds depending upon the foot pressure applied to the disc. Positioning the coolant water selector toggle allows coolant water for wet cutting to be selected by the motion of the foot. Applying foot pressure to the disc will operate the selected handpiece and, if turned on, water spray.

WATER ON/OFF VALVE
Located on the foot control, this switch provides water for coolant spray to the handpiece when the switch is moved forward to the “On” position (toward blue dot) and the foot control is depressed (wet cutting). When the valve is in the “Off” position, water will not be delivered to any handpiece.
SECTION IV - PURGING AND TESTING THE SYSTEM

When the installation is complete you should purge the system to clear the tubing of any foreign material and to purge the air out of the water tubing. This also serves to test the equipment for proper function.

1. Before attaching the handpieces, turn on the air, water and vacuum to the utilities connection box.
2. Open the shut-off valves in the utilities connection box.
3. Fill the water bottle with distilled water.
4. Turn on the master valve lever on the Asepsis 21 head.
5. Lift the cover off the Asepsis 21 head and turn the coolant water and coolant air volume controls adjustment knobs completely open.
6. Remove a handpiece hose from its holder.

7. Depress the foot control to operate the coolant water and drive air for 30 seconds.
8. Depress the coolant water flush button on the underside of the Asepsis 21 head to allow the water to flow for 30 seconds.
9. Repeat this procedure with each handpiece hose.
10. Operate the air and water for both doctor and assistant's syringes for 30 seconds.
11. Install the handpieces.
12. Set the coolant water and coolant air volume controls to the desired position.
SECTION V - FINAL CHECK LIST

When all the assembly and installation procedures are completed, the unit should be checked out in accordance with the following check list to ensure that assembly is complete and that all controls function properly.

☐ Check complete system for any air or water leaks.

☐ Check to make sure there is proper air and water flow to the handpieces.

☐ Check the Asepsis 21 handpiece delivery system for proper function.

☐ Check the syringes for proper function and water flow.

☐ Make sure that the unit has been cleaned and that all dirt and finger prints have been removed.

☐ Be sure the person who will operate the unit receives the Operator's Manual and any other appropriate information or instructions.