A-dec 500 Adjustments
A-dec 500 Leveling

- Leveling should be checked and corrected before tension adjustments are made
  - Rough leveling is done during assembly
  - Final leveling should be done after all equipment is installed on the chair and the systems are in their normal use positions

- Level from the ground up:
  - Link arm and Support arm
  - Front mount
  - Control head
  - Tray

- A leveling video is available at a-dec.biz
Front Mount Leveling

**Front Mount Final or Re-Leveling**

- A bubble level is fixed to the front mount to check for level
- You will need two ¾" open end wrenches, a 7/16" wrench and a 5/16" hex wrench
  - Loosen cam bolts, leveling bolt flanged nuts and stabilization screws
  - Rotate cam for left – right level
  - Move leveling studs in or out equally for front to back leveling
- Secure all fasteners to ensure leveling is locked in position
Front Mount Rotation Stops

- Front Mount Rotation Stops
- Stops are positioned in holes to limit arm rotation
- If support center is installed, place a stop in forward position on support center side
- If converting left to right, the stops can be repositioned
Front Mount Rotation Tension

- **Front Mount Tension Adjust**
  - Use 15/16” wrench to adjust rotational tension
  - Nut on under side is self locking and captured
Delivery Arm Rotation Tension

- **Delivery System Rotational Tension Adjustment**
  - Should be adjusted at installation
  - Use 3/32” hex wrench to set tension
  - Note that this is one adjustment that is not factory set. The clamp must be relaxed to allow the arm to fit over the post.
Delivery Flex Arm Adjustment

- Delivery System Flex Arm Counter Balance Adjustment
  - All instruments and accessories should be installed prior to making this adjustment
  - Turn Master Toggle OFF to release air brake
  - Remove the 3 covers from rigid arm end of flex arm using a 5/64” hex wrench
  - Lower control head and slide flex arm cover off
  - Use a 7/16” open end wrench to adjust spring tension

- Note: Apply Lubriplate to the cover grooves to make installation easier
Delivery System Leveling

- Delivery System
  - Front to Back Leveling Adjustment
    - Remove joint covers with a 5/64” hex wrench
    - Use 3/16” hex wrench to level control head
    - Turn wrench clockwise to raise front of control head
  - Position the delivery system centered over the chair when leveling
Control Head Leveling

- Control Head Leveling Left to Right
  - Use 5/32” hex wrench
  - Loosen and tighten the two leveling screws on opposite sides of the round support

- Position the delivery system centered over the chair when leveling
Control Head Rotation Tension

- Control Head Rotation Tension Adjustment
  - Use 5/32” hex wrench
  - Turning wrench clockwise increases brake tension
Tray Holder Leveling

- Tray Holder Leveling Adjustments
  - Use a 5/32” hex wrench
  - Left to right
  - Front to back
Tray Holder Rotation Tension

■ Tray Holder Adjustments
  • Swivel tension in two places
    ➢ Remove cover for access to rotation adjustment for upper arm
  • Use 9/16” socket
Support Link Leveling

- **Leveling of Rear Support Link**
  - Loosen all four \( \frac{3}{4}'' \) cap screws
  - Loosen leveling bar \( \frac{3}{4}'' \) jamb nut
  - Use a \( \frac{3}{4}'' \) end wrench to turn leveling bar bolt
  - Tighten jam nut while holding leveling bolt
  - Tighten the four cap screws to secure Support Link

- **You will need to remove the support arm limit switch to gain access.**
Lower Support Arm Tension

- **Rotation tension**
  - Use 3/16” hex wrench to eliminate any free play in the bearing and to increase or decrease rotational tension

- **This adjustment should be done when lower arm is mounted to link arm and prior to mounting modules to the arm.**
Assistants Arm Tilt Tension

- Assistants Arm
- Tilt up tension adjustment
  - Note: this tilt up resistance is factory set and should not need further adjustment
  - Use 3/16” hex wrench to change tilt up resistance
Assistants Arm Rotation Tension

- **Assistants Arm Rotation**
  - Remove cap from top of joint
  - Use 5/32” hex wrench to adjust tension

- **Note position of data cable and the power cord**
Assistants Arm Leveling

- Assistants Arm Leveling
- This adjustment is at the top joint
  - Remove joint cover
  - Use 5/32” hex wrench to loosen the two screws
  - Level top of Assistant’s package
  - Tighten the screws to lock the new position
  - Move arm back and forth to observe consistent level
Monitor Mount Tension

- **Monitor Mount Adjustments**
- **Pull tension and push resistance can be adjusted separately**
  - Remove cover from top of mount
  - Use a 5/32” hex wrench
  - Left screw adjusts push resistance
  - Right screw adjusts pull tension
Dental Light Flex Arm Balance

Dental Light Adjustments

- To adjust flex arm tension
  - Remove cover by removing the Phillips screw and the two 5/64” hex button head screws
  - Using a ½” open end wrench adjust tension on the spring so the light head stays in position
Dental Light Adjustments

- Use 5/32”” hex wrench to adjust the tension for:
  - Horizontal
  - Diagonal
Dental Light Adjustments

- **Dental Light Adjustments**
  - For **vertical** adjustment:
    - Use 5/64” hex wrench to loosen set screw
    - Use flat tip screw driver to adjust tension screw
    - Note: Access to screw is under right side yoke plug
  - To **focus** use flat tip screw driver to obtain uniform pattern
    - Focus range is 18 to 31 inches
    - Factory set at 27 inches
Swivel Brake Adjustment

- Swivel Brake Adjustment, p. 33
  - Release brake tension
  - Insert 7/64” hex wrench in through-hole and into adjustment screw
  - Turn wrench to right to increase brake friction

- Hinged handle available as of Jan. ’06
  - P/N TBA
Headrest Adjustment

- **Headrest lever adjustment**
  - Amount of play in lever actuation can be adjusted
  - Use 1/16” hex wrench to control amount of play in lever actuation

- **Headrest clutch assembly is not serviceable.**
Glide bar Adjustment

- Glide bar adjustment
  - Use 1/8” hex wrench
  - Turn clockwise to increase friction on glide bar
Air Pressure Adjustment

- Adjust Air Regulator to 80 PSI
  - Rotate the pre regulator knob to change system air pressure
    - Clockwise to increase air pressure
    - Counter clockwise to decrease air pressure, note: you will need to release some air from the system to get an accurate reading
Water Pressure

- **Water regulation**
  - Water bottle has built in regulator set to maintain 40 PSI. Not adjustable.
  - City water regulator has built in pressure reducer to maintain 35 to 40 PSI
Cuspidor Water Adjustment

- Cuspidor Water Intensity Adjustments
- Correct intensity adjustment will prevent splash and splatter
  - Cup fill intensity is the lower of the two top flow controls.
    - Note: the uppermost is reserved for future use
  - Bowl rinse intensity adjust is on bottom
  - Use 1/8” hex wrench to adjust desired water flow
Cuspidor Water Flow Timing

- Cuspidor Water Cup Level and Bowl Timing Adjustments
- Cup fill level is factory set to 2.5 seconds
- Bowl rinse timing is factory set to 15 seconds
- To change cup level or bowl timing:
  - Press the program button (1 beep)
  - Press cup or bowl button for as long as flow is desired then release (3 beeps confirms setting)
- To stop a timed flow, press the button once
Control Block Adjustments

Control block adjustments for handpiece operation

- Begin by closing all control valves: drive air, air coolant and water coolant
- Water coolant adjustment
  - Lift handpiece from holder
  - Select water coolant and press Foot Control
  - Open water coolant flow control until one drop of water per two seconds is observed
Control Block Adjustments

- Control block adjustments for handpiece operation
  - Air coolant adjustment
    - Open air coolant flow control until a fine mist is observed
### Drive Air Readout

- **Digital readout of Drive Air Pressure on the control PCB**
  - Reference only and not to be used to set pressure.
  - It will read higher than actual depending on HP, tubing length/material.
  - If needed, it can be used to verify HP or control block operation.
Drive Air Pressure Gauge

Drive air adjustment using a handpiece pressure gauge

- Open control head cover
- Lift handpiece from holder
- Press on Foot Control
- Rotate Drive Air flow control on top of block associated with the selected handpiece position
- Observe true Drive Air pressure on gauge
Syringe Flow Adjustment

- Syringe air and water flow adjustment

- Delivery System syringe flow control adjustment inside control head
  - Lift up control head cover for access

- Assistant’s syringe flow control adjustment in lift arm
  - Remove lift arm cover for access
A-dec 500 Adjustments
A-dec 500 Maintenance
Hydraulic Fluid

- **Chair hydraulic fluid**
  - Position chair base and back full up
  - Remove both the lift arm cover and the safety plate cover
  - View fluid level from the rear
  - Top up if need, cycle chair, inspect system for leaks

- **Use only A-dec Hydraulic fluid P/N 61.0197.00**
Air and Water Filters

- **Air regulator**
  - Check/replace air filter

- **Water regulator**
  - Check/replace water filter

- **Notes:**
  - Turn off supply valves before attempting to remove filter caps.
  - Install new filter with stepped edge down against manifold.
Handpiece Oil Collector

- **Oil collector:**
  - Cap hinges down for access
  - Cap pulls off on models after July 2005

- **Gauze pad should be change weekly**

- **Note:**
  - Muffler can be replace if missing or dirty with P/N 77.0503.00
Vacuum Solids Collector

- Solids Collector pulls off for access to collection screen
  - Collection basket should be changed or cleaned daily

- Hot water should be drawn through the vacuum instruments daily

- Screens are available for vacuum instruments to prevent large objects from entering the tubing
Waterline Maintenance

- **ICX Waterline maintenance**
  - One tablet in empty water bottle
  - Fill with treatment water
  - Wait one minute
  - Connect to unit
  - Repeat for each bottle refill

- **Type of Water**
  - Tap
  - Distilled if tap water contains high mineral content

- **Shock treatment**
  - If test show high bacteria level
  - Sterilex Ultra startup
  - ICX maintenance
A-dec 500
Adjustments

Questions?