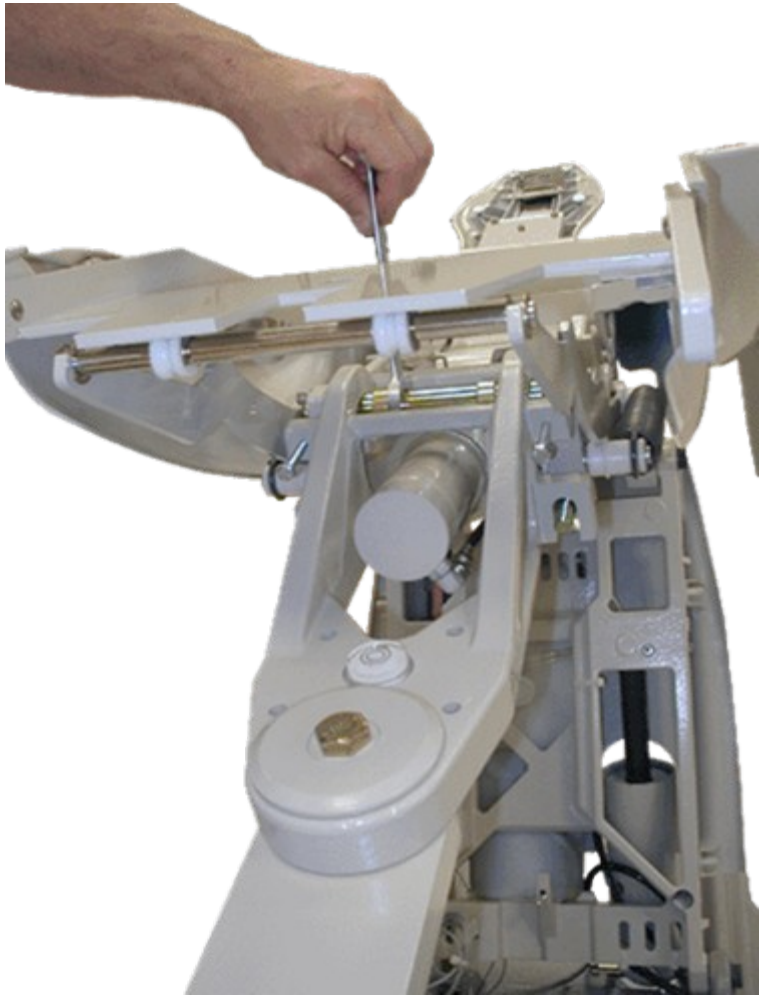
A-dec 500 Adjustments

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

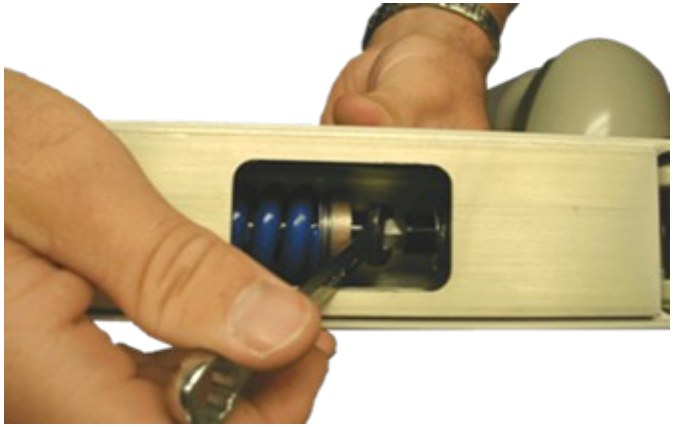
- **Front Mount Tension Adjust**
  - Use 15/16” wrench to adjust rotational tension
  - Nut on under side is self locking and captured

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 ¾” cap screws
  - Loosen leveling bar ¾” jamb nut
  - Use a ¾” 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

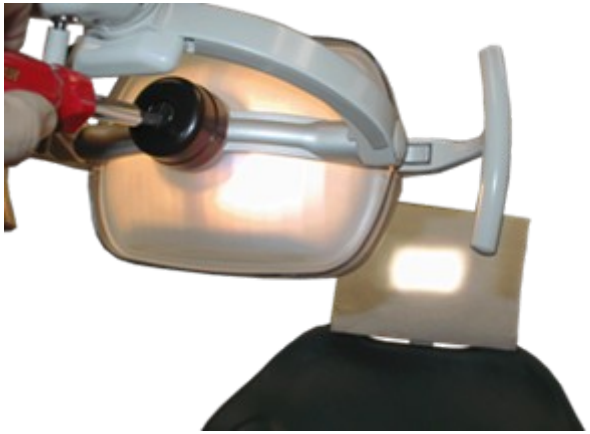
- **Dental Light Adjustments**
  - To adjust **flex arm** tension
    - Remove cover by removing the Phillips screw and the two 5/64” hex button head screws
    - Using a ½” open end wrench adjust tension on the spring so the light head stays in position

Dental Light Adjustments

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

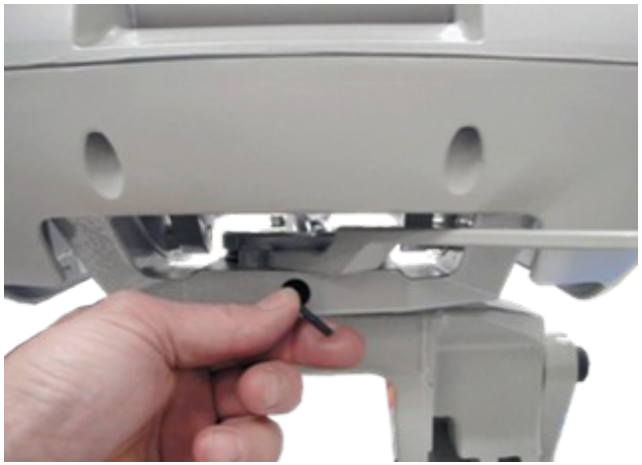
Dental Light Adjustments

- **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

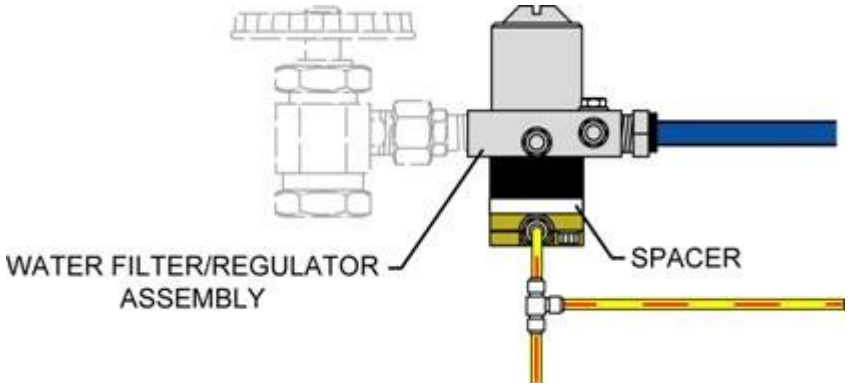
- **Glide bar adjustment**
  - Use 1/8” hex wrench
  - Turn clockwise to increase friction on glide bar

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

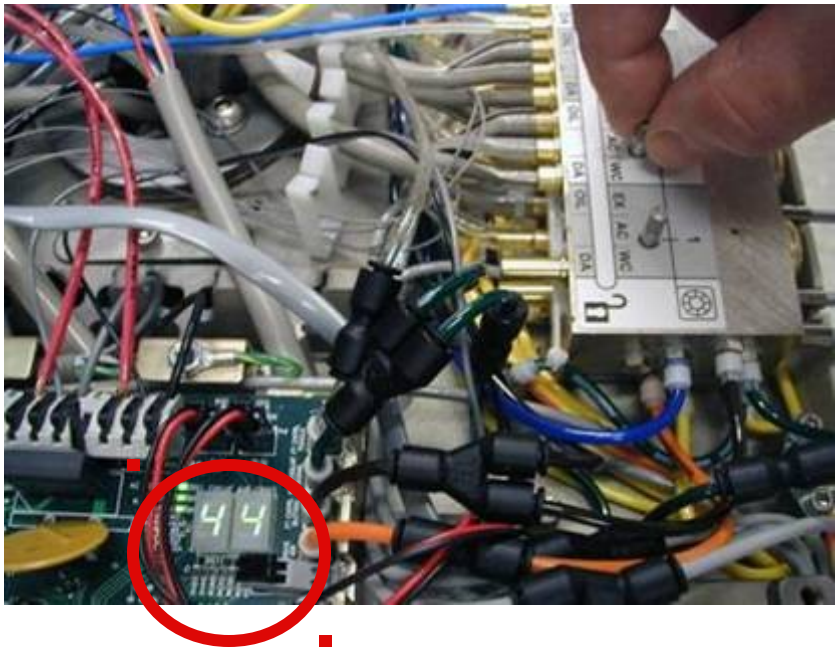
- **Control block adjustments for handpiece operation**
  - Begin by closing all control valves: drive air, air coolant and water coolant
  - Water coolant adjustment
    - Lift handpiece from holder
    - Select water coolant and press Foot Control
    - Open water coolant flow control until one drop 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

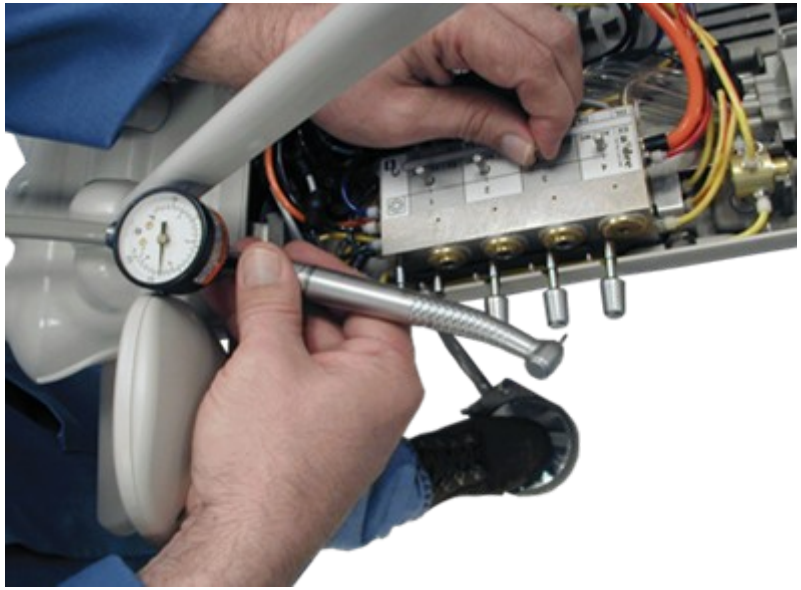
Drive Air Readout

- **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.



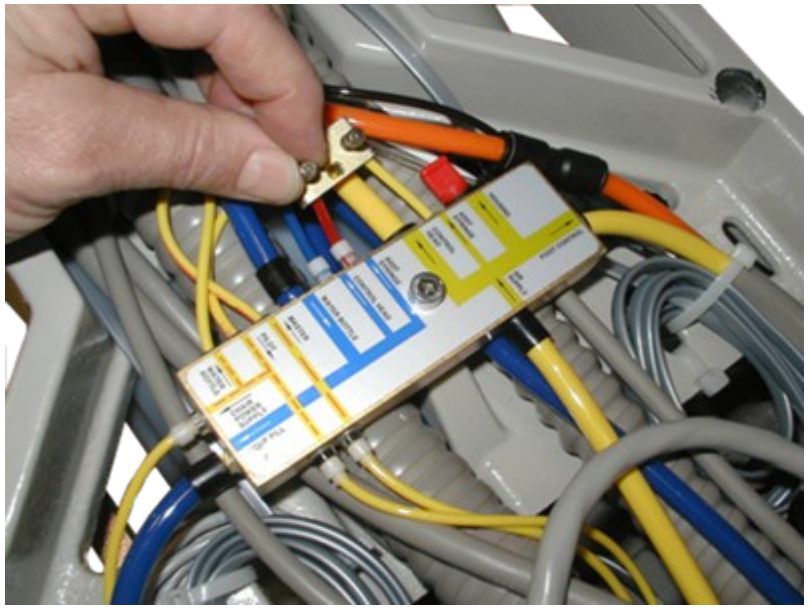
Drive Air Pressure Gauge

- **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

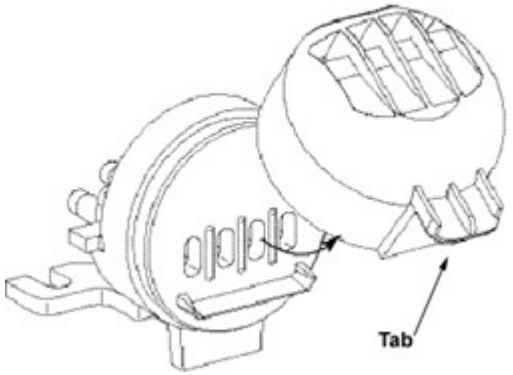
- **Chair hydraulic fluid**
  - Position chair base and back full up
  - Remove both the lift arm cover and the safety plate cover
  - View fluid level from the rear
  - Top up if need, cycle chair, inspect system for leaks
- **Use only A-dec Hydraulic fluid P/N 61.0197.00**

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?