



HWS-1 HIFU Work Station



The HWS-1 HIFU Work Station is comprised of an 18 by 24 inch (46 x 61 cm) workspace, much like a cutting board, but with additional features. Included in the station are 3 general purpose articulated arms, a 7 Megapixel camera, an LCD display monitor, and a tissue illuminator. The arms have multiple universal joints and quick disconnect clamps at the ends to hold whatever you need, in whatever angular position is called for. Mounting holes are conveniently placed around the entire periphery. Once an arm is positioned, twist one knob to lock the entire arm into place. The enlarged image can be observed on the LCD display monitor while making adjustments. Once in place, take high resolution pictures or make AVI movies for documentation. The macro zoom feature allows an object the size of a grain of rice to fill the screen. The table is constructed from High Density UV-stabilized Polyethylene.

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HWS-1 Features:

- **Size:** 18 by 24 inches by $\frac{3}{4}$ inches thick for rigidity (46 x 61 x 1.9 cm)
- **Work surface:** High density UV-stabilized Polyethylene
- **Arms:** Strong, stable arms long enough to span the workspace. Can be repositioned anywhere around the periphery of the work surface.
- **Camera:** Pentax 7 Megapixel with macro zoom, NTSC video, AVI video, SD-ram memory, USB interface
- **LCD monitor:** 6 inch display. Standard NTSC input
- **Tissue illuminator:** 120 volts AC, adjustable dual necks
- **Clamps:** Highest quality quick disconnect clamps with parallel and V-block capacity. $\frac{1}{4}$ -20 standard camera mount included on each clamp
- **Cleanup:** Easy to clean plastic workspace

Additional JJ&A HIFU products for use with the HWS-1 include:

- **RFG-100 RF Generator:** A compact, 100 watt RF Power Generator with frequency ranges available from 700 KHz to 5 MHz. Includes USB interface, CW and Pulse modes, and emergency shutdown circuit. Multiple units can be combined for phased or annular arrays.
- **RFG-1000 RF Generator:** Same features as the RFG-100, except the maximum power output is 1000 watts.
- **PF-500 RF Power Fuse:** This module is a stand-alone RF power sentry used to protect transducers from accidental overpower damage. Placed in-line between the RF power generator and the transducer, it passes the signal unless the power level exceeds the desired limits.
- **TMN-100 Transducer Matching Network:** Automatically computes the proper impedance transformation between the power source and transducer without the need for additional inductors and capacitors.
- **PM-1000 Power Meter:** Pulse power and SWR monitoring module. Measures SWR (Standing Wave Ratio), forward power, and reflected power in either CW or Pulse modes. Very unique in that it will function properly with fast pulses. Information is sent back to the user via standard USB interface. This information can be used to halt the power generator if a high SWR condition suddenly exists.
- **DDL-1000 Digital Dummy Load:** Combination dummy load and power sensor with USB port. Useful for dry runs and diagnostics. Use to confirm that proper power levels are set.
- **RX-1 Receiver:** Used to present baseband I and Q (In phase and Quadrature) output signals for signal analysis. Receiver locks onto transmitting frequency and IQ outputs show phase information of received signal. Analog outputs, ready for any -5 to +5 volt digitizer.
- **CIRC-1000 Circulator:** Used to isolate transmitted and received signals, or can be used alone as a T/R switch.
- **FS-1 Foot Switch:** Accessory for use during experiments to control when the power generators are on.