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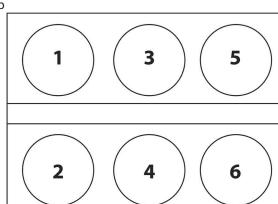
MIDAS® 3-Liter Plating System

The MIDAS® 3-liter plating system is ideal for plating, electro-forming and e-coating processes.

MIDAS® 3-Liter Plating System 331-970

Set-Up Instructions

- 1. Unpack the unit and place on a flat surface.
- 2. Ensure that the following are included:
 - a. Stainless steel lids (2)
 - **b.** Third-hand assemblies (2)
 - **c.** Red lead with banana jacks on both ends (1)
 - d. Red leads (2) and black lead with banana jack and alligator clip
 - e. 3000mL beakers (6)
 - f. Magnetic stirring pellets (2)
 - g. Power cord
 - h. Thermocouples (2)
 - i. Large anodes (2)
- **3.** Assemble the third-hand attachments by screwing the rods together, sliding the clips over the rod, and tightening them with the thumbscrew. Position each rod into the bracket mounted on the back of the unit.
- **4.** Position a beaker in each of the six beaker receptacles.



This drawing represents each position on the station; the numbering sequence represents the steps taken in a normal plating operation.

Recommended Set-Up

Station One—Electrocleaner (#335-076) and stainless steel anode (#335-042).

Station Two—Deionized water or distilled water rinse.

Station Three—Acid dip (#335-075). **Please Note:** There is no power or heat on station three. The acid dip is included because it is extremely important to assure a good plating bond; we strongly recommend that you use this station.

Station Four—Deionized water or distilled water rinse.

Station Five—Plating or e-coating solution and appropriate anode. The appropriate anode is dependent on your selected solution; see the *MIDAS® Plating Guide* (#550-289) for information on selecting plating solutions and anodes; e-coatings require a stainless steel anode (#335-042).

Station Six—Deionized water or distilled water rinse.



MIDAS® 3-Liter Plating Station

Recommended Set-Up (continued)

- 1. Add the appropriate solutions to each of the six stations.
- 2. Place the appropriate anode and magnetic pellet into the beakers for station one and station five.
- 3. Attach the thermocouples on the back of the unit. Please Not panel for that station will display an error message (Er-2). You may use the third-hand units included with the plating unit to hold the thermocouples suspended at their stations.
- 4. Plug the red leads into the banana jacks on the back of the unit and connect to each anode with the alligator clip.
- 5. Plug the remaining red lead into the banana jack at the back of the unit and the other end into the positive jack on the rectifier.
- **6.** Plug the plating unit into a grounded 120-volt outlet.
- 7. Place the thermocouples in the solutions in stations one and five; they are used to calibrate the temperatures for the solutions in stations one and five. For example, the electrocleaner solution in station one operates best at 150°F (65.5°C).

Back of the unit

red lead to

power unit

red banana jack

to anodes thermocouples

power cord

Using the Unit

- 1. Stations one and five are equipped with an on/off switch, heater control and agitation control. To set these:
 - a) Turn on station one and set the beaker with solution into position.
 - b) Press \odot on the control pad to access the Set Mode. Use the $| \triangleleft |$ key to select each digit and use the $| \nabla |$ and \triangle keys to increase or decrease the setting.
 - c) Turn on and adjust the speed of the stirring action using the knob to the left of the display: clockwise to increase speed, counterclockwise to decrease speed. Bring up the speed slowly; if the magnetic pellet gets off center, you'll hear it hit the side of the beaker. If this happens, lower the speed of the stirrer and raise it again slowly to re-center the pellet. Please Note: This can take several attempts.
 - d) Repeat for station five.
- 2. Attach the workpiece to the negative lead (black) from the rectifier using a handling wire.
- 3. When finished, turn off stations one and five. Place the lid on top of the beakers to avoid contamination.

Important: Do not place the lid on the beakers if heaters and/or magnetic stirrers are on.

Please Note: The solution level in the beakers will decrease due to evaporation and drag-out. Keep the beakers at least half-full to avoid unit damage.



3-liter plating unit with lids in place over beakers

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