CARE OF YOUR MICROTIN

The MicroTin contains three type N batteries. Batteries must be fresh for a good plate. Over used batteries can leak and damage the handpiece. Care should be used not to short out grounding probe to anode. Solutions must be washed from MicroTin parts after plating. Residues can tarnish plater parts and contaminate future plating. Solutions unused in solution wells should be stored in wells and not returned to container. Sandblast to clean corroded anode surfaces.

TROUBLE SHOOTING

	WEAK BATTERIES	BATTERIES IN BACKWARDS	PLATING TIP NOT SATURATED	OLD SOLUTION	GROUNDING LEAD DISCONNECTED
No Plating	*	*	*	*	*
Slow Plating	*		*	*	

REPLACEMENT SUPPLIES

Microtin Solution	Quantity ½ oz.	REF # 30150
Felt Tips small	35/pk	REF # 30170
Felt Tips large	35/pk	REF # 30181
Cotton balls	35/pk	REF # 30171
Batteries	3/pk	REF # 30162
Wells	12/pk	REF # 30172

DANVILLE MATERIALS

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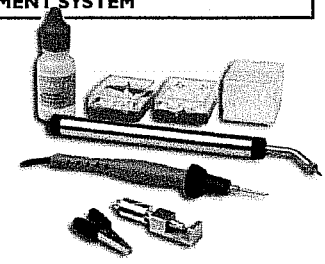
MICROTIN BONDING ENHANCEMENT SYSTEM



INSTRUCTIONS

BONDING ENHANCEMENT SYSTEM

Tin electroplating onto noble metals such as dental gold alloys will improve the bond strength of glass ionomers and all the major resin/adhesive systems (e.g. Panavia, etc.) In office tin plating eliminates otherwise required dental laboratory send-outs and return patient visits. The procedure is quick, simple and reliable.

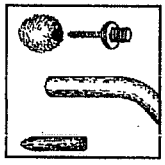
TIN PLATING SOLUTIONS

The tin plating solution contains a proprietary organic tin complex in a neutral solution of (pH 7.0-7.4). Several drops should be used for each application to assure a thorough soaking of the tip, so as to give a uniform electroplate. After finishing electroplating, do not pour the dispensed solution back into the dropper bottle. Keep your stock solution free of contaminants. Discard the used cotton swab. If desired, the felt tip may be rinsed (and autoclaved) for reuse.

Note: Shelf life of solution is 1 year. Keep solution bottle tightly closed.

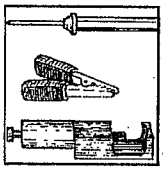
Caution: The Danville Materials tin plater has not been approved for Intra-oral use, and should not be so used. Acute ingestion or eye contact may cause permanent injury, and prolonged, allergic skin exposure may cause burn type reactions. Material Safety Data Sheet on the electrolyte is included in each kit.

ANODE TIP SELECTION



The metal anode terminal (front) of the electroplater is partially drilled to form a "hollow nose" cavity, which holds either a tip of sfelt, or a threaded adapter for a cotton-ball swab. The felt or swab, in turn, holds the tin electrolyte solution. Only a few drops of plating solution are needed to saturate the tip swab, but the solution must soak through to make contact with the metal anode. Different anode tip materials give different plating characteristics. We suggest you try various test samples before plating onto the final specimen. The felt tips are designed to plate small, metal areas where you want accurate control of the plated region. The felt may be cut with a sharp knife to give a "custom" shaped point. The cotton ball or swab gives a faster electroplate and makes it convenient to use on large areas such as the whole inside of a crown.

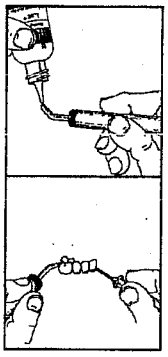
GROUNDING LEAD - CATHODE



The bridge, crown or inlay to be electroplated (cathode) is connected by wire to the negative (-) end (rear banana plug socket) of the plating pencil. Any electrical connection from this socket to an exposed metal surface on the inlay is sufficient. Three types of connectors are included with the MICROTIN electroplater: a pointed probe, an alligator clip (which slides onto the probe) and a crown holder. Select connectors for greatest convenience

MICROTIN BONDING ENHANCEMENT SYSTEM

PLATING PROCEDURES



Prepare the metal surface to be plated by sandblasting with 50 micron Aluminum Oxide abrasive (we recommend the use of the Danville Materials MICROETCHER sandblaster). The freshly blasted metal surface is now clean and activated. Plate within 15 minutes, sooner if possible. Pour several drops of plating solution into the solution well (included). If using a felt tip, place an extra drop of plating solution in the anode cavity before inserting the tip. The tip must be thoroughly saturated with solution, felt tips require up to several minutes of soaking time. Electroplate by rubbing or "brushing" the metal surface with the soaked tip. The plating time required is only a few seconds. If a cotton ball is used instead of the felt tip, first screw the swab adapter into the anode nose and then twist a cotton ball onto the adapter protrusion. Again, dip the anode tip into the solution and "brush" or swab the inlay to be plated. A brushing motion over the entire surface area insures even coverage and allows continuous inspection during plating action. Depending upon the size of the area to be plated, the time required is about 2 to 6 seconds. By the time you observe a uniform coat of whitish metal covering the gold, you will already have an approximate 0.2 micron layer of tin deposited. Palladium alloys willshow a more subtle change, from a dull gray sandblasted surface to a satin, silvery luster. Do not apply an excess of tin. The bond strength between the resin and the dental alloy will start to diminish slightly as the tin layer starts to exceed 0.5 micron. When finished plating, rinse well with water and air dry. Bond ASAP for best results. We recommend practicing this procedure on a copper penny prior to first use.