

Eastwood

DO THE JOB RIGHT.

Part #10049Z

ELECTROPLATING SYSTEM INSTRUCTIONS



NOTE: Read all safety and operating instructions before use.

The Eastwood Tin-Zinc Plating System contains a mild acid solution. It is entirely safe when used correctly.

NOT FOR USE BY CHILDREN!

INTRODUCTION

Thank you for purchasing the **EASTWOOD HOME ELECTROPLATING SYSTEM**. With this system, you can plate brass, copper, and steel parts (not for stainless steel, aluminum, chrome, or pot metal). This product works on the same principles as a commercial plating system, and with a little experience and practice, you can achieve the same results. We have spent an extensive amount of research time in order to deliver a system that is safe, easy to use, and dependable.

NOTE: This single-step plating system is not recommended for larger parts that require the additional corrosion and abrasion resistance that only triple chrome plating can provide.

CAUTION: All safety precautions mentioned in these instructions should be followed at all times.

CONTENTS

Your electroplating kit contains the following items:

- 1 battery box with leads
- 1 two quart container of electrolyte
- 1 pair of safety goggles
- 1 tube of Autosol polish
- 1 funnel
- 1 pair of disposable gloves
- 1 electroplating touch-up brush
- 1 anode bar
- 1 process bottle

You will need to supply 2 D size batteries (not included).

If anything from the above list is not included in your kit, please call:
Eastwood Customer Services Department at 1-800-544-5118

IMPORTANT SAFETY INSTRUCTIONS

READ ENTIRE MANUAL BEFORE USE!

The electroplating solution, known as “electrolyte,” contains sulfuric acid. Extreme care should be taken that the liquid does not come in contact with skin or clothing. If spilled on clothing, remove and rinse with cold water. If splashed into eyes, rinse with large amounts of water and call a physician. If swallowed, do not induce vomiting and call a physician.

- **Safety goggles and gloves are included with your electroplating kit.**
They must be worn at all times while plating.
- **Keep electrolyte (plating solution) out of reach of children and pets.**
- **DO NOT store solution in any type of metal container** since the electrolyte chemically interacts with certain metals.
- Keep electroplating solution stored at 40° to 95° F and only in its original plastic bottle with the lid sealed tight when not in use! Transfer to and from the wide mouth process bottle using the supplied funnel.
- **DO NOT store solution in the wide mouth process bottle.**
- **DO NOT allow solution to contact any household chemicals or cleaning materials.**
A reaction may occur either releasing dangerous gasses or rendering the plating solution worthless.
- **ALWAYS set up your plating system in an area close to a cold water source and work in a well ventilated area.**
If running water is not available, several buckets of fresh water will do.
- **DO NOT** smoke while plating.
- **DO NOT** eat or drink while plating.
- **DO NOT** operate the plating system while under the influence of drugs or alcohol.

For spills, leaks, fire, or exposure call Day or Night:

Chemtrec 1-800-424-9300 (USA – Toll Free) 202-483-7616 (International – Collect)

*MSDS Sheet available upon request.

PREPARING PARTS FOR PLATING

As with any restoration or decorative process, the finished product is only going to be as good as the preparation. The actual electroplating process is only the final step. Any flaws found in the part before plating are still going to be there after the plating, unless you prepare properly.

If you want the finished piece to have a mirror-like shine, polishing and buffing the part before plating will be necessary.

1. DISASSEMBLE OBJECT TO BE PLATED

First, any object to be plated should be disassembled into individual pieces. Nothing should be left bolted together if possible.

2. REMOVE ALL GREASE, OIL, PAINT, OR RUST

All parts should be free of grease, oil, paint, or rust. Old paint may be removed by abrasive blasting, paint remover, or sanding. Eastwood carries many products which can aid in this process. To ensure that the parts are chemically clean, we recommend that they be soaked in Eastwood's Fast Etch Rust Remover and then rinsed before plating.

3. CLEAN WITH A MILD DETERGENT

After surface preparation, all parts should be cleaned with a mild detergent, followed by a wax and grease remover. We recommend Eastwood's PRE Painting Prep (#10041Z).

4. CLEAN IT AGAIN!

There is a general rule that should be followed for any kind of plating preparation: when you think the part is clean enough to be plated, clean it again! For best results and enhanced corrosion protection, use Eastwood's Fast Etch (#19416Z pint or #19418Z gallon). Allow Eastwood's Fast Etch to chemically clean the part for about 10 minutes or longer, as needed to assure all rust is removed. Rinse in clean running water and immediately (do not let the part dry) place it in the plating bath.

5. HANDLE CLEANED PARTS WITH GLOVES

It is very important that you do not handle the cleaned pieces with your bare hands. You may leave traces of oil on the part which will cause problems. Cleaned parts should be handled with gloves or pliers, being careful not to scratch them.

6. PLATE THE PREPARED PARTS RIGHT AWAY

Parts that are cleaned are subject to corrosion quite rapidly; this is called "flash rusting". For this reason, it is very important that the parts be plated as soon as possible after preparation.

SETTING UP THE SYSTEM

NOTE: For safety purposes, we recommend that you set up your plating system as close as possible to a water source. Eastwood does not recommend that you use your kitchen counter due to the proximity of food, and that the electrolyte may discolor some decorative counter tops. If a running water source is not available, several buckets of fresh rinse water will be sufficient.

Shake the Solution in Original Container

Due to the nature of the electrolyte, some settling of chemicals may occur. Check to make sure the lid is secure, then shake the solution to ensure a uniform mixture of the contents. Some sediment is normal and will not affect performance.

Put Container on a Level Surface and Hook Anode Bar Over the Rim

After shaking the solution, pour it into a wide mouth plating container then place it on a level surface. Take the anode bar and hook it over the rim (mouth) of the container allowing it to hang into the plating solution.

Attach the Wire to The Anode

Attach the small silver alligator clip on the red (positive) wire to the end of the anode bar which is hanging over the end of the solution container. It is very important that you do not allow this clip to enter into the plating solution as this may contaminate it. The black (negative) wire attaches to the part you will be plating. Note: Be sure positive battery post is touching battery holder contact.



HOW IT WORKS

Attach Clip to The Part

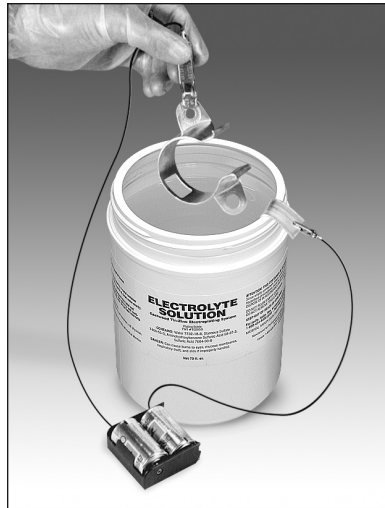
After properly cleaning the part, attach the copper clip on the end of the black wire to the part to be plated. Try to attach the clip as close as possible to the edge of the piece, or to a section that will not be visible when the part is reassembled. Also, a length of copper wire can be used to connect the part to the clip if needed.

Place The Part in the Solution

Place the part into the solution making sure that it does not contact the anode on the way down. If the part touches the anode during plating, a discoloration may form at the point of contact. Make sure the part is fully submerged. Any portion of the piece that remains above the surface of the fluid will not plate. It is acceptable to submerge the copper clip into the solution but better to use a copper extension wire. It will be plated along with the part.

Plating Time and Thickness

The thickness of the plating depends on the amount of time the part is left in the solution. There are no “fixed times” for leaving parts in the plating bath; experience and practice will guide you. Try to find some scrap pieces to practice on before doing “the good stuff”. Larger objects take longer than smaller objects, with the maximum being about thirty minutes. To give you a rough guide, the average bolt takes about three to four minutes for sufficient plating build-up. Over-plating can happen and should be avoided. You will know if you have over-plated the part if it comes out of the bath with a rough, crusty surface. If this happens, you will have to remove the plating and start over. Plating can be slowly removed by reversing the polarity at the battery.



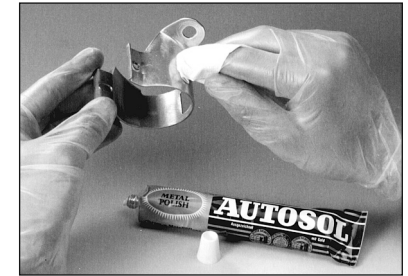
FINAL FINISHING OF PLATED PARTS

Check the part about every three to four minutes. The gray film that forms on the surface of the anode is normal. Plating efficiency decreases as the gray film builds on the anode. Take the anode out of the bath after about every fifth part that has been plated and clean it by brushing gently with a nylon brush (a clean toothbrush works great) under clean running water. Note: For extended anode life, re-position the anode so that a different area of the bar is in contact with the electrolyte. When you have completed plating the part, remove it from the solution and rinse it for about sixty seconds in fresh water. The part is now ready for final finishing.

Final Finishing

Your part is now electroplated with real metal tin which will resist corrosion and rusting with minimal care.

The gray film which forms over the part while plating can be removed easily by hand, using the Autosol polish included in your kit. Machine buffing of the finished piece is not necessary nor is it recommended.

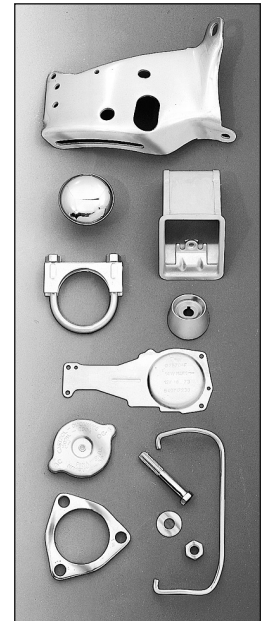


Parts which are pitted on the surface can be finished with an attractive satin sheen by lightly glass beading them or by using a fine scuff pad. For best long-term durability, degrease with PRE or Acetone and coat with Diamond Clear Gloss for Bare Metal (#10200Z) or Extreme Diamond Clear (#29894Z).

With a little imagination, you can see the many uses for your electroplating system. It can be used for cars, boats, antiques, jewelry or virtually anything made of metal. The alloy which is deposited on the surface is non-toxic and lead-free, so it is environmentally safe.

Pieces treated with the electroplating system have an excellent corrosion resistant base which can be easily painted over without such compatibility problems as lifting or bleed-through.

The system is not recommended for use over chrome plated parts or for large parts such as bumpers or wheels.



STORING THE ELECTROPLATING SYSTEM

Storage of the Electroplating System

When not in use, remove the anode bar from the solution, clean it with a nylon brush under running water. Pour the plating solution back in the storage bottle using the included funnel. Be sure the container's plastic lid is tightened securely. Rinse the plating container in clean running water. Store the solution at temperatures between 40° to 95° F and out of reach of children and pets. Remove the batteries from the holder. Rinse off the black lead with clean water thoroughly to ensure that all traces of the electrolyte have been removed. (Traces of the solution left on the clip will affect its performance if left on for extended periods). Store the wire leads and batteries in a dry place.

Connecting The Electroplating Touch-up Brush

1. Attach the small alligator clip on the red wire to the brush.
2. Attach the large copper clip on the black wire to the part to be plated.

Using The Electroplating Touch-up Brush

NOTE: There are no fixed times for plating. Experience and practice will guide you. Do not stroke the brush as if to paint the surface.

1. Dip the brush head into the electroplating solution. Be careful to wet only the bristles.
2. Hold brush with bristles against surface to be plated. Avoid surface contact with the metal parts of the brush. Brush the part very slowly (in one direction) for about 10 seconds.
3. Repeat as necessary until plating is the desired thickness.

Replacement Components

Your electroplating kit can plate literally dozens of parts effectively. After some time, however, the components may need to be refreshed.

Electrolyte Replacement

Replaces the electrolyte solution that may get contaminated during normal plating system use. 2 quart container (#10049ZB).

Anode Replacement

Replaces eroded anodes that result from normal usage of the plating system. Pack of 2 anodes (#10049A).

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department:
800.544.5118 >> email: techelp@eastwood.com

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