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#PRP1789

Federation Mark VI Science Tricorder Prop Kit Assembly Manual



Your kit has been manufactured for maximum allowable ease in assembly. Precision cut-outs have been made, including back door opening, hinge openings, countersunk hinge screw locations and back door screw holes. Scribed lines to assist in the placement of some parts have also been incorporated. To further clarify the assembly steps, high resolution versions of the photographs used in this manual are available at EdMiarecki.com.

These instructions detail how to construct your kit into a non-functioning prop. Although it is possible to convert this kit into a functioning prop, the instructions for doing so are beyond the scope of this manual. However, should you want to attempt such a conversion, additional internal parts and backlit graphic as used in the original tricorder props constructed for Paramount Pictures Corporation have been included in the bonus pack to facilitate the conversion.



PARTS INCLUDED IN KIT:

- (1) Tricorder body (two parts)
- (1) Tricorder bottom door (two parts)
- (1) Back door
- (1) Back door tab
- (1) Back door support frame assembly
- (2) Hinges
- (8) 4-40 flathead screws and nuts
- (1) Allen key
- (7) Internal assembly cleats
- (2) 4-40 button head screws
- (1) .020" hinge spacer shim
- (1) Scanner (two parts)
- (1) Omni-Scan Sensor Array
- (1) Screen graphic
- (1) Velcro (two pieces)
- (1) White self-adhesive graphic sheet
- (1) Black self-adhesive mask and graphic sheet
- (1) Clear Contact paper
- (3) Red graphics
- (3) Gold graphics
- (1) Black pin striping
- Bonus pack

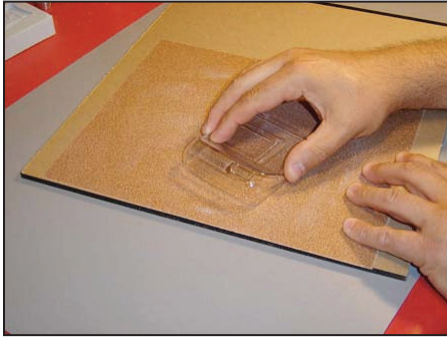
TOOLS NEEDED FOR ASSEMBLY:

- X-Acto knife or similar
- Straightedge
- Small flat screwdriver
- Scissors

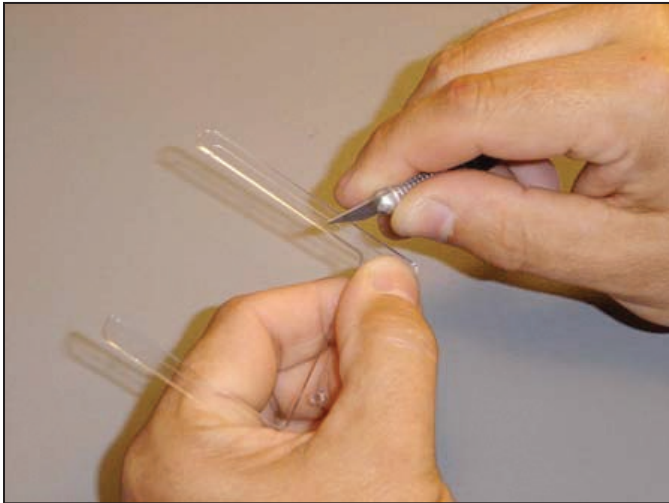
SUPPLIES NEEDED FOR ASSEMBLY:

- Weld-on #3 acrylic solvent or similar
- Cyanoacralate (Super glue, Krazy-glue, CA, etc.)
- 60 grit sandpaper
- 180 grit sandpaper
- 320 finish sandpaper
- Automotive body filler (Bondo or similar)
- Automotive spot putty
- Paint brushes (2)
- Removable painting tape
- 5-minute clear epoxy
- Gray automotive spray primer
- Krylon Stone Gray spray paint #1605 (formerly known as Dove Gray)
- Krylon Bright Silver spray paint #1401
- Clear satin lacquer spray
- Flat Black spray paint
- Gloss dark gray paint
- Automotive body filler application tool





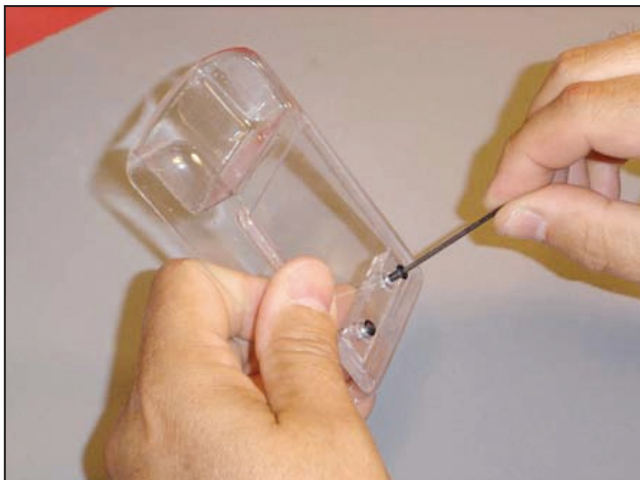
Step 1: Sand back and front halves of Tricorder body until all high spots have been removed with 60 grit sandpaper. To protect flange on front half of body, sand on platform as shown. Check edge often; do not sand more than necessary. Remove any rough burrs by scraping inside and outside edges with X-Acto knife.



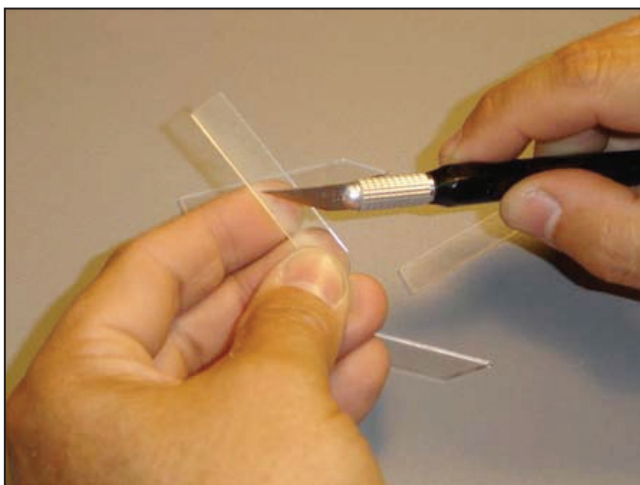
Step 2: Using X-Acto knife, scrape away sharp edges from perimeter of back door support frame assembly.



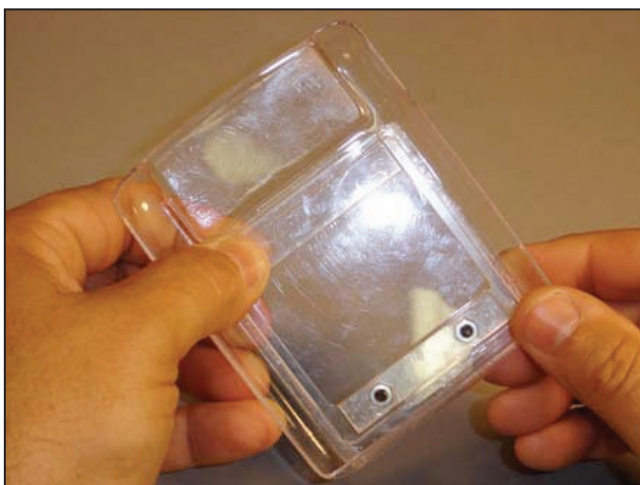
Step 3: Line up scribed line on back door support frame assembly with opening on back of main body, making sure that encapsulated nuts are towards angled end of body as shown. Solvent into place. Let dry thoroughly before proceeding to next step.



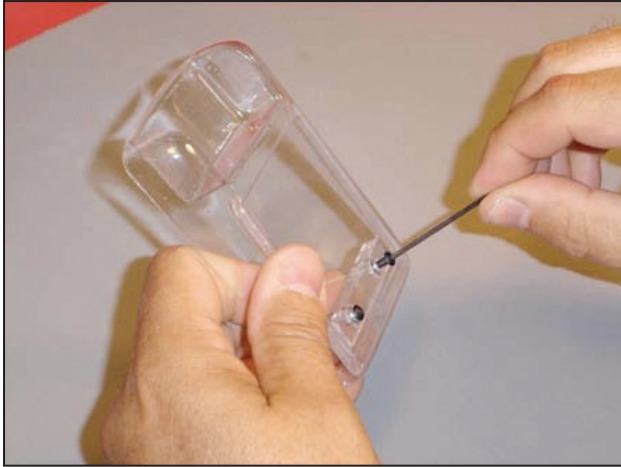
Step 4: Temporarily screw the back door into position using two 4-40 button head screws and an Allen key.



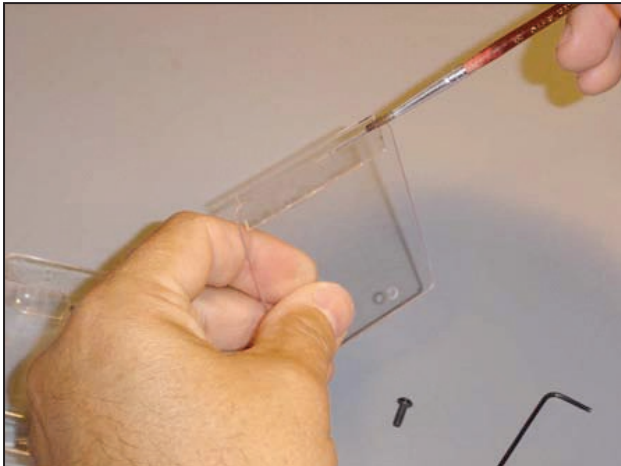
Step 5: Using an X-Acto knife, scrape away the sharp edge from the perimeter of the back door tab and all cleats.



Step 6: Place the back door tab into place on back door using the scribed line as guide as shown.



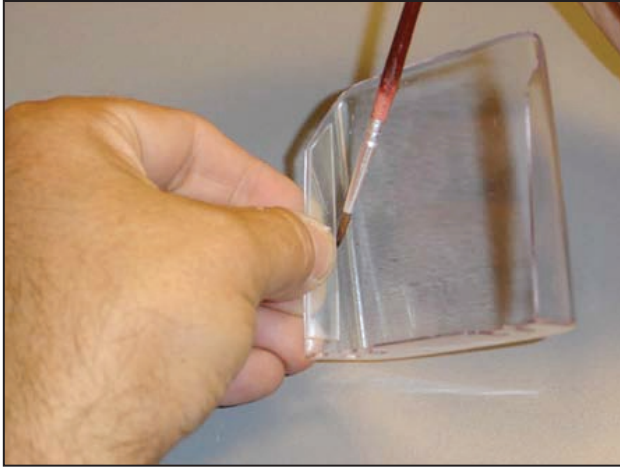
Step 7: Place a small amount of solvent at the center of the back door tab where it meets the back door to tack into place. **Caution! Do not use excessive solvent or capillary action will cause the back door to be permanently glued to body.**



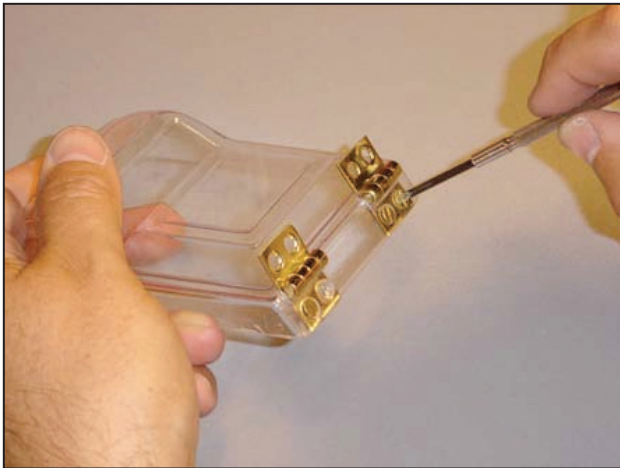
Step 8: Remove back door and finish applying solvent to the back door tab.



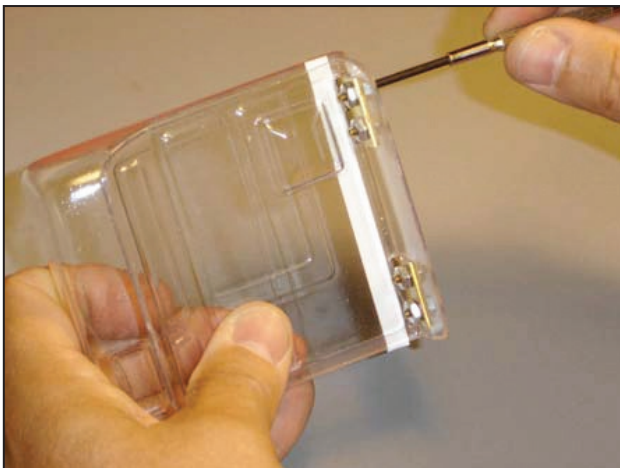
Step 9: Affix one each of 3-1/4" cleats to the inside of each side of the back of the tricorder body as shown. Be sure that the angled end of the cleat is towards the angled end of body.



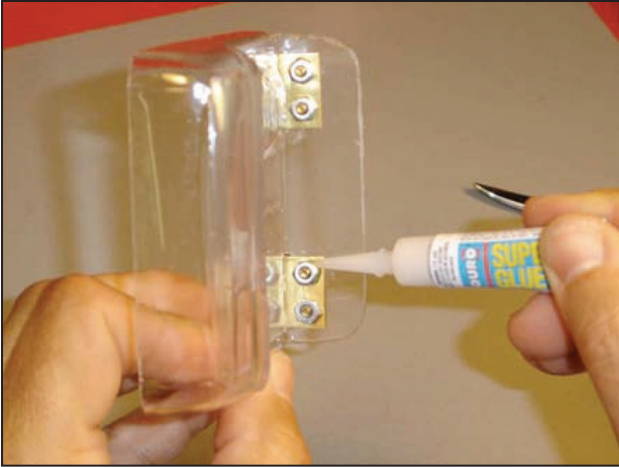
Step 10: Place a 2-1/4" cleat inside the edge of the outer bottom door as shown, lined up flush with the surface, and solvent into place. Repeat for the other side.



Step 11: Insert the hinges into the front of the body as shown, and screw snugly into place using four 4-40 flathead screws and nuts.



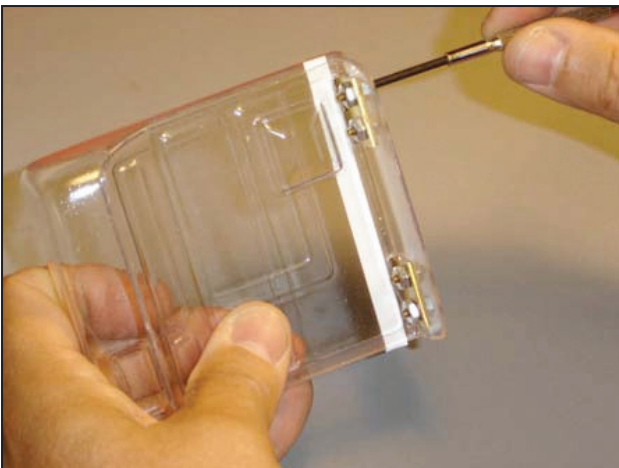
Step 12: Place the inside face of the bottom door onto the hinges as shown with .020" spacer shim. Screw snugly into place using four 4-40 flathead screws and nuts.



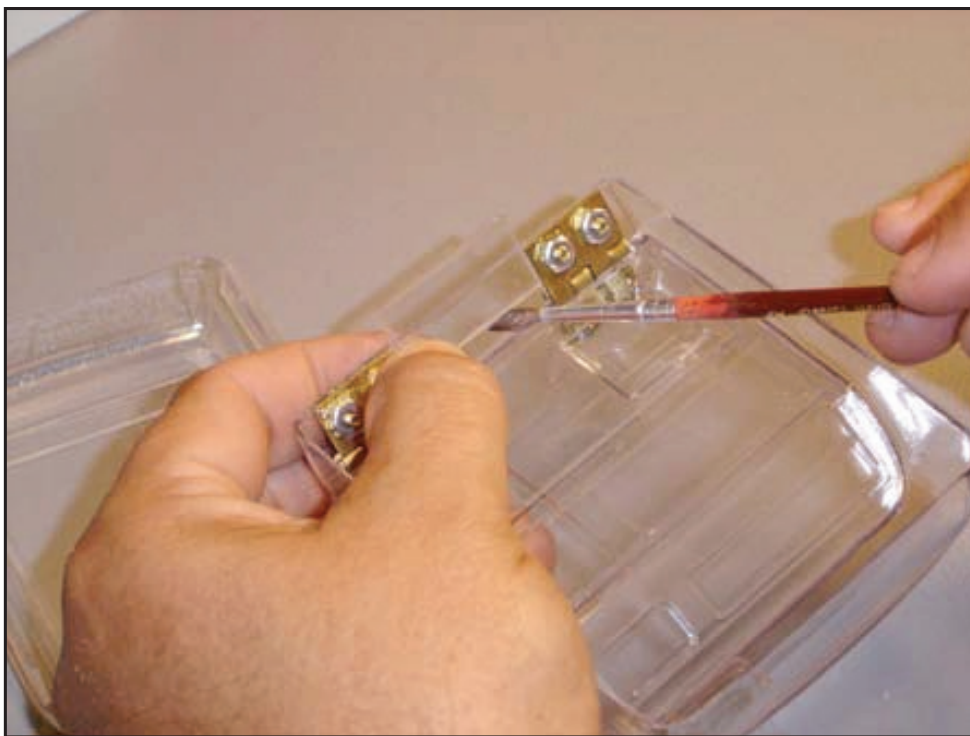
Step 13: Place a small amount of CA onto each of the eight nuts to affix to hinge, taking care not to get any glue on the screws.



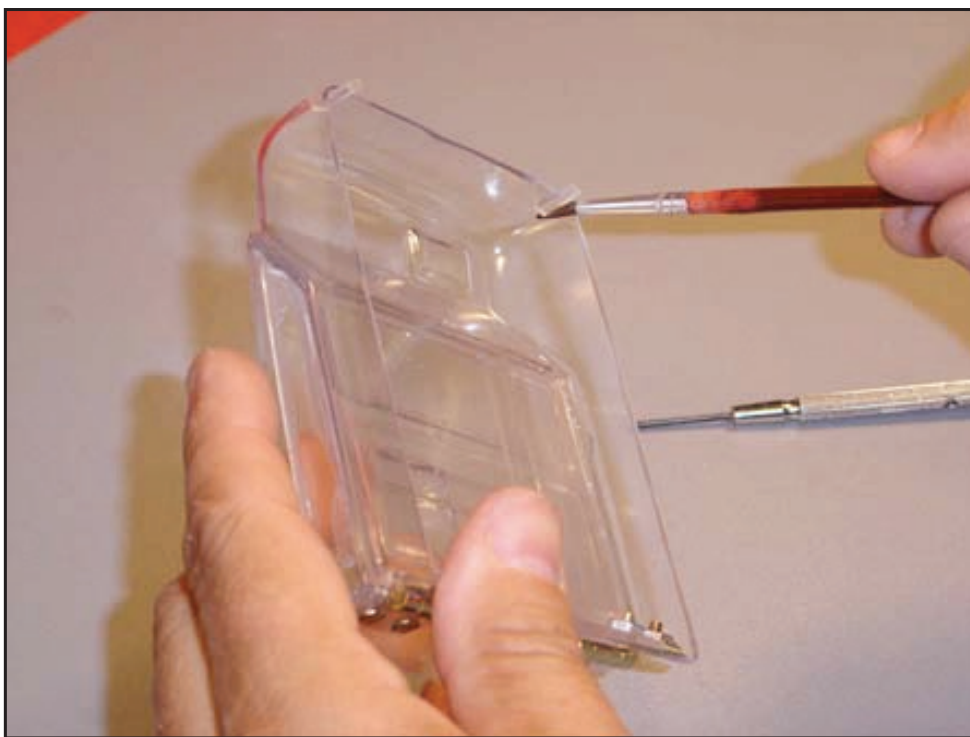
Step 14: After the CA has dried, loosen the four screws of the bottom door. Slip the outer bottom door into place in between the hinges and inner bottom door as shown. Retighten the screws.



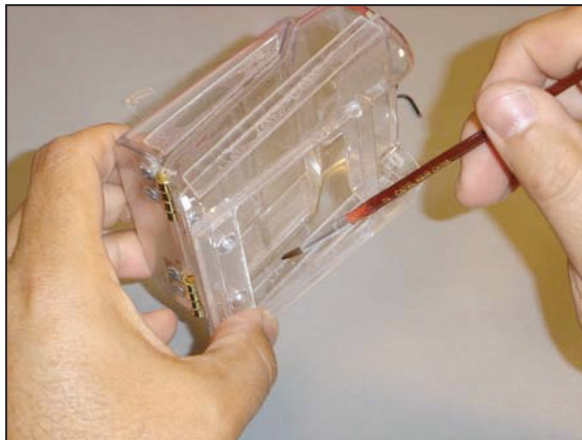
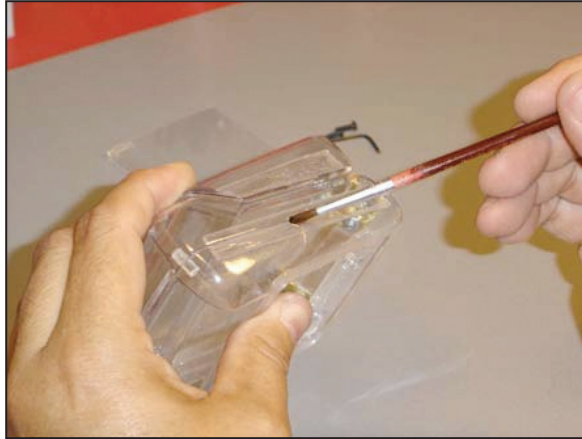
Step 15: Solvent around the edges of the bottom door halves.



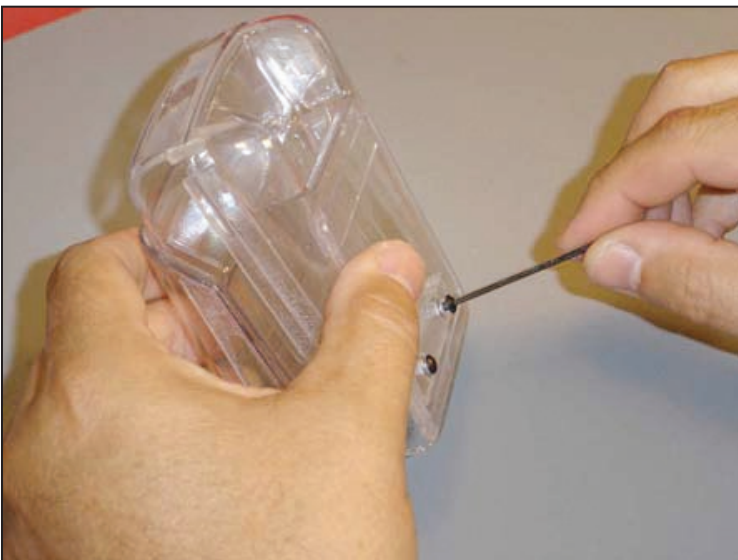
Step 16: Affix 1-1/4" cleat between the hinges with solvent as shown.



Step 17: Affix two mini-cleats to the front corners of the front half of the tricorder body with solvent as shown.



Step 18: Assemble the front and back halves of the tricorder body together as shown. Solvent into place.



Step 19: Attach the back door.



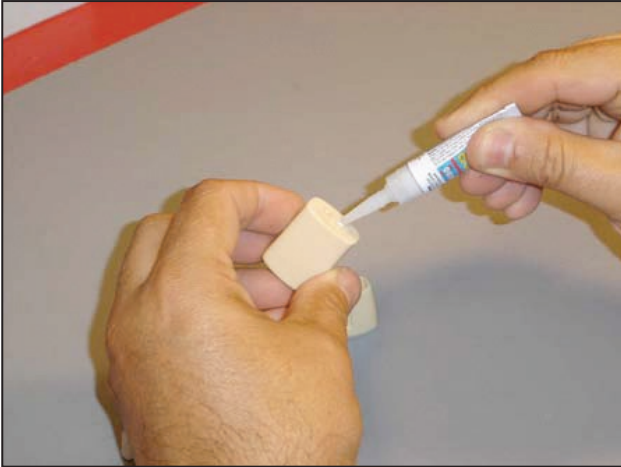
Step 20: Rough sand around the seams with 180 grit sandpaper to aid in adhesion of the body filler.



Step 21: Apply body filler to the seams, covering the heads of all eight flathead screws.



Step 22: Sand filler smooth. Repeat steps 20 and 21 if any imperfections remain.



Step 23: Apply CA to one side of the scanner and affix the scanner head to the body.



Step 24: Apply 1-5/8" x 1-1/8" black screen mask to the screen, centering on the depression.



Step 25: Cover the back of the screen from the inside of the body with removable painter's masking tape to protect it from any overspray.



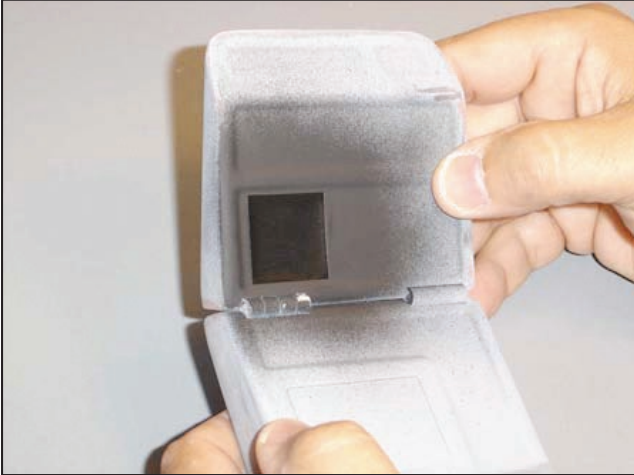
Step 26: Prime the entire body and scanner with gray automotive primer.



Step 27: Fill any small imperfections with automotive spot putty. Sand putty until smooth.



Step 28: Spray the area of the EMRG recess and the scanner pocket flat black.



Step 29: Mask the EMRG area with the provided black 15/16" x 15/16" mask.



Step 30: Mask the scanner pocket with removable masking tape.



Step 31: Spray overall with gray primer. Allow to thoroughly dry.



Step 32: Spray tricorder and scanner with base color, Krylon Stone Gray, formerly known as Dove Gray, color #1605. Allow to dry.



Step 33: Apply a misting* of Krylon Bright Silver, color #1401 to both tricorder and scanner. *Misting is a technique whereby the spray can is held 24" from the subject and short passes are made. The end result is a sparse coating of a second color over a base coat.*



Step 34: Remove the EMRG mask and scanner pocket mask.



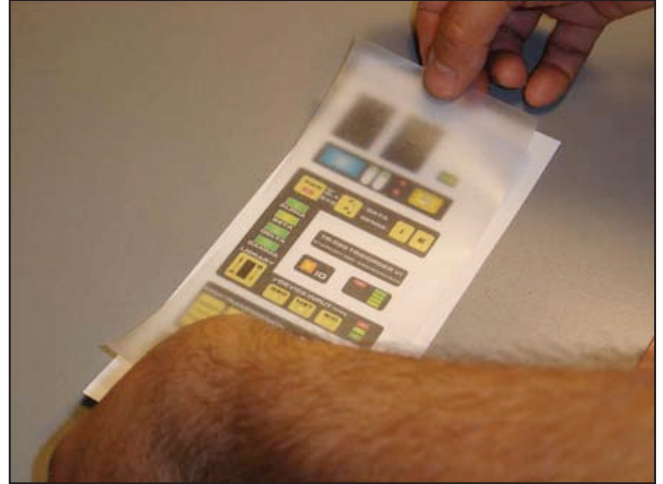
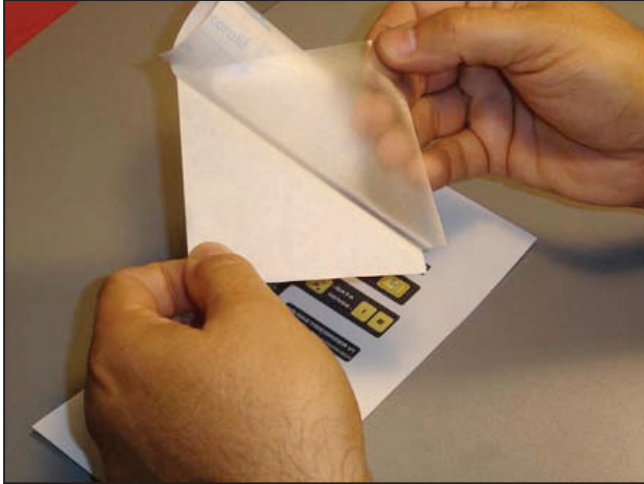
Step 35: Apply a clear satin finish to both the tricorder and scanner.



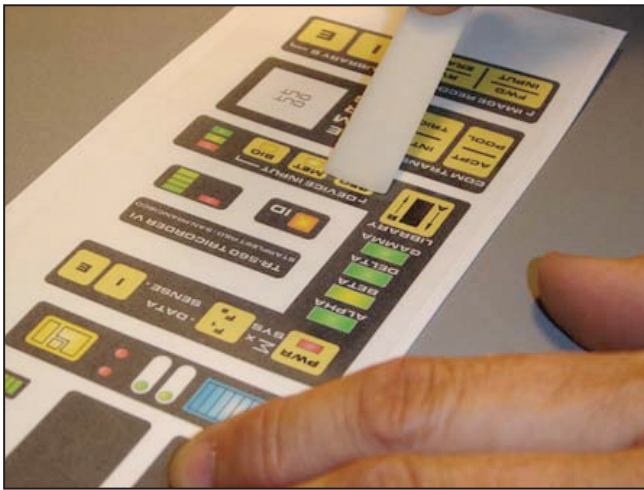
Step 36: Remove the screen masks from both sides of the screen.



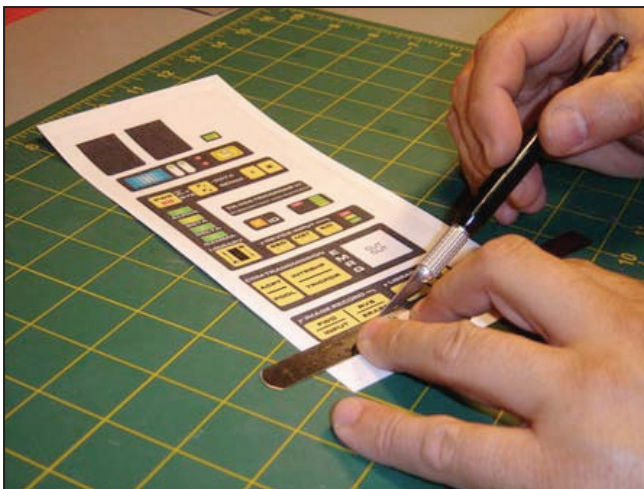
Step 37: Position the screen graphic and tape into position form behind.



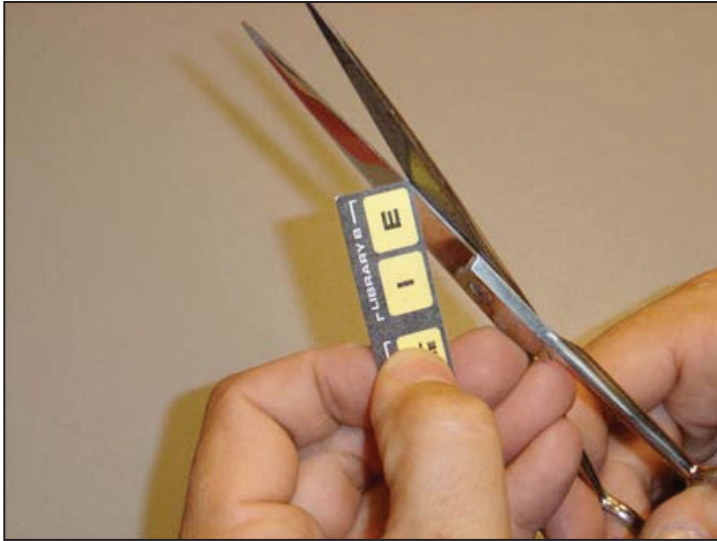
Step 38: Apply clear protective Contact paper to the labels.



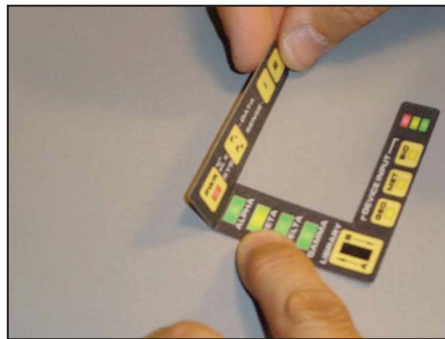
Step 39: Smooth the Contact paper over the labels to remove air bubbles.



Step 40: Cut out the labels using a straight edge and X-Acto knife.



Step 41: Round the corners with scissors.



Step 42: Peel the backing from the labels and affix to the tricorder as shown. To facilitate the application of the "C" shaped label to the angled surface of the tricorder, crease it as shown.



Step 43: Apply the red 3/8" x 5/15" graphic to EMRG recess.



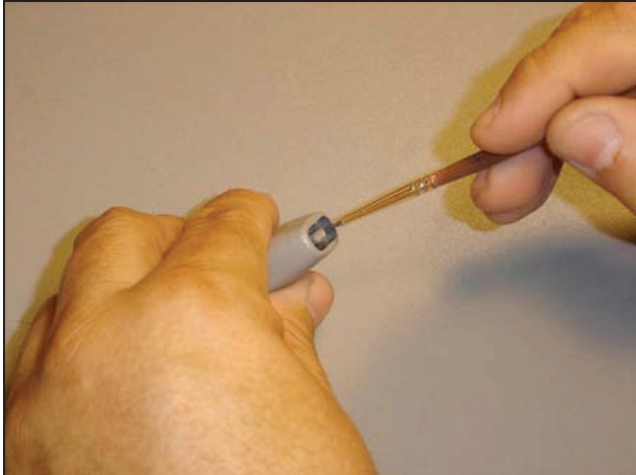
Step 44: Apply gold Pulse Refractor Plates to the Nanonic Field Sensor using the base graphic as a guide.



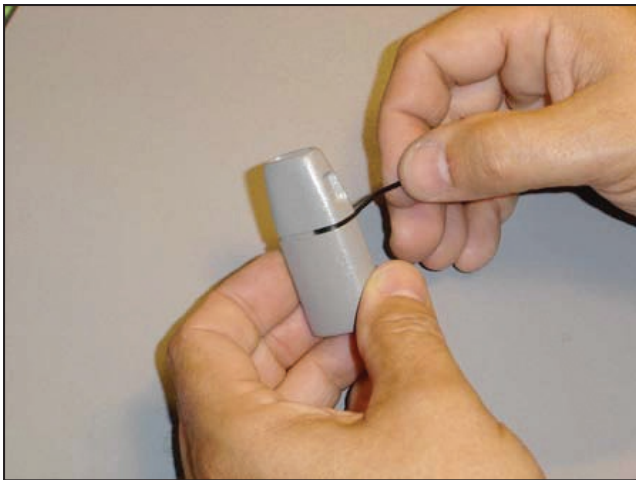
Step 45: Using 5-minute epoxy, affix the Omni-Scan Sensor Array to the base graphic as shown.



Step 46: Apply the black graphics to back end of the tricorder as shown.



Step 47: Paint the interior of the scanner recess gloss dark gray.



Step 48: Apply the graphics to the scanner as shown.



Step 49: Place the square-shaped “hook” side of the Velcro on the scanner and a strip of the “looped” side of Velcro in the tricorder pocket as shown.



Step 50: Your tricorder is complete and should look like this. Enjoy!

IMPORTANT NOTES:

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