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**#PRP1740**

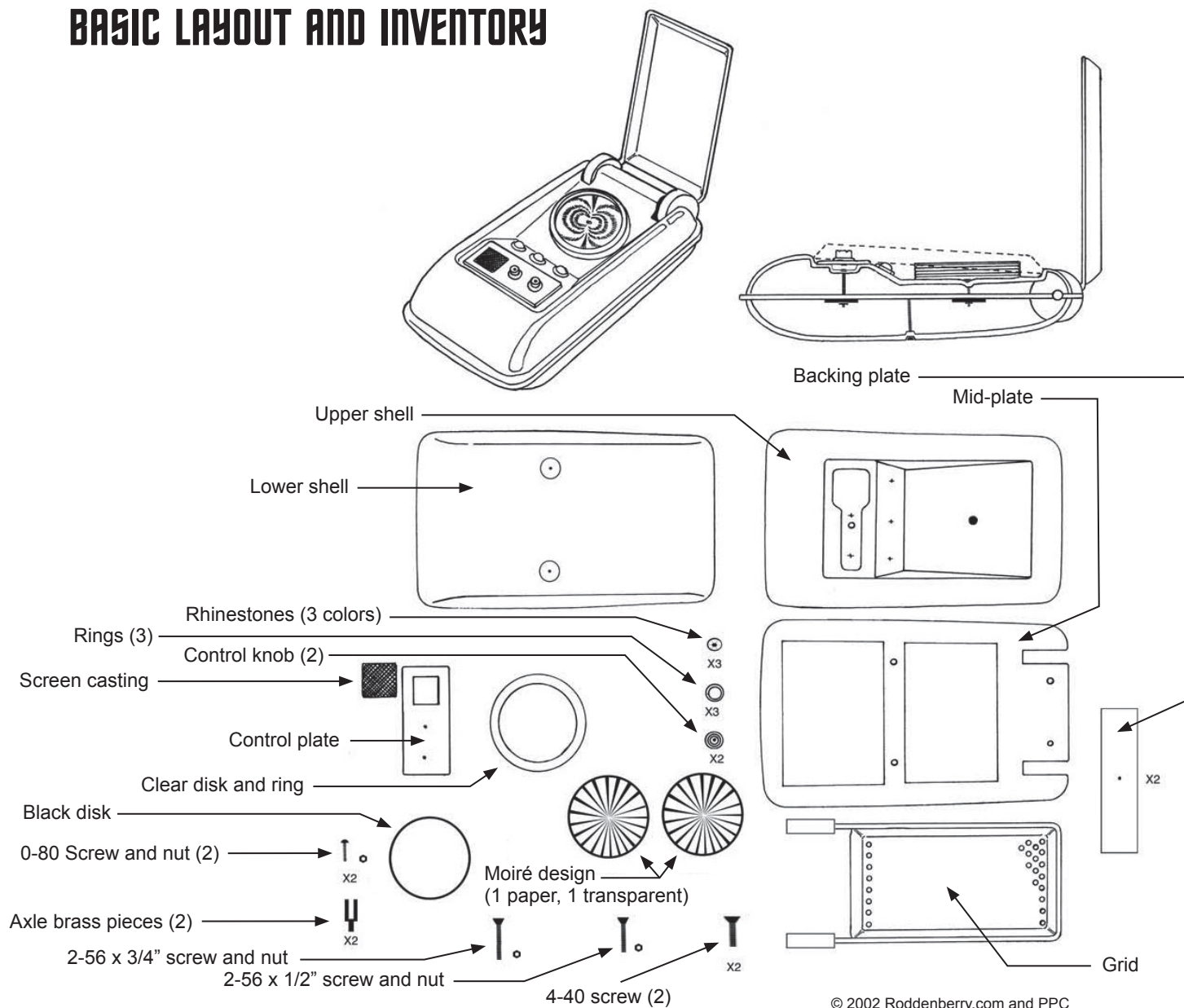
# ***Star Trek*™ TOS Communicator Prop Kit Assembly Manual**



***Roddenberry.com*** presents a prop kit of **The Original Series Communicator**.

This is the standard issue communication device for Starfleet of the mid-23rd Century as seen on numerous episodes of *Star Trek: The Original Series*.

## BASIC LAYOUT AND INVENTORY



## TOOLS AND SUPPLIES NEEDED:

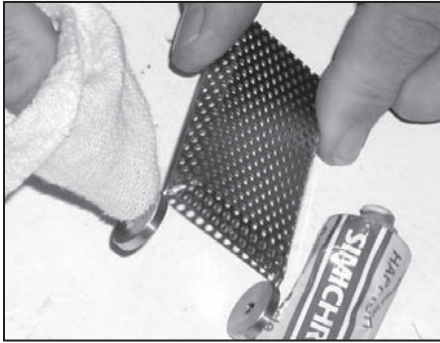
- Hobby razor saw
- Hobby knife
- Brass wire brush
- 5-minute epoxy
- Hot glue gun and glue sticks
- Toothpicks
- Tweezers
- Philips head screw drivers (size #1 tip and jewelers size)
- Power drill with 3/32" drill bit

### Optional:

- Metal polish
- Clear lacquer spray paint
- Countersink bit
- Silver or gold paint
- Baking soda

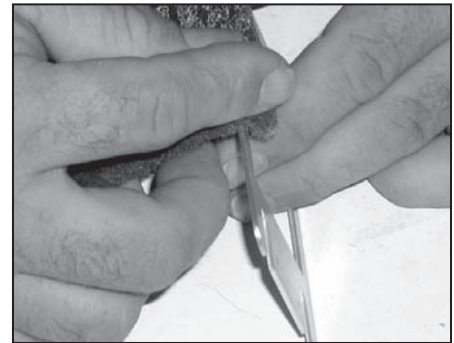
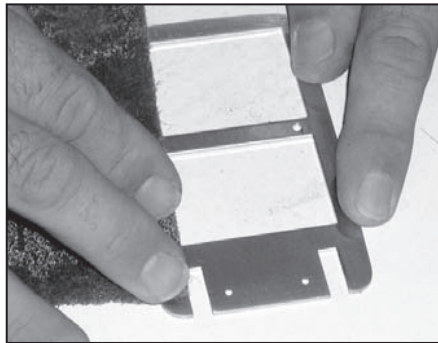
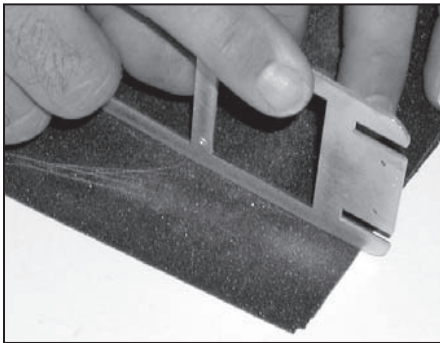


## GRID AND PARTS PREP:



**Step 1:** The brass grid can be polished with a brass-polishing compound. You can spray a lacquer coating over the polished and cleaned grid, if you desire to. But leaving off the lacquer is recommended, so you can clean and re-polish when the grid gets dull or oxidizes.

**NOTE:** If you lacquer coat the grid, you will not be able to polish it again.



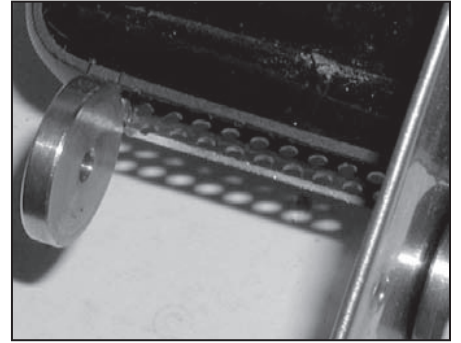
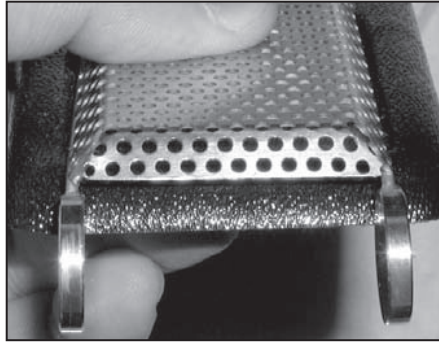
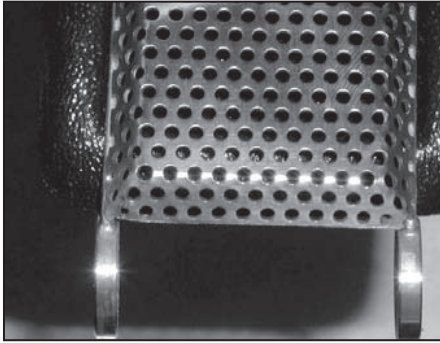
**Step 2:** Sand around the edges of the mid-plate to remove the rough edge. Blend the sanding grain with the green scratch pad. Run the grain with the long direction of the mid plate. You can polish the mid plate up with chrome polish, or jeweler's rouge, to make it as shiny as you please.



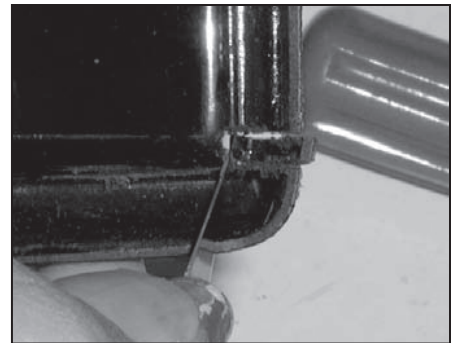
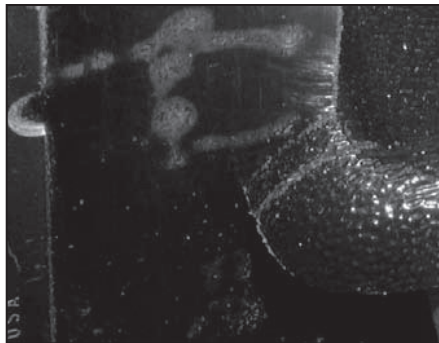
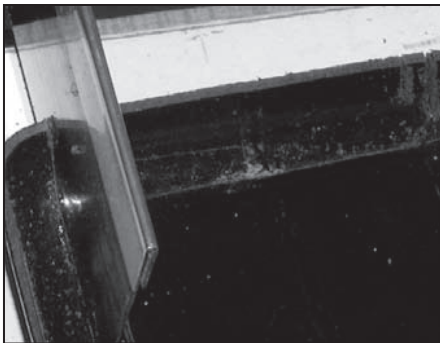
**Step 3:** Flat sand (with 180 - 220 grit) the flat edges of the upper and lower black body shells just enough to get rid of the die cuts, and to even the edges. **Don't press too hard. Let the sandpaper do the work.**



## ASSEMBLY:

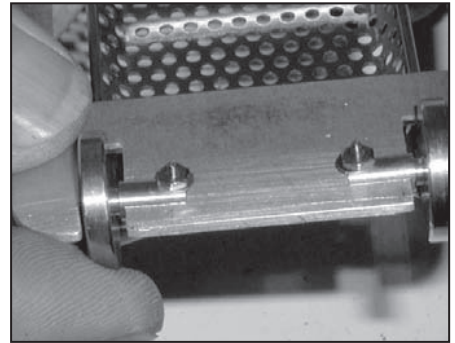
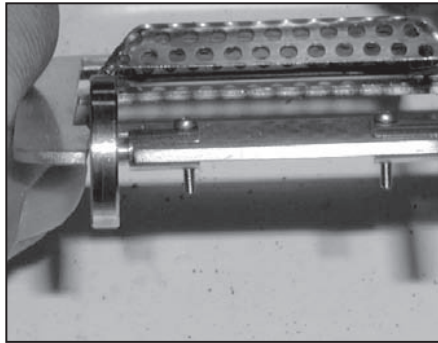
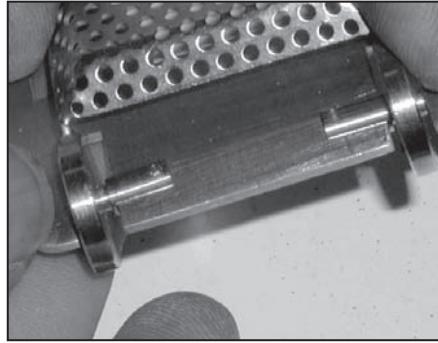
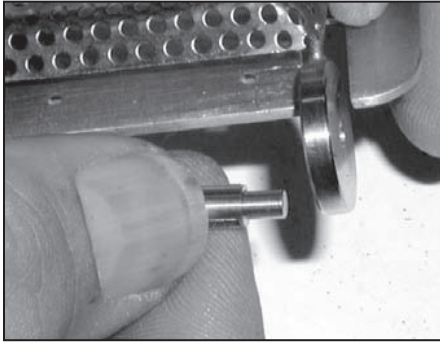


**Step 4:** Lay the grid on the upper shell with the opening facing up. Square it up to where it looks even with the top and side edges. *The wheels will overhang the body, and in the next step, you will use a razor saw or hobby knife to mark close to the edges of the wheels.*



**Step 5:** Mark on the upper shell where each side of the wheels sits as close as possible. Squarely make the 2 cuts down to the top of the inside lip. Cut across the 2 cuts in each slot and remove the plastic strip. Test fit the grid to make sure it fits all the way to the front end of the shell. File the slots where the wheels fit in. *Do not over cut or over file the slots. You want the slots to be just big enough to fit the wheels.*

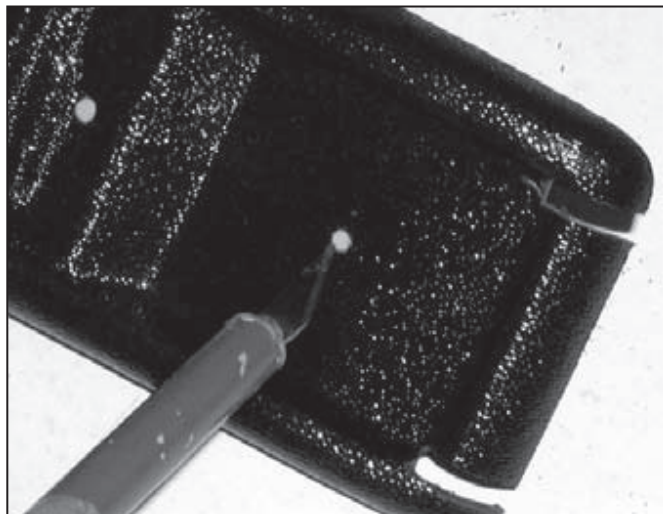
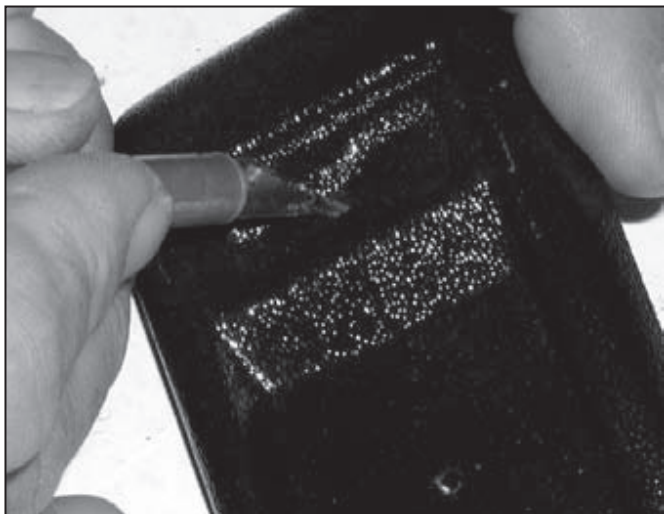




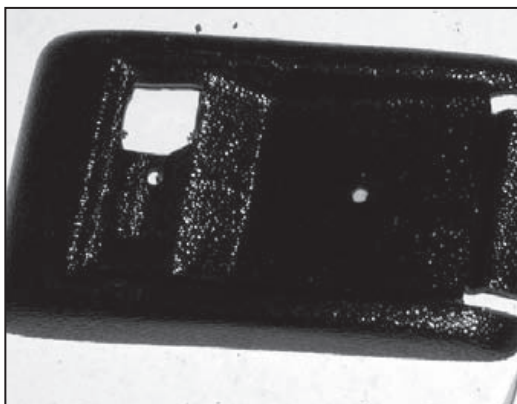
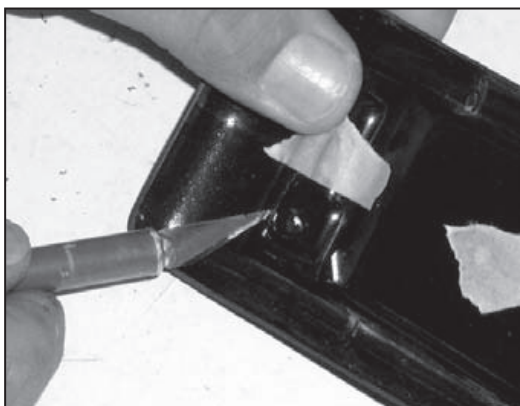
**Step 6:** Place the two axle brass pieces into the grid wheel holes. With the slots on the two axles aligned, slide the grid assembly onto the mid-plate. Place the 0-80 screws into the through holes, and put the star washers (or lock washers) and nuts onto the screws and tighten.



**Step 7:** Place the top shell on the mid-plate, and check the fit to see if the grid closes easily. If too tight, file a little more towards the inside of the body to make room to slide the grid inwards. Look to see if the top shell is fitting the mid-plate evenly. There should be a small amount of the metal edge showing evenly around the top shell. Make sure you have cut away just enough plastic to fit tightly to the wheels, but still have free movement.



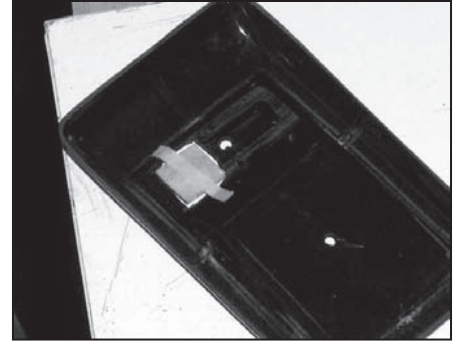
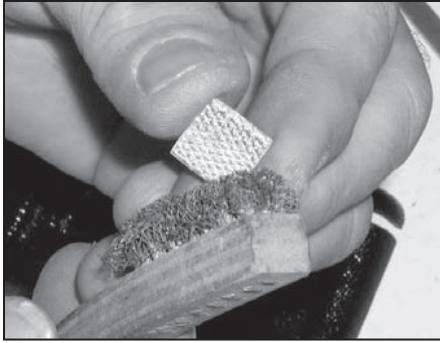
**Step 8:** Use your hobby knife, and make two holes through the plastic for the two 2/56" screws to fit through. This hole needs to be countersunk, so the Moiré ring will later fit over the screen.



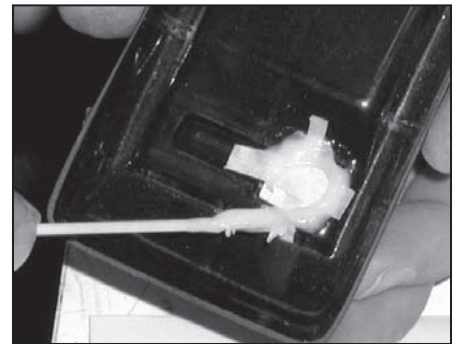
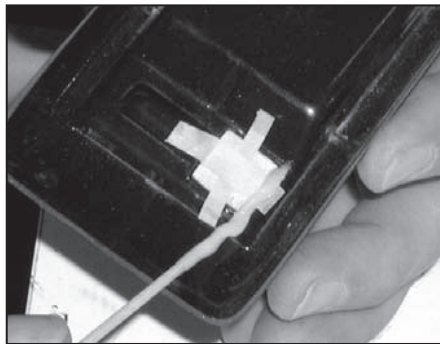
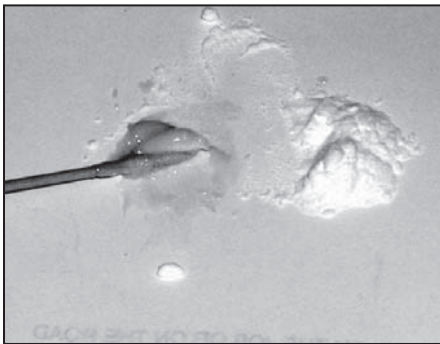
**Step 9:** Cut out the square part in the top shell. It will be about a 3/8" square that will hold the screen casting. Cut the hole just big enough for the screen casting to fit.



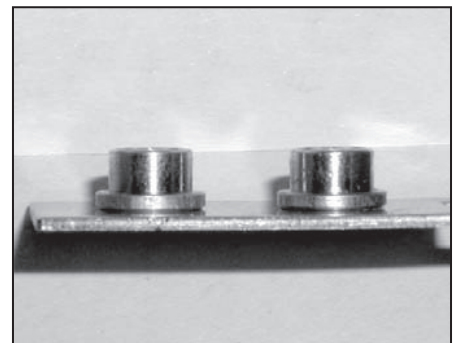




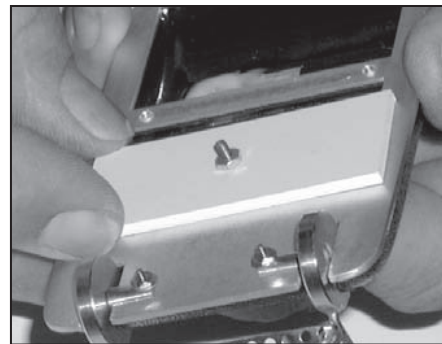
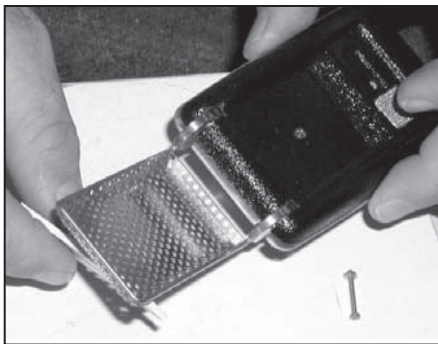
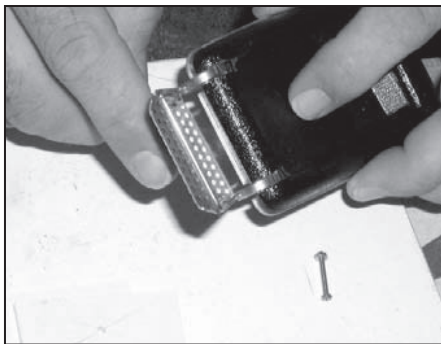
**Step 10:** You can make the screen casting a little shinier by brushing it with a brass wire brush. If you prefer, you can also paint it silver or gold, depending on your preference. Place the screen casting into the hole and position it so the screen is flush to the top of the hole. Use a strip of masking tape to hold this in place. It is recommended that you use 2 strips of tape, if possible, to keep it extra steady.



**Step 11:** Use 5-minute epoxy to adhere the screen casting. *OPTIONAL: try adding a little baking soda to the epoxy to thicken it up to a gel-like consistency, so that it won't run through the cracks around the screen.* Use enough to cover around the edges and over the top. Set aside and let dry.

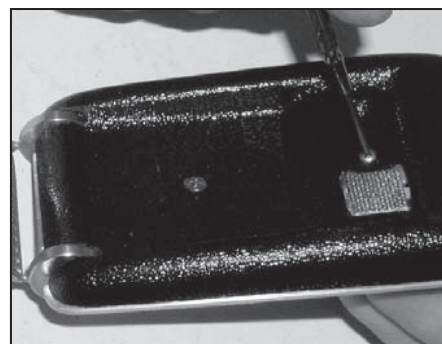
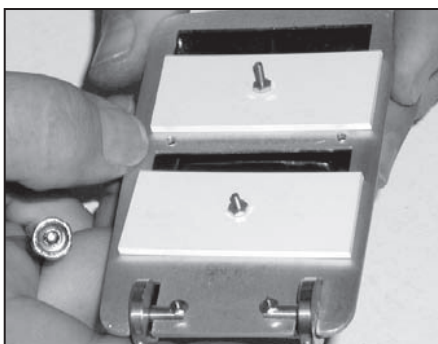
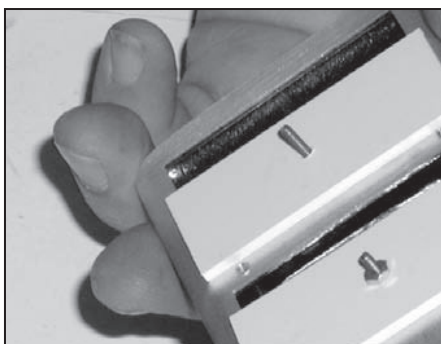


**Step 12:** Remove the plastic cover and brush the control plate with the green pad. This will give it a brushed finish look. Lay the two control knobs face down on the table. Line up the brushed side of the control plate face down over the two knobs, and line the knobs through the holes. You can either glue these with epoxy or flare out the stems with a center punch (or a small jewelers Phillips head screw driver). Just make sure the knobs fit tight to the control plate. Afterwards, set plate aside, and move on to the next step.



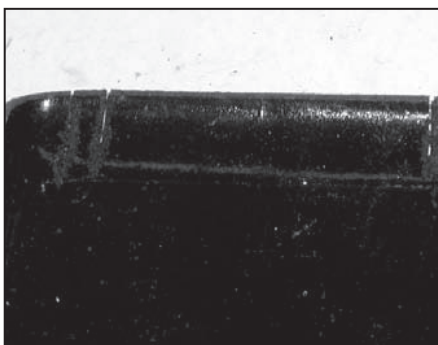
**Step 13:** Place the top shell onto the mid-plate grid assembly. Put the countersink 2-56 x 1/2" screw through the hole in the upper portion. Place the backing plate on the reverse side, and place the screw through the hole provided. Place the nut on the screw, and tighten snugly. *Don't over tighten, as this will distort the top shell.*

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**Step 14:** Repeat the above procedure with the bottom hole and the other backing plate.

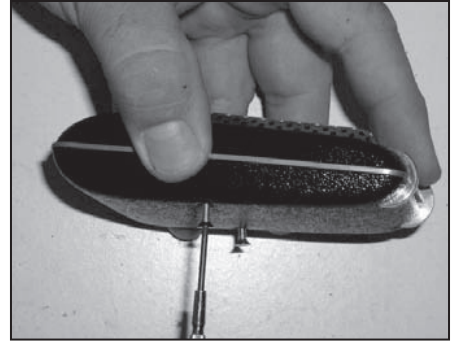
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**Step 15:** Lay the back shell onto the bottom of the mid-plate. Line up the back with the grid wheels, and mark on the back shell in the same way as you did with the top shell. Cut squarely down to the line marked inside. Cut the excess plastic strip out.







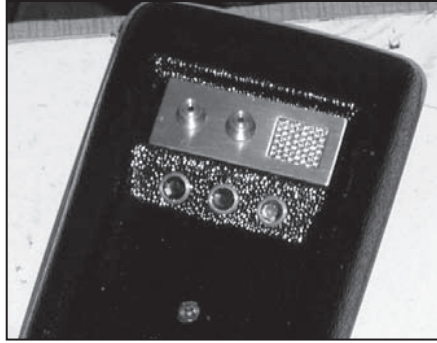
**Step 16:** File the holes flat and even to fit the grid wheels. Drill a 3/32" hole into the recessed dents on the back shell. Put the two 4-40 screws through the back shell hole and thread them through the holes in the mid-plate. ***Make sure your back shell looks even and tighten down the screws. Once again, don't over tighten, or you will cause the back shell to warp.***



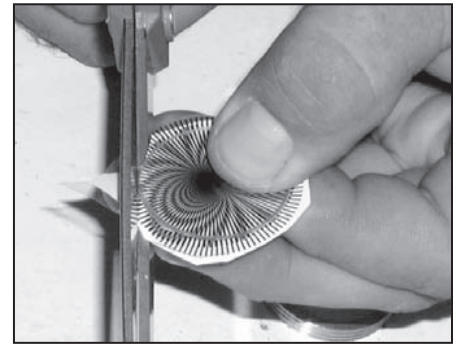
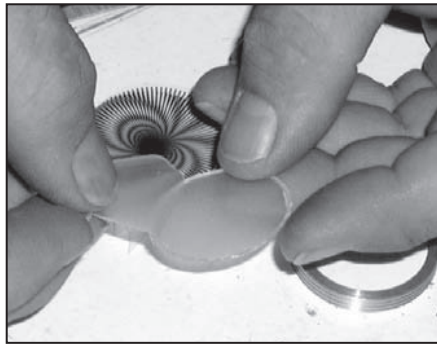
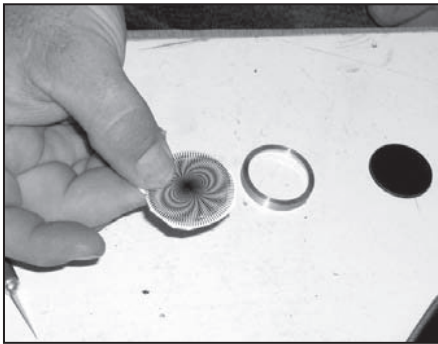
**Step 17:** The rhinestone placements are as follows: left-yellow, center-red, and right-green. Place glue on the rhinestone area with a toothpick. Use tweezers to position the stones. Place the red rhinestone in the center of the angled area. Place the yellow rhinestone on the right side of the red stone, and evenly spaced between the sidewall and the red stone. Repeat with the green on opposite side.



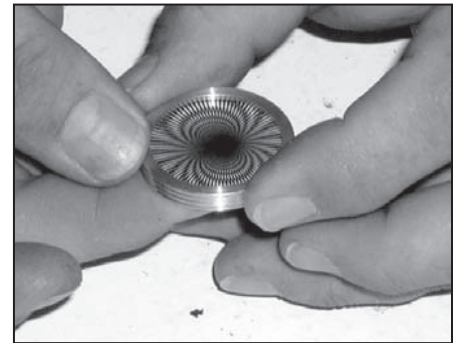
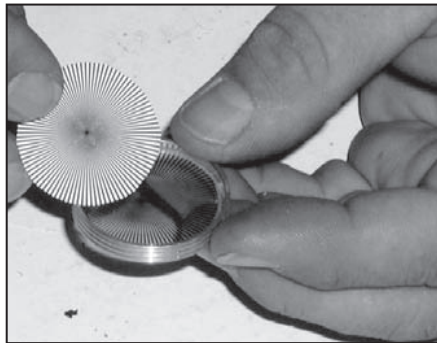
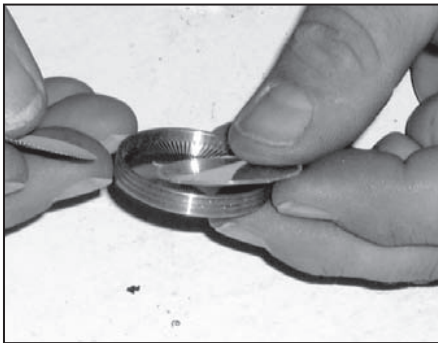
**Step 18:** Place the rings around each stone. If you used rubber cement on the rhinestones, enough glue should have "squashed" out to hold the rings in place as well. If not, apply glue to the rings, and set them in place with tweezers.



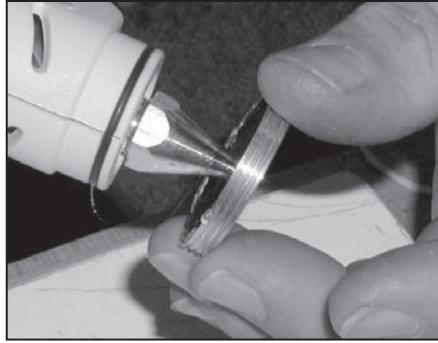
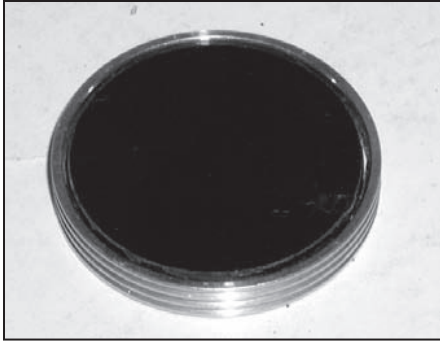
**Step 19:** Apply glue to the control plate and to the area the plate will be glued to. Place the control plate down and make sure there is an even spacing around the edges. *Make sure the screen casting doesn't get glue on it.*



**Step 20:** Prepare the Moiré design. Peel off the clear plastic protective film. Put the clear disc onto the Moiré and hold together tightly. Cut the two designs around the clear disc to the same circular contour.

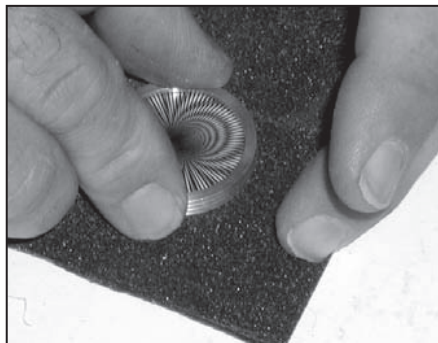
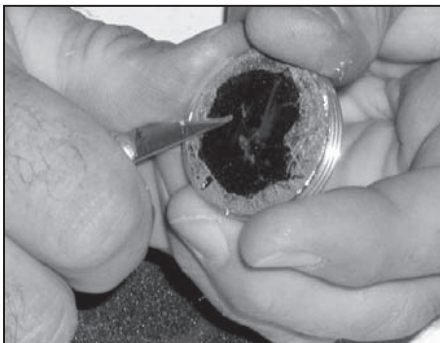


**Step 21:** Place the transparent graphic into the Moiré ring. Place the clear disc beneath this, and follow with the paper design. Turn the assembly over and rotate the paper part of the design to get the desired look.



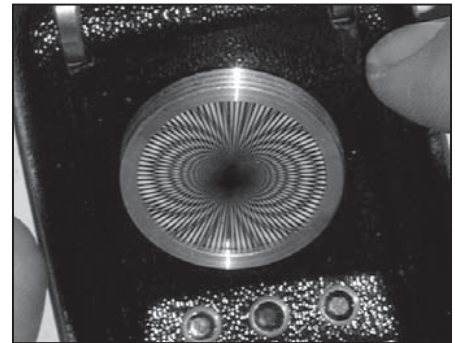
**Step 22:** Place the black disc onto the back of the Moiré ring assembly and hot glue around the edge.

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**Step 23:** After the hot glue cools, cut off the excess with your hobby knife then sand the back flat to remove any remaining excess glue.

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**Step 24:** Use hot glue to adhere the back of the Moiré assembly to the center of the top shell. Place the Moiré ring onto the center of the flat area where the holding screw is visible. Line it up, and you have...



*...a completed Communicator!*



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#### **IMPORTANT NOTES:**

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