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#PRP1777

Star Trek™ V: The Final Frontier

Star Trek™ VI: The Undiscovered Country

Assault Phaser Prop Kit Assembly Manual



Roddenberry.com presents the **Assault Phaser Prop Pit** as seen in the last two motion pictures featuring all of the Original Series main cast: ***Star Trek V: The Final Frontier*** and ***STAR TREK VI: The Undiscovered Country***. This is a faithful 1:1 scale kit configured as a hero prop with a sliding pistol hood, removable energy cell magazine, machined aluminum parts, and even a removable Phaser 1 inset into the pistol; and is made so electronics can be added if desired.

Electronics are not included, nor are there any specific instructions for adding electronics to this kit.

PARTS INCLUDED:

- Main Pistol Body (left and right resin castings)
- Sliding Hood (with vacu-formed insert)
- Magazine (with cover plate, rubber grip detailing, and laser cut parts number plate and milk plex detail)
- Phaser 1 (translucent solid casting)
- Phaser 1 main body retainer
- Machined aluminum emitter (with clear acrylic insert)
- Setting Knob with retainer
- Machined aluminum radiator
- Green LED (solid casting) with holder detail
- Trigger
- Bullet Catch with retainer
- Neoprene foam
- Black felt
- 2 screws
- 2 magnets
- 2 @ 1/8" square plastic blocks



MATERIALS/TOOLS NEEDED:

- Sandpaper (320-400 grit)
- Sanding stick(s) (available at hobby stores or make your own) and/or small jeweler's files
- X-Acto or similar hobby knife
- Small Philips screwdriver
- Automotive spot putty
- Bondo or similar plastic filler
- Cyanoacrylate (CA) glue (thin and gap-filling slow-set thick recommended)
- Accelerator for CA glues
- 5-minute epoxy
- Masking tape
- Scissors
- If you have one, a Dremel tool with appropriate bits may be helpful but is not required.

PAINTS NEEDED:

- Black primer (not gray)
- Krylon Dull Aluminum

Optional:

- Semi-Flat Black
- Testors buffing metalizers such as Gunmetal or darker gray shades
- Graphite lubricating powder
- Clear spray (matte to gloss)



GENERAL INSTRUCTIONS:

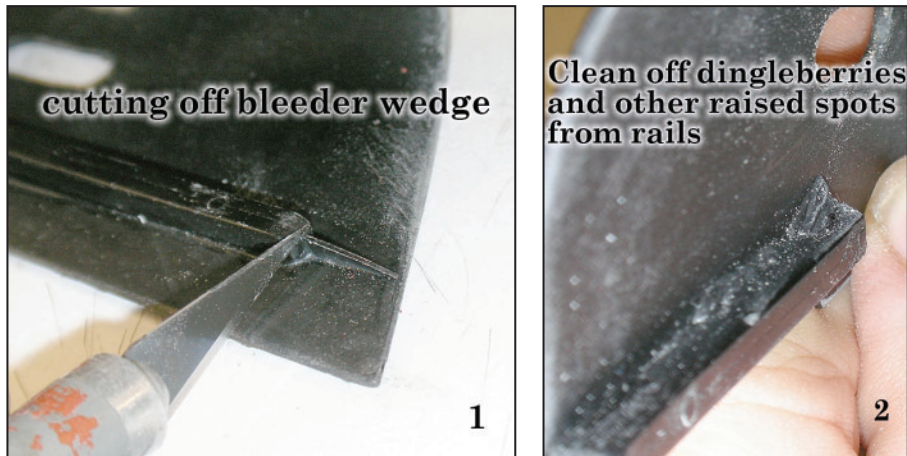
Painting:

Black primer will be all you'll need. This can be rubbed with a cloth to give it an attractive "used" finish like that seen on replica firearm props, or left alone. You can likewise spray a paint finish such as a semi-flat black, or for a very dark metal look try one of the dark gray/black Testors metalizer paints. You can also very lightly rub on or dry brush a metallic silver/aluminum on top of the black to give your phaser a metal look, or some graphite powder (like that used as a dry lubricant for locks, available at hardware stores), but you will need to use a clear spray coat over a rubbed graphite or silver finish, or it will come off.

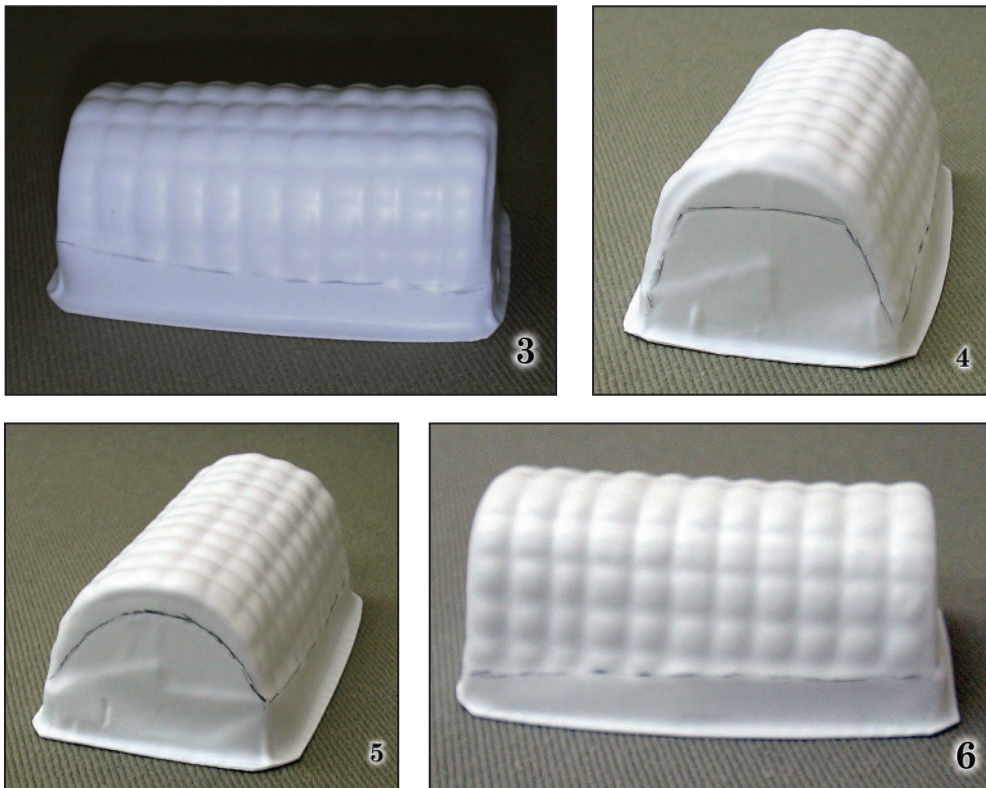
Parts Prep:

Sand all mold lines/edges and sprues until smooth. Fill in any objectionable spots such as remaining mold lines and bubbles with automotive spot putty and sand smooth, including on the translucent Phaser 1 casting, as most of this part is painted. Test fit your parts to be sure it all works. Sand off any paint on surfaces where you'll be gluing, as glue doesn't stick as well on painted surfaces.

SLIDING HOOD:



Step 1: Clear away all sprue/ bleeder wedges [Fig. 1] and possible dingleberries/raised spots [Fig. 2] from the inside track blocks using your knife and/or sanding stick or file -- this will solve practically all the problems you may encounter with the sliding hood staying in place on the phaser body.

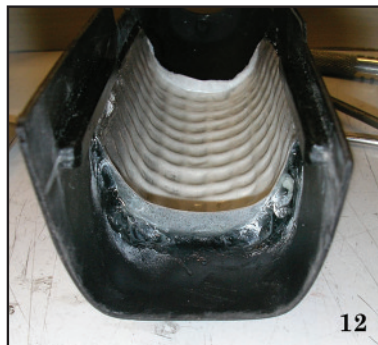
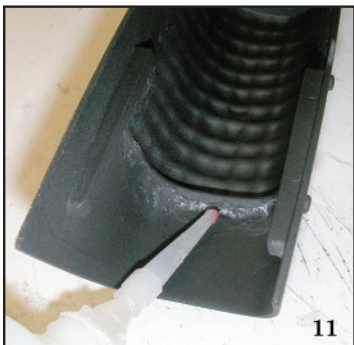
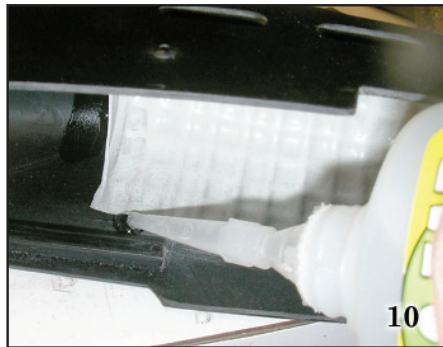


Step 2: With the vacu-formed insert piece (referred here as the “corncob” due to its surface detail resemblance), mark with a pencil where it needs to be cut away [Figs. 3 to 6]. Then using a knife or other tool, carefully cut the part where you’ve marked it -- do not over-cut this as you’ll need the flanges at both ends for stiffness. If it’s a white part, spray black primer both outside and inside; if it’s already black, you’re okay. Spray Krylon Dull Aluminum on the outside (only) as a very light almost mist coat. The hollow inside of the corncob must be black as this will be visible on the finished slider when it is extended [see Fig. 13].



Step 3: Paint the outer hood, it should be as finished as possible before you glue on the corncob.

Insert the corncob into the sliding hood (smaller end towards the front), then place the hood onto the pistol body and slide all the way back (closed) [Fig. 7]. If you cut the corncob according to the pictures, you should already have clearance over the top front of the pistol. Locate the corncob so the front edge is just at the front of the pistol body, then place a drop of **thick** CA glue on to tack the corncob in place, and use CA accelerator for fast glue curing [Fig. 8].

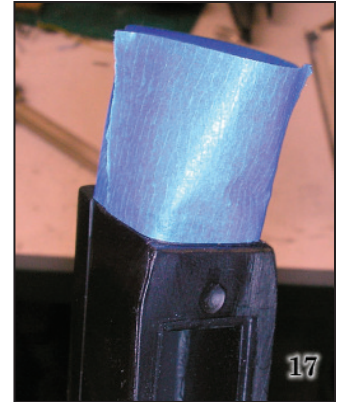
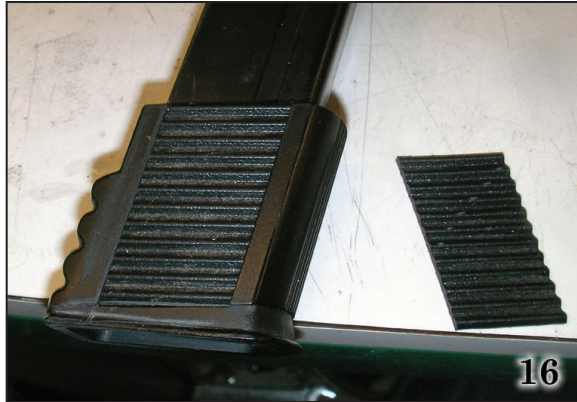
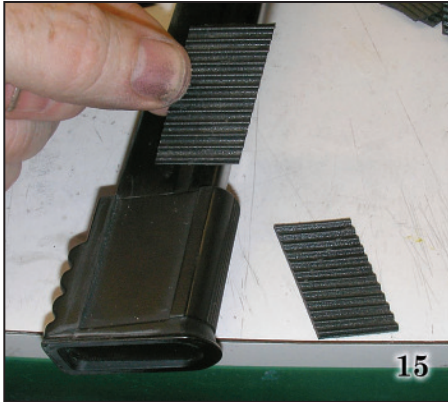


Step 4: Remove the hood, then tack on the back of the corncob at the center [Fig. 9]. Once in place, glue the two side edges [Fig. 10], then build up glue along the two curved ends [Figs. 11 and 12]; this will take a little time. Be sure you don't get glue inside the two parts where it may drip out the hood slots. This process will make the hood assembly that much stiffer and will help greatly in making sure it won't pop off your phaser on its own [Fig. 13].



Step 5 (after main body gluing but before it's painted): Try the slider on the phaser, making sure there is nothing interfering with the slide action; not only with the body, but also with the Phaser 1 -- if the corncob edge(s) is hitting either part, sand or grind away the affected edges until you have clearance, leaving as much corncob flange as possible [Fig. 14].

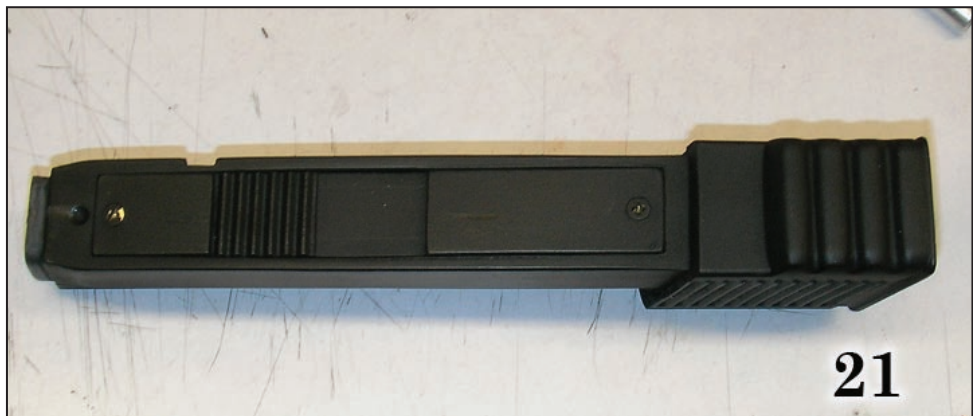
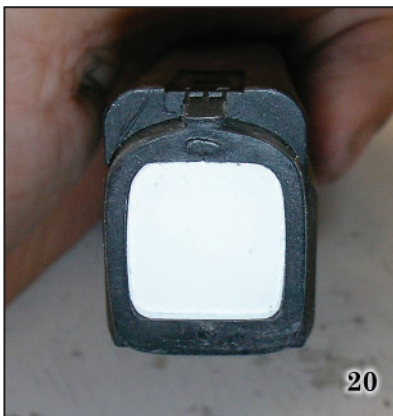
MAGAZINE:



Step 6: After basic part preparation, glue on the left and right rubber ribbed details on the butt end of the magazine [Figs. 15 and 16]. Be sure the upper edge is in line with the block, or else the magazine might not be inserted all the way in the pistol. For painting, mask off the top area where this fits into the bottom of the Phaser 1 [Fig. 17] and spray the magazine black.



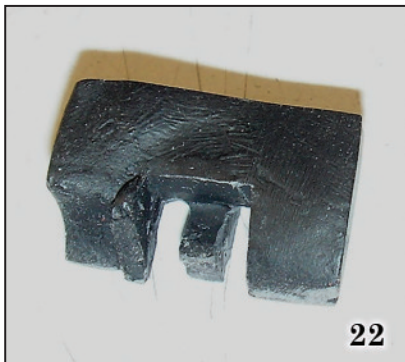
Step 7: After painting, glue on the number plate [Figs. 18 and 19].



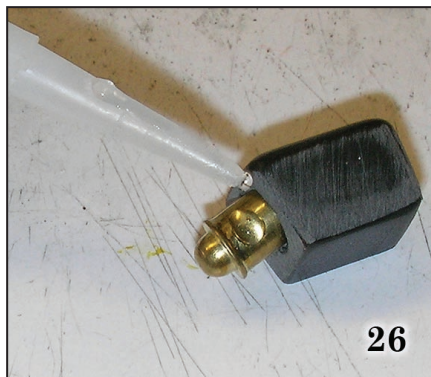
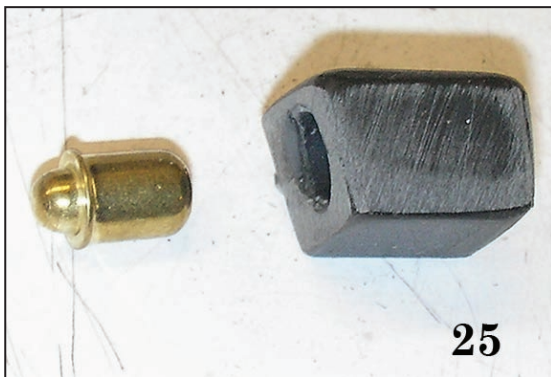
Step 8: The milk plex part can be glued on at this point [Fig. 20], but if you wish the magazine top to light up (which will illuminate the clear part of the Phaser 1 with the magazine in place), you'll need to drill the top for a LED or other light and set up the hollow interior for batteries and a switch, as it will be more difficult to retrofit a light later. Screw on the cover plate and it's done [Fig. 21]!



MAIN PISTOL BODY:



Step 9: On the left side: glue the setting knob retainer in its place [Figs. 22 to 24]. This retainer is designed to secure a small potentiometer or a digital switch with a 5/32" diameter straight turn-knob (not included in the kit). The metal part is drilled to press-fit onto such a knob, so if you have this switch you can secure it on the phaser. Otherwise the metal knob will be glued on later as part of final assembly and will not be able to turn.



Step 10: On the right side: take the bullet catch [Fig. 25] and glue into the bullet catch retainer using CA [Fig. 26], being careful not to get glue in the moving metal core or its spring.

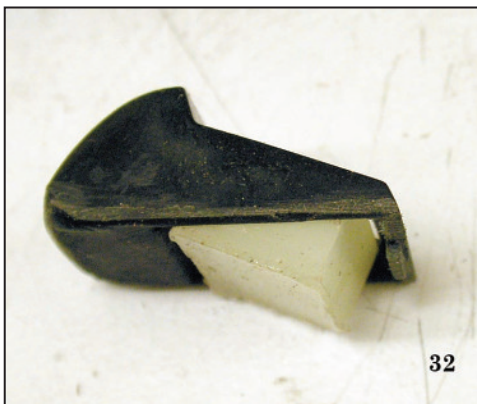
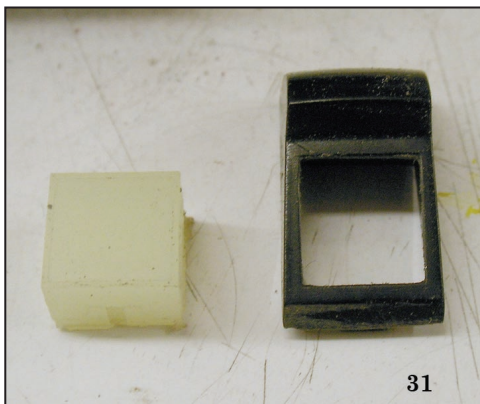


Step 11: Place the magazine in its well and put the catch assembly in its slot [Fig. 27 and 28]. The bullet catch can be moved forward in the slot to press into the indent on the magazine -- this is the only part that will keep the magazine in place on the assault phaser so be sure it's fairly tight [Fig. 29]. Once it's where you want it, glue in place with CA.





Step 12: The trigger is set up to hold a small tactile push button switch (not included), but for a dummy prop, cut a small piece of the neoprene foam and stick onto the phaser. Place the trigger on its post, then glue the trigger to the foam so it will have a sort of “firing” action [Fig. 30].



Step 13: Paint in black the LED holder that goes on the back of the phaser [Fig. 31]. A solid green LED casting is provided, but you may use a vintage HP square LED if you like. Insert in the holder and glue in place [Fig. 32]. You will have to file some of the square hole in the main body at an angle for this assembly to fit properly [Figs. 33 and 34].

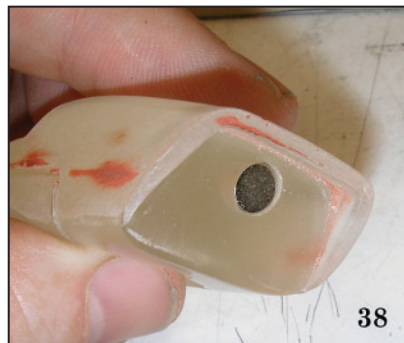
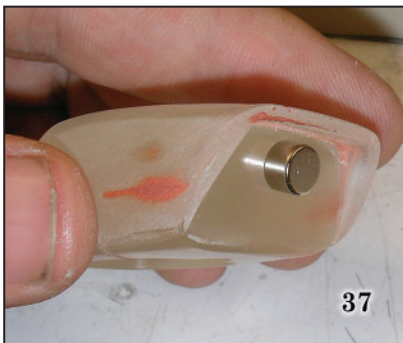


Step 14: Glue the two small 1/8" blocks into the track on both sides of the phaser body [Fig. 35] -- these will keep the sliding hood from sliding off the phaser -- then fill in and sand the cracks and sand the blocks until flat [see Figs. 48 and 53]. *These may become part of the next generation castings of the Assault Phaser in the future, so if that becomes the case, then this step will not be needed.*

Step 15: When the internals of the main body are all good, glue the two halves together with thick CA, making sure you don't have any glue where it will interfere with moving parts (the trigger area, etc.). Be sure you squeeze the halves together before you use accelerator. Add more glue if needed.



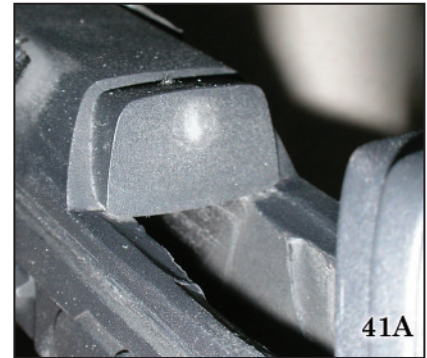
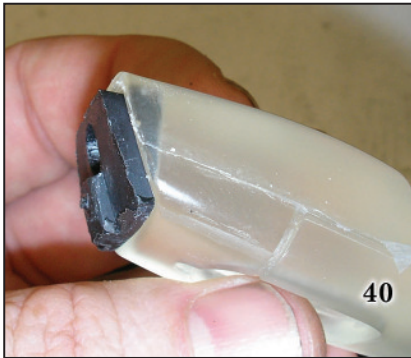
Step 16: Sand the inside magazine well in the hand grip on both sides along the seams [Fig. 36], this will help in preserving the finish on the magazine as you slide it in the phaser.



Step 17: With the Phaser 1, place one magnet in its hole [Fig. 37] and glue in place with thin CA, preferably inset slightly [Fig. 38]. Bondo the magnet and sand smooth.



Step 18: With the Phaser 1 retainer, determine which side of the second magnet sticks to the Phaser 1 magnet; this side should be facing on the smooth side of the retainer block. Glue the second magnet in place [Fig. 39], and likewise bondo the hole and sand smooth.

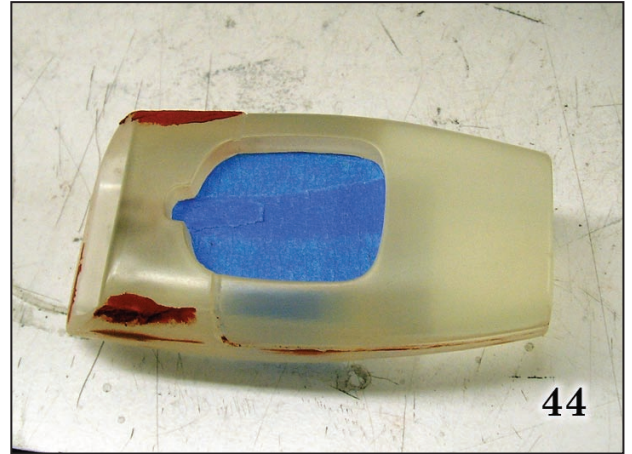
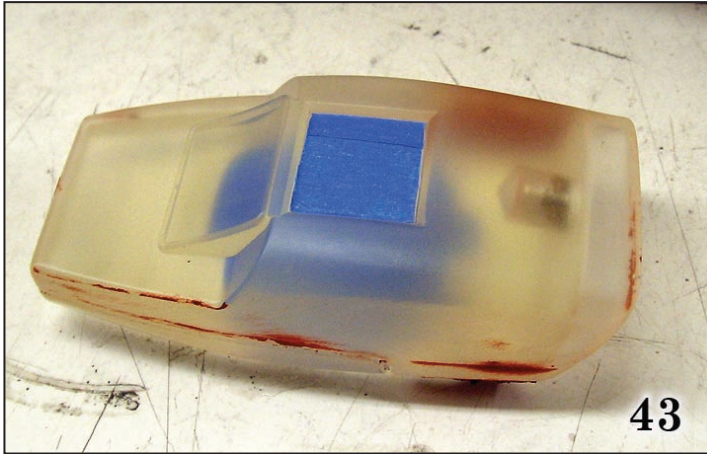


Step 19: Test fit the retainer onto the phaser body. Try to get the two surfaces located as tight as possible, and file the retainer and/or the body if needed. Before gluing the retainer in place, slide the magazine in all the way. Insert the magnetized retainer onto the Phaser 1 [Fig. 40], then insert the Phaser 1 in its place flat on the magazine and on the main phaser body with the retainer in its square slot -- don't worry if you have a minor gap as long as all parts line up properly [Fig. 41]. Glue the retainer onto the main body. If you did it right and with the Phaser 1 in place, the magazine should slide and lock in the assault phaser and into the Phaser 1 without dislodging it, and the Phaser 1 will remain in place using magnet power with or without the magazine and won't shake off in normal prop play -- also the Phaser 1 will snap in place without interference with the magazine. Be sure to add more glue onto the retainer and then fill in the crack with spot putty and sand smooth [Fig. 41A].



Step 20: Fill the main bisecting seam with bondo [Fig. 42], then after sanding, use spot putty to fix any bad spots. There's certain spots where filling isn't necessary (where the radiator is inserted, the upper front of the body that's hidden by the sliding hood, etc.). Spray with black primer and finish to suit.

PHASER 1:



Step 21: With a magnet in place and all else filled and sanded, apply masking tape to the top square area [Fig. 43] and the bottom well where the magazine is inserted [Fig. 44], then spray in black like the main phaser. Remove the tape to reveal the two clear windows [Figs. 45 and 46].

FINAL ASSEMBLY:



Step 22: The sliding hood, once the two stop blocks are in place on the body, has enough flex so it can be put on the phaser by snapping in place over the body, and can be removed the same way if needed. Glue the clear acrylic core into the emitter with 5-minute epoxy, machined (stepped) end out and approximately 1/16" inset; this does not stick out the aluminum end [Fig. 47]. Remove the slider hood and glue with epoxy the emitter onto the phaser -- sand the resin hole if the emitter doesn't fit before gluing. The main emitter body is designed for rotating action, exactly like the middle ring in a TOS Phaser 2 emitter. When gluing, be sure you have a miniscule amount of space -- use two thicknesses of regular paper in between the emitter and the phaser to achieve this space [Fig. 48], and be sure you don't glue the rotating middle at all, only apply glue to the main body hole before insertion. Also be sure the emitter is glued on straight to the body.



Step 23: Glue the setting knob in place, or press in place if you have the proper electronic part or other means for securing [Fig. 49]. Glue the radiator in place [Figs. 50 and 51], and the square LED assembly on top [Fig. 52].



Step 24: Cut two small pieces of foam and stick onto both sides of the upper front “barrel” of the phaser body (with the slider off). This foam should be located in such a way that the foam will be entirely within the corncob interior when it slides back and forth [Fig. 53]. Use a small amount of CA glue on the foam, and you may want to smooth the interior corncob where it will rub to preserve the foam as much as possible. The foam acts as friction spots so the slide doesn’t work freely but only when you want it to.



Step 25: Apply the felt piece on the interior back of the main body where the back end of the Phaser 1 may run into it when inserting [Fig. 54]. The Phaser 1 inserts best with the rear end first [Figs. 55 and 56].



Your *Star Trek V and VI Assault Phaser Prop Kit* is now finished!



IMPORTANT NOTES:

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