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#PRP1750
Star Trek™ "Boomerang" Phaser Prop Kit Assembly Manual
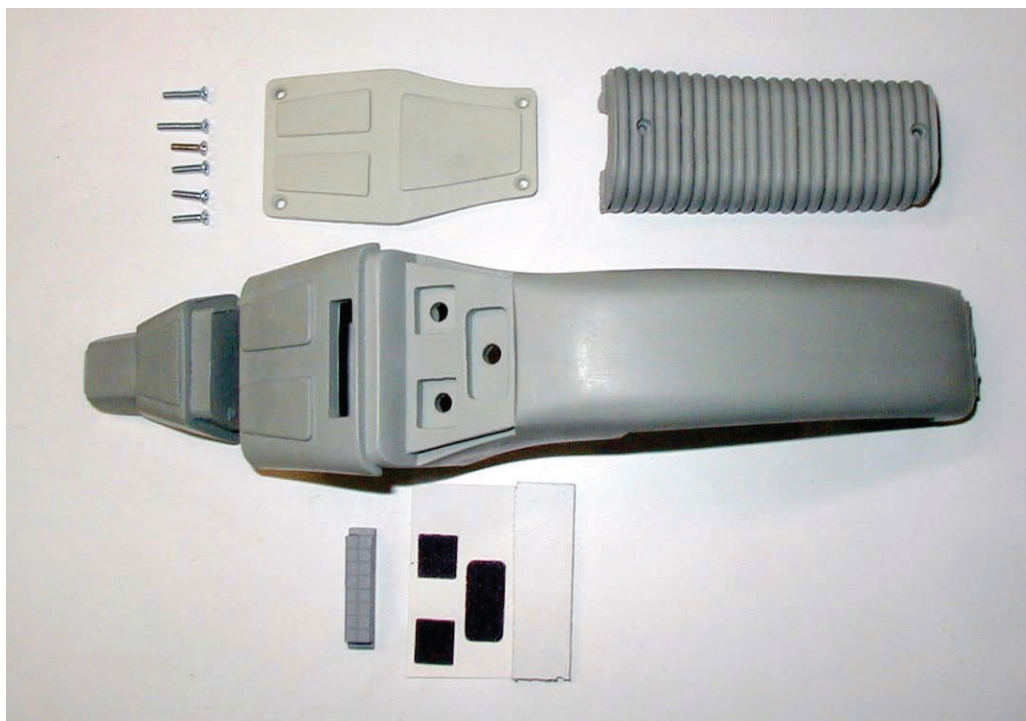
Roddenberry.com presents an easy-to-assemble **Phaser Kit** that is an ideal addition to your prop display as well as for wearing with your costume! Due to its shape, the prop makers who invented and produced them for use on *Star Trek* dubbed it the "Boomerang" Phaser.

The **Boomerang Phaser Kit** is cast hollow for light weight and electronics upgradability and features a separate grip and emitter for ease of painting.

Electronics not included with this kit.

BASIC LAYOUT AND INVENTORY

PARTS LIST:

1 Main Body
1 Grip
1 Emitter
1 Cast LED Display
1 Bottom Plate
4 2-56 x 1/4" Flathead
   Screws
1 Each 2-56 x 1/2" and
   5/8" Flathead Screws
1 Button Template
1 1/8" Sheet Plastic
   for buttons

TOOLS NEEDED:

Hobby knife
Sandpaper (150 to 220 grit rough paper,
         320 to 400-600 grit finishing)
Hand drill with 3/32" drill bit
5 Minute epoxy or cyanaoacrylate glue
  (gap-filling thick type recommended)
Auto body spot putty
Masking tape (blue "low tack" type recommended)
Glue Stik
Small hobby paintbrush
Screwdriver

Optional:
Foam weather-stripping tape
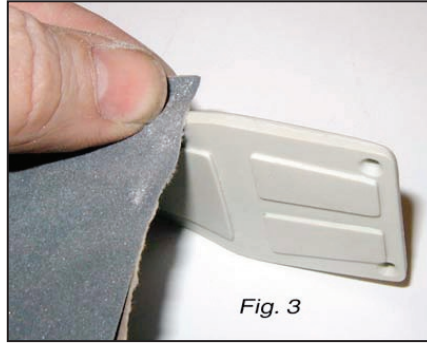
PAINTS NEEDED:

(spray paints unless noted)

Spray primer (sandable type)
Plastikote brand Medium Charcoal Gray or
  GM7173 or similar (see instructions)
Semi-flat or Gloss Black
Light Green (regular or fluorescent)
  spray or bottle paint
Metallic Blue spray or bottle paint
Antique White or Beige/Tan spray or bottle paint
Aluminum spray or bottle paint

Optional paints for a movie phaser:
Red (spray or brush-on)

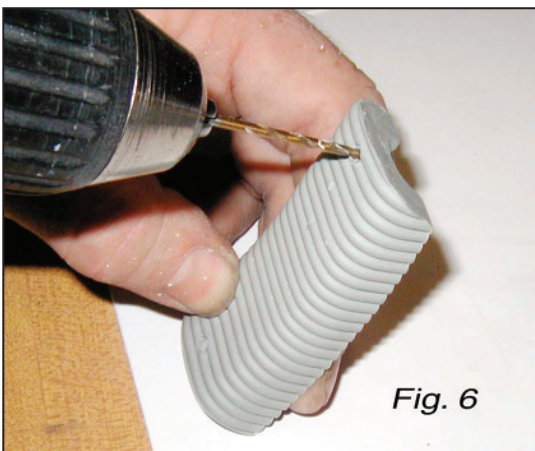*These instructions assume you are making a non-functioning "dummy" prop.*

Wash your parts with soap and water to remove traces of mold release before starting.

Fig. 2

Fig. 3

Fig. 4

Step 1: Sand all mold separation lines and sprues smooth, test fit your parts as you work. Clear the holes in the bottom plate as well as the LED display hole with your knife. Fill in any objectionable holes/bubbles and seam lines with the spot putty according to the putty manufacturer's instructions, then sand smooth **[Figs. 2 through 4]**.

Fig. 5

Step 2: Sand the rear block of the emitter and test fit in the phaser body to make sure it goes in all the way **[Fig. 5]**.

Fig. 6

Step 3: With the 3/32" drill, drill out the two screw holes in the grip. Be sure you are drilling straight. You may drill part of the way into one side of the holes, then turn the piece over and drill from the other side – this will help in giving you a good hole. Test fit and screw on the grip to make sure it works **[Fig. 6]**.
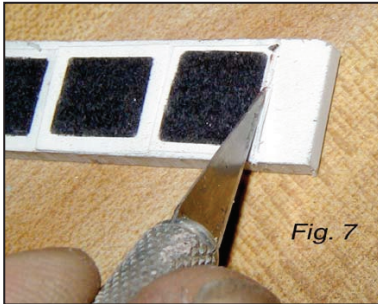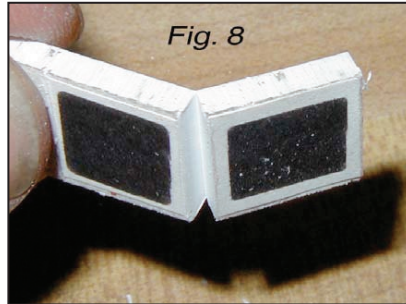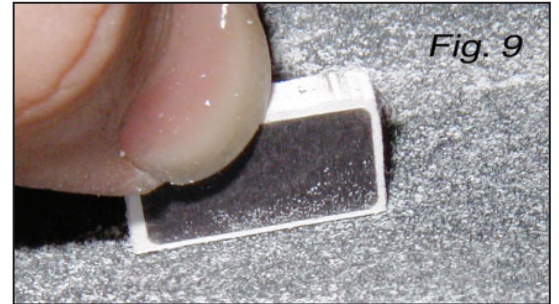
Fig. 7

Fig. 8

Fig. 9

Step 4: Make the control buttons with the supplied plastic strip and template, securing the template with Glue Stik and scoring and snapping the plastic with your hobby knife, then sand the edges to size and sand the corners round **[Figs. 7 through 9]**.
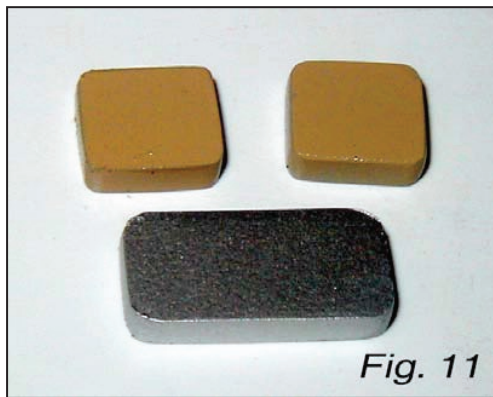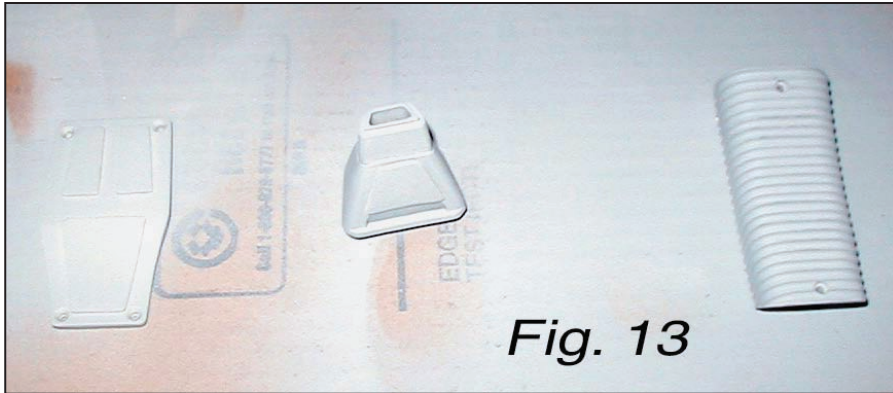

Fig. 10

Fig. 11

Step 5: Clean the residual glue off, check the fit in the holes, then spray primer and spray (or brush) paint the two small buttons antique white/beige/tan. Primer, then paint the large button aluminum (or red if you are making a *Star Trek* movie version) **[Figs. 10 and 11]**.

Fig. 12

Step 6: When you're satisfied with the smoothness of your parts, make a hook with a wire hanger and hang the main body for painting using one of the control button holes and being sure the wire doesn't interfere with your outer surfaces **[Fig. 12]**.

Fig. 13

Step 6: You may cover with masking tape any areas that will have parts glued to them, otherwise they will need to be scraped clear of paint before gluing parts. The other parts may be placed on a flat surface, and then spray primer all parts including the heads of all the screws **[Fig. 13]**.

Step 7: When dry, check for imperfections and putty and sand smooth if needed. Spray primer again and repeat if necessary.

Note: *The Boomerang Phaser for the most part was painted using Plastikote GM7173. Other medium gray metallics in a light pewter color (such as Plastikote Medium Charcoal Gray) were also used in production on the Boomerang Phaser and will give just as attractive a phaser look.*
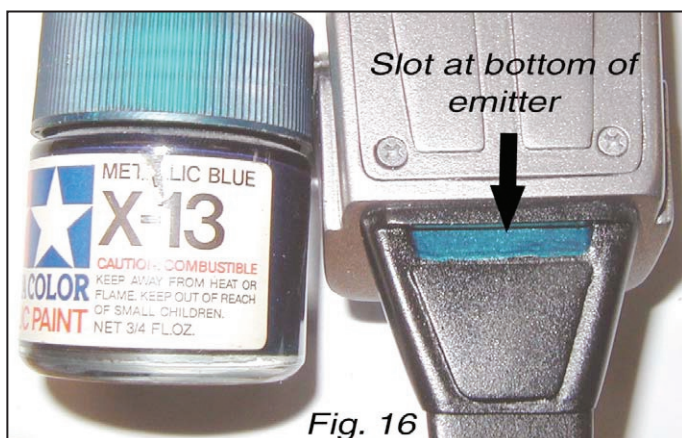

Fig. 14

Step 8: When you have a final primer coat that's to your satisfaction, spray paint with metallic gray the main body and the bottom plate, as well as the heads of the four 1/4" screws. You may wet-sand the parts with 600 grit or finer sandpaper for the ultimate smooth finish, then spray a second color coat. When you've sprayed your final color coat, set aside for several hours or overnight **[Fig. 14]**.
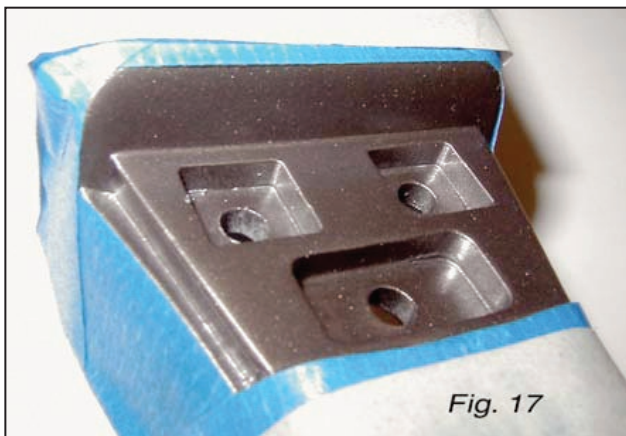
Taking your time with the paint will yield you a better finish without fingerprints from premature handling.

Fig. 15

Step 9: Spray paint in black the grip and the emitter, and your two remaining screws. Again, you may wet-sand and paint a second coat if desired **[Fig. 15]**.

Slot at bottom of emitter

METALLIC BLUE
X-13

Fig. 16

Step 10: In the bottom of the emitter is a depressed slotted area. You may mask off this area and spray a metallic blue, or brush on the blue. For a *Star Trek* movie phaser, the raised detail surrounding the front emitter hole is painted aluminum **[Fig. 16]**.

Fig. 17

Fig. 18

Step 11: After the main body paint is cured, apply masking tape so the control button section is exposed as shown, and then paint this area black **[Figs. 17 and 18]**.
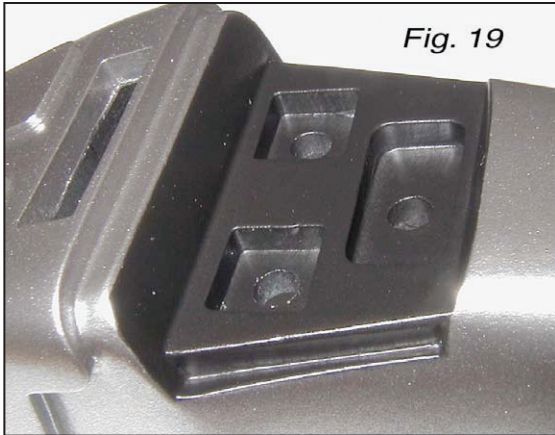
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Fig. 19

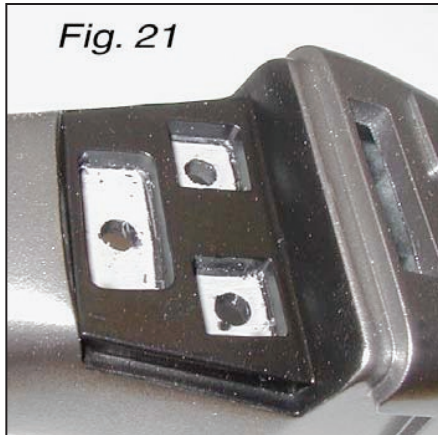**Step 12:** When cured, remove the tape **[Fig. 19]**.

Fig. 20

Fig. 21

Step 13: Glue does not stick well on paint, so scrape away the paint where you will be gluing the large square emitter hole and the three buttons (this also roughens the surfaces so the glue will stick better) **[Figs. 20 and 21]**.
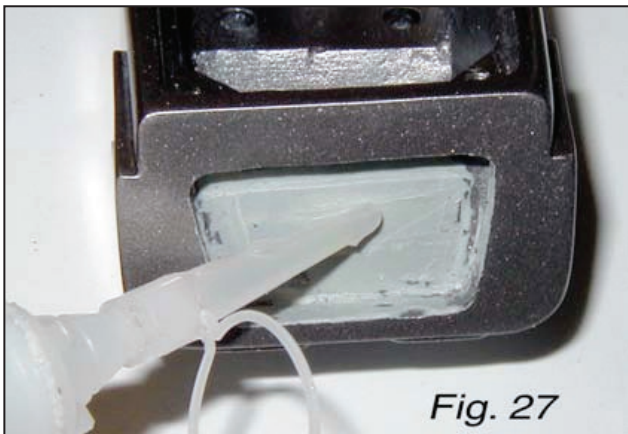

Fig. 27

Fig. 28

Step 14: Glue the emitter using either epoxy or cyanoacrylate glue, depending on how much of a gap you have inside your joints **[Figs. 27 and 28]**. Be sure you do not get glue on any outer surfaces. Allow curing before handling further.
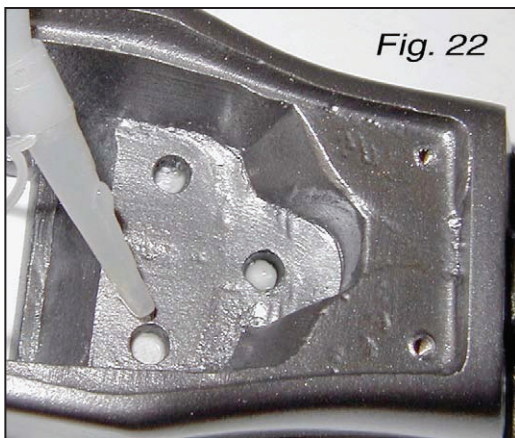
Fig. 22

Fig. 23

Step 15: Secure the three control buttons in place. This may be more easily done by placing the buttons in first and applying a drop of glue in the holes from inside the phaser cavity (hold each button in place as you do this) **[Figs. 22 and 23]**. You have an option of purchasing some thin foam weather-stripping and securing the buttons with foam inside so you can push the buttons if you want to, instead of a solid glue joint.
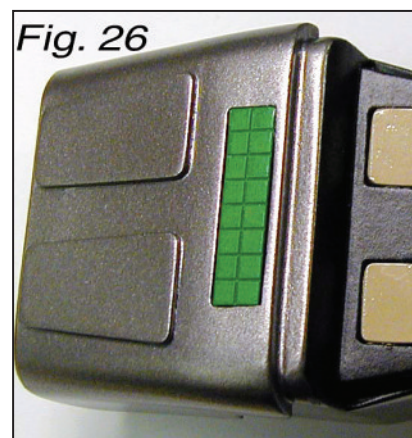

Fig. 24

Fig. 25

Fig. 26

Step 16: Spray or brush paint the top surface of the LED display with green. When dry, glue in place at the two ends; again being sure you've scraped the paint off where you are gluing the joint **[Figs. 24 through 26]**.
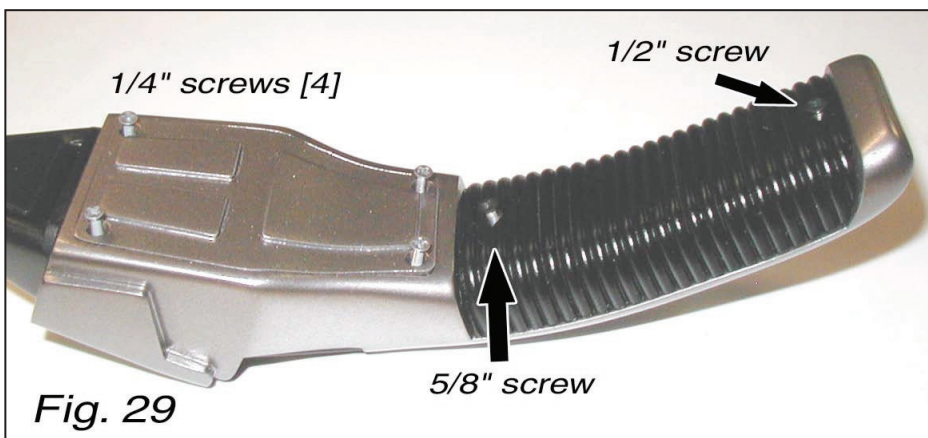

1/4" screws [4]

1/2" screw

5/8" screw

Fig. 29

Step 17: Screw on the bottom plate and the grip **[Fig. 29]**, and you're done!

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Finished Phaser!

IMPORTANT NOTES:

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