Blind Squirrel's

OUTLAW STAR

1:1 Caster Gun Replica

Assembly Instructions

Thank you for purchasing the Outlaw Star Caster Gun. This is a kit for the advanced builder that will require adjustments to some of the supplied parts. In all cases, I strongly suggest test fitting before you drill or glue anything! If you have questions, feel free to contact me directly.

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TOOLS NEEDED

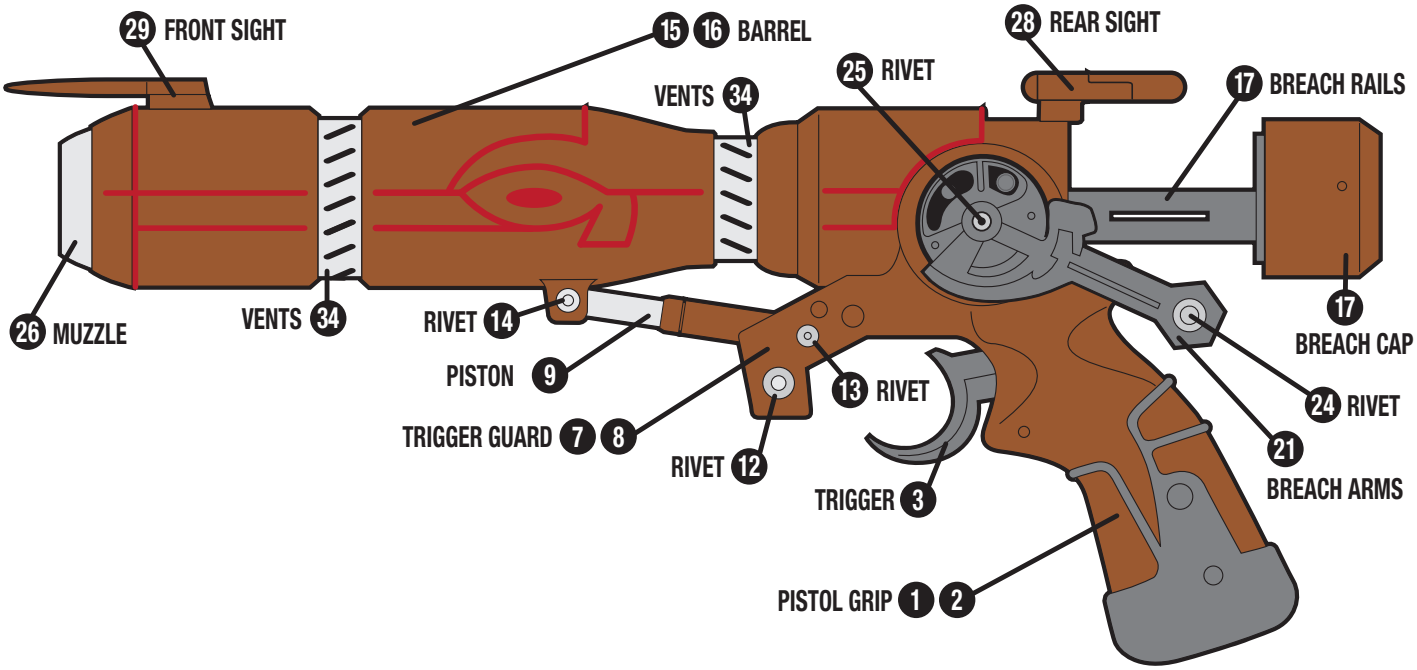
CA glue
3M automotive masking tape
sandpaper
emory boards
drill
Drill bits (1/16", 1/8", 3/16")
Xacto knife
Epoxy putty
fine tip paint brush
Dremel or comparable sanding rotary tool

PAINT NEEDED

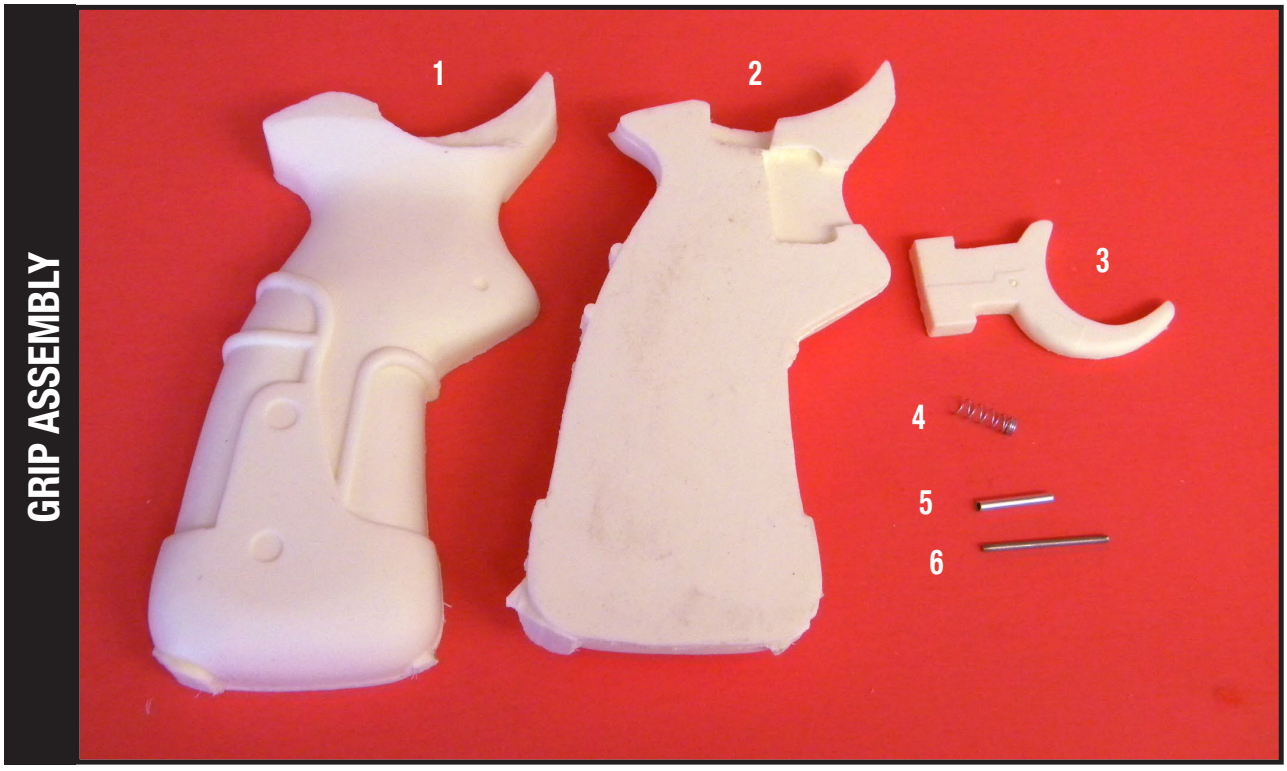
Rustoleum Filler Primer
Krylon Brown Boots
Rustoleum Matte Nickel #7277830 (Silver gun details)
Krylon Gloss Red (Barrel Piping)
Rustoleum Metallic Gold #7710 (Special Shells)
Duplicolor Acrylic Enamel Aluminum # DA1684 (#9 shell)
Duplicolor Metalcast Red metallic #MC200 (#5 Shell)

NOTE

You may notice that some steps seem to be missing as the numbers occassionally skip. I continue to update the kit and have simply removed any obsolete steps.

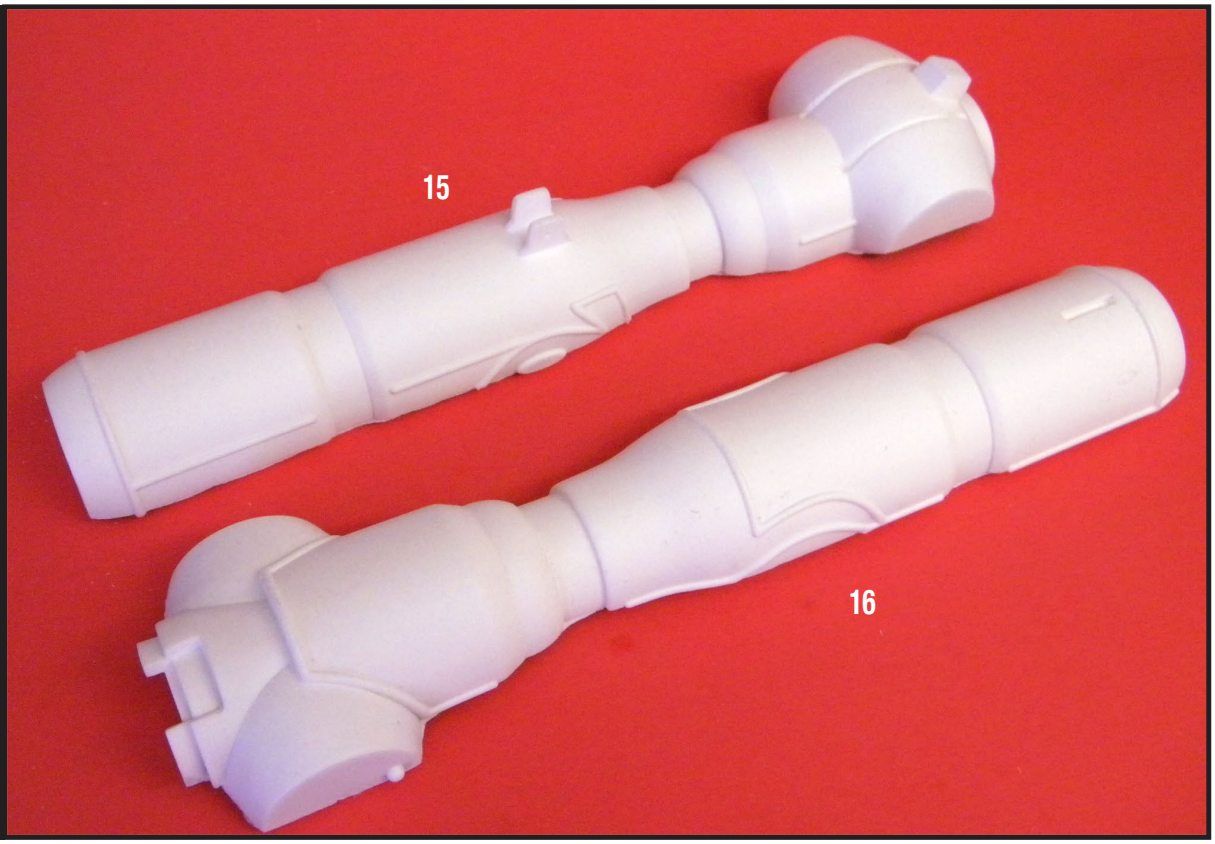


PARTS INCLUDED - Note: Pictures show parts as they will be delivered. Although I will trim off pour spouts, cleanup of "flash" will be necessary.



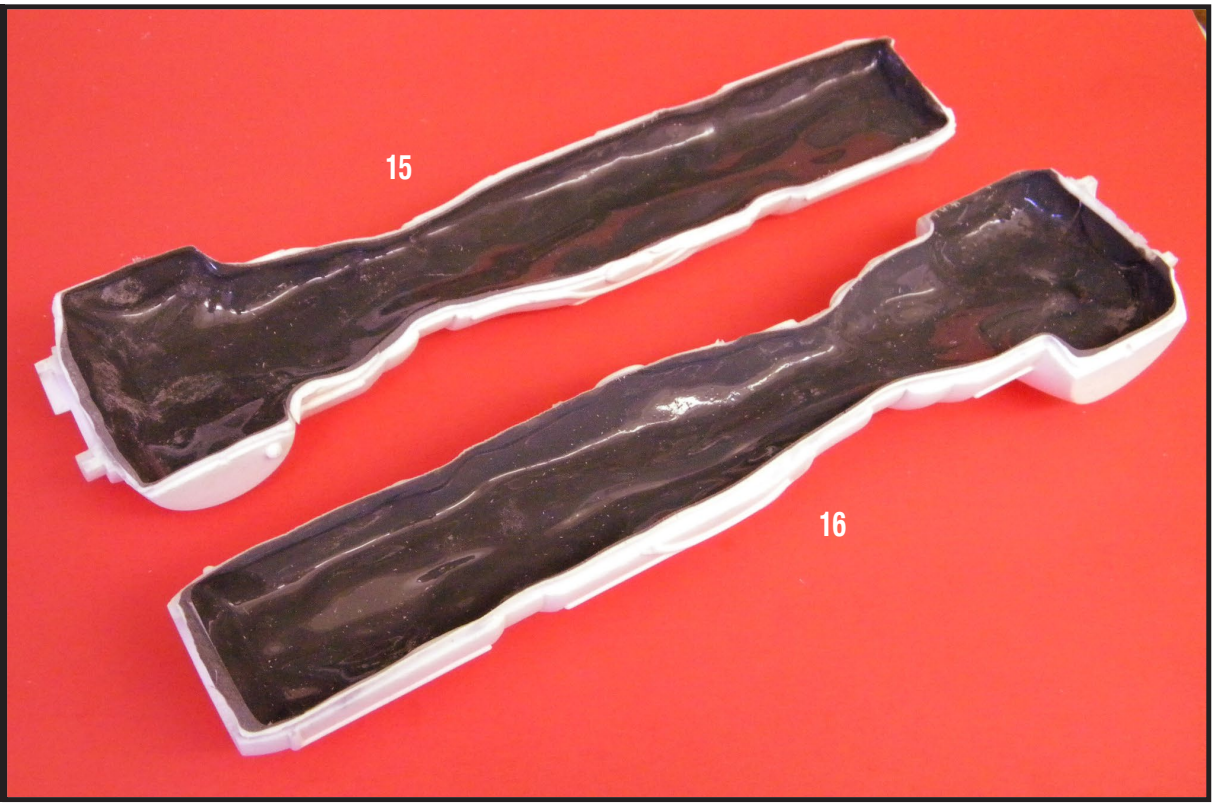
1. Pistol Grip R
2. Pistol Grip L
3. Trigger
4. Spring
5. Trigger Tube
6. Trigger Rod

BARREL HALVES

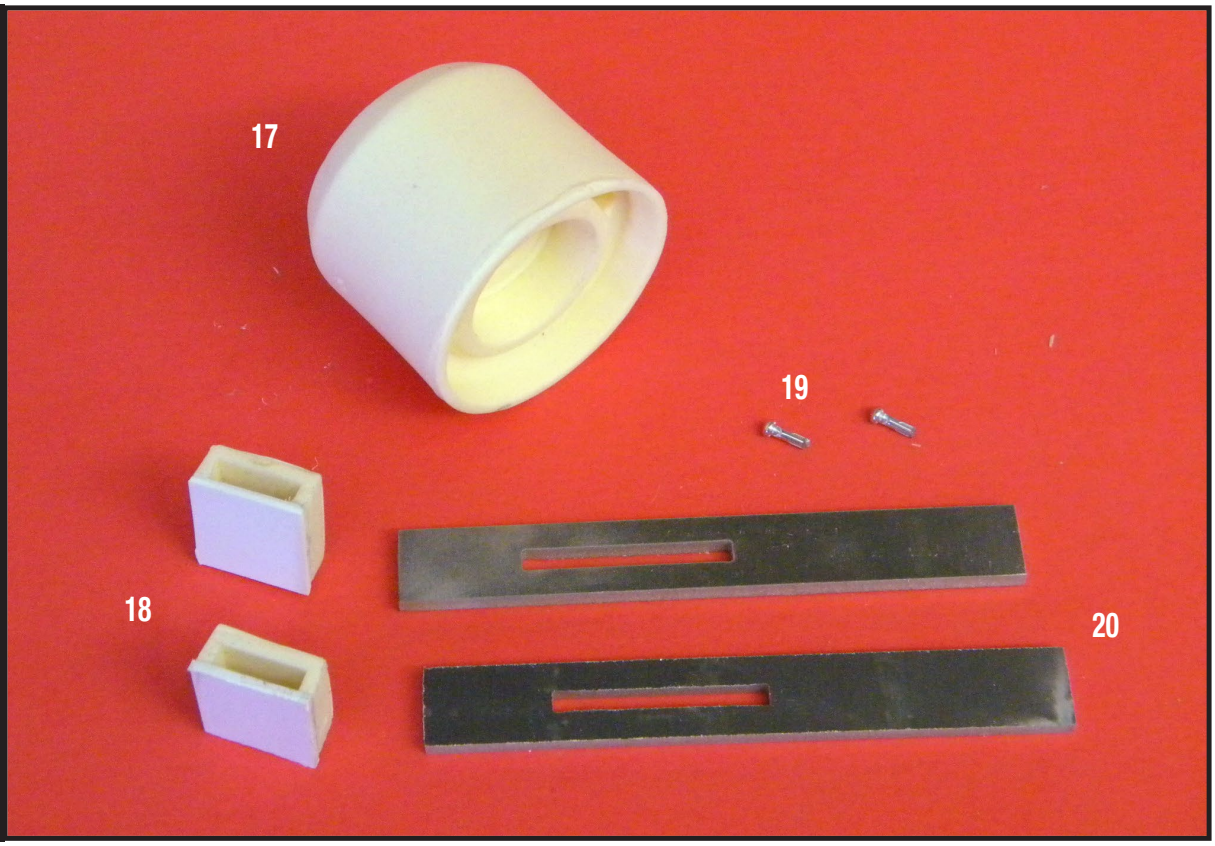


15. Barrel Half Lower
16. Barrel Half Upper

BARREL HALVES INSIDE

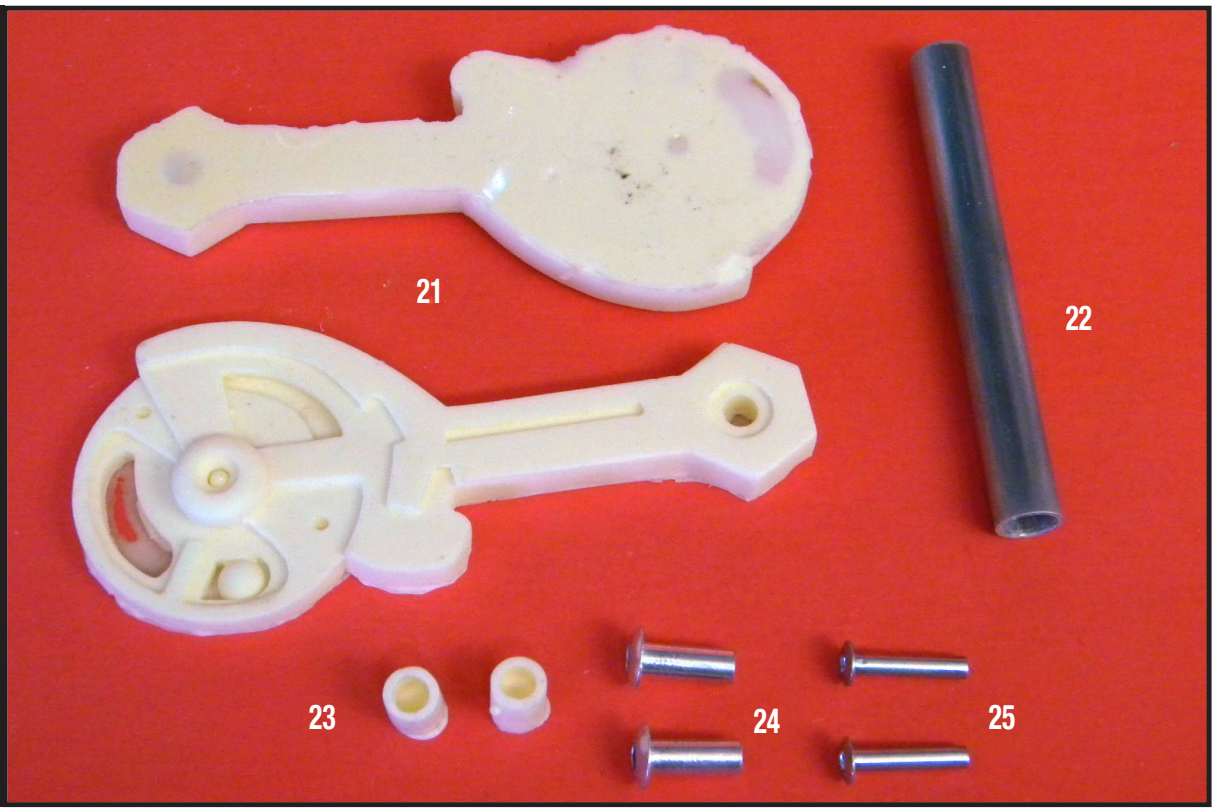


BREACH ASSEMBLY



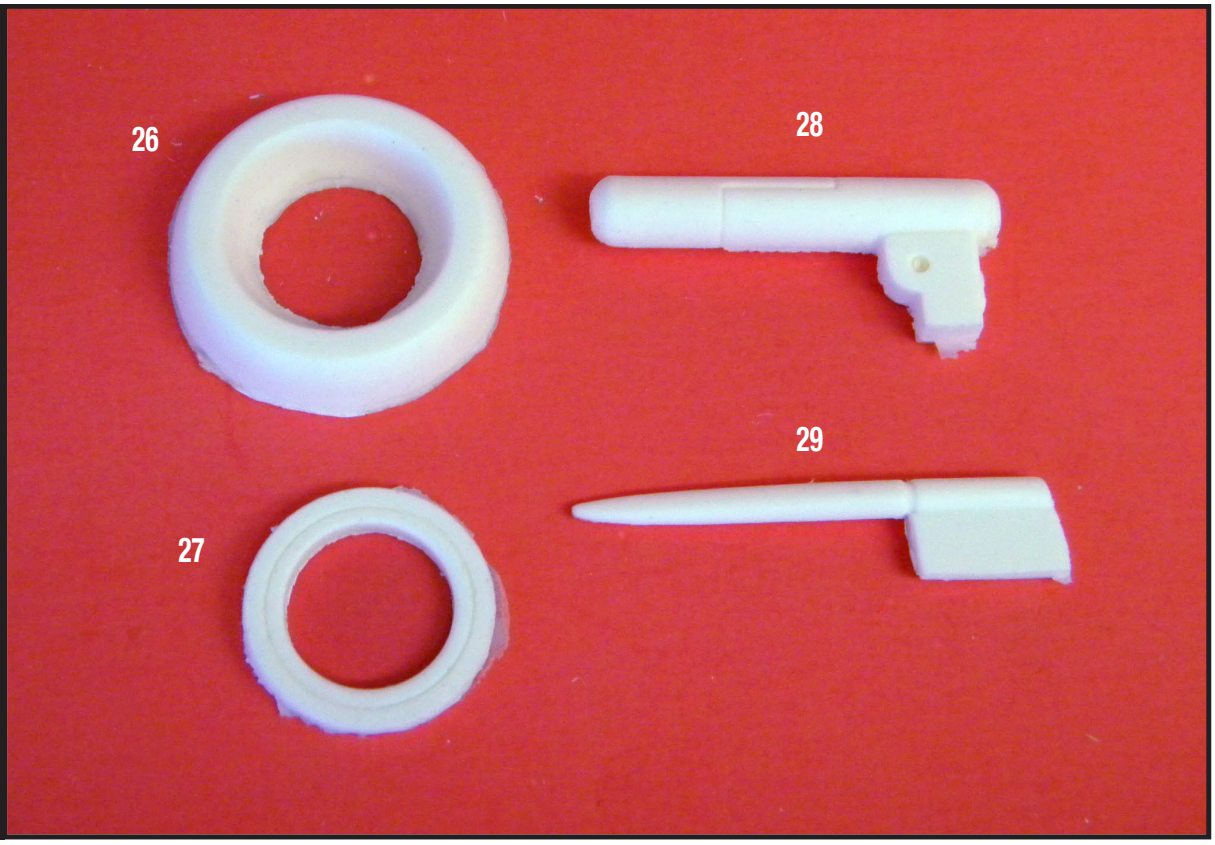
17. Breach Cap
18. Rail Guides
19. Rail Stops
20. Breach Rails

BREACH ARMS



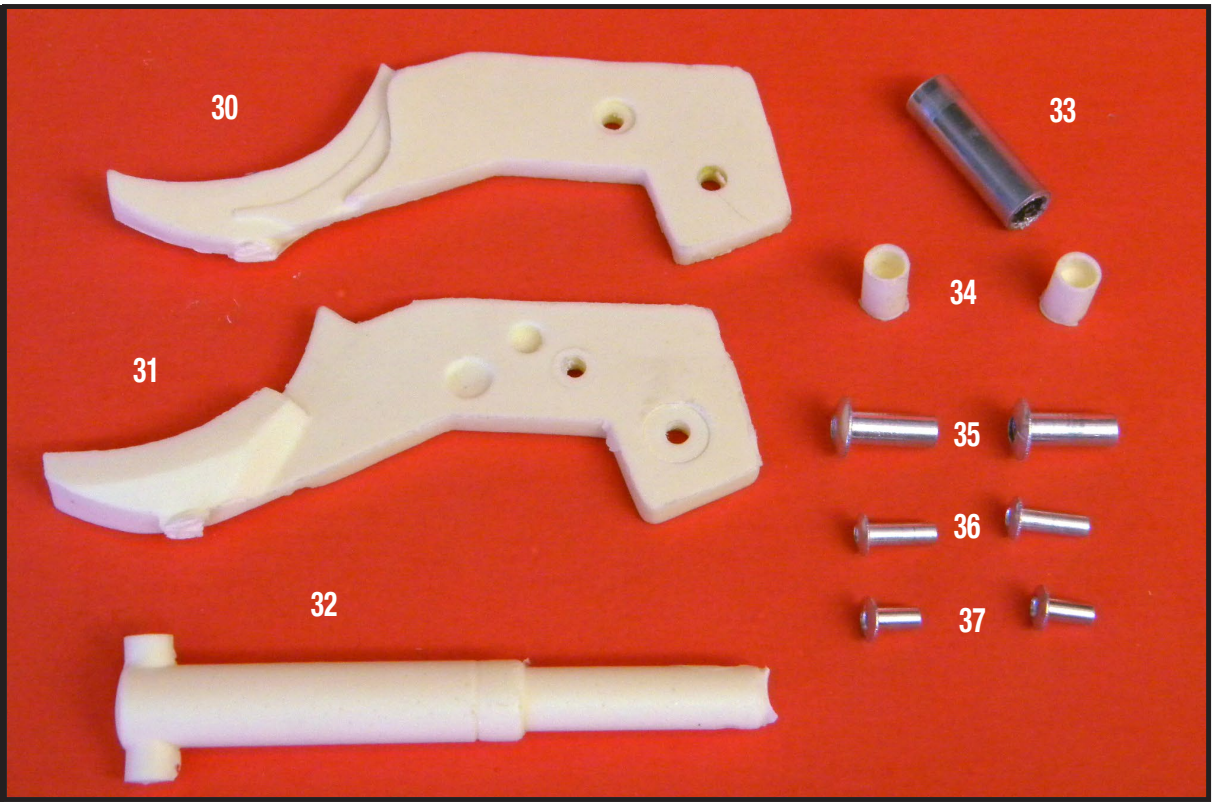
21. Breach Arms
22. Breach Arm Bar
23. Bar Adapters
24. Rivet 3/16” x 1/2”
25. Rivets 1/8” x 5/8”

BARREL RINGS / SIGHTS

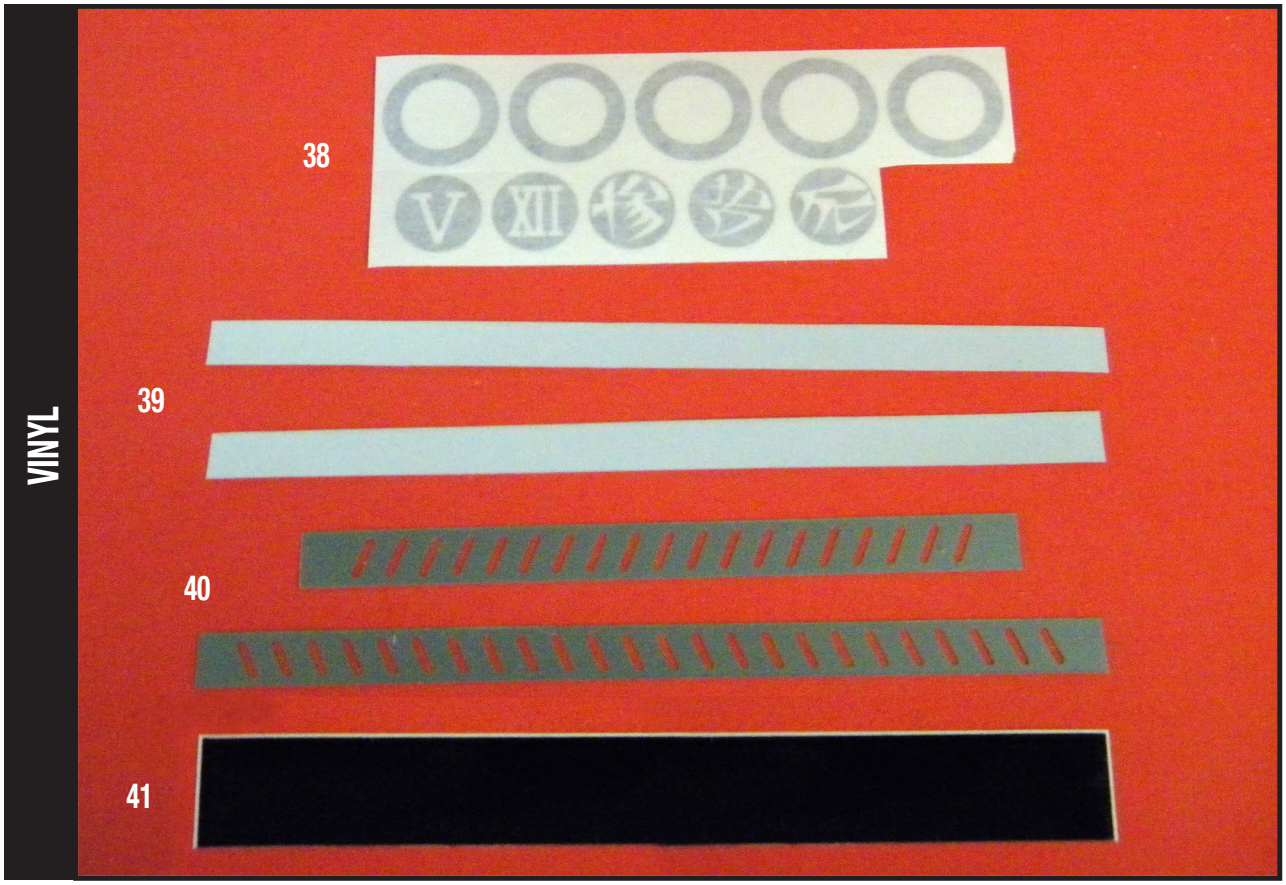


26. Muzzle Ring
27. Breach Ring Insert
28. Rear Sight
29. Front Sight

TRIGGER GUARD / PISTON ASSEMBLY

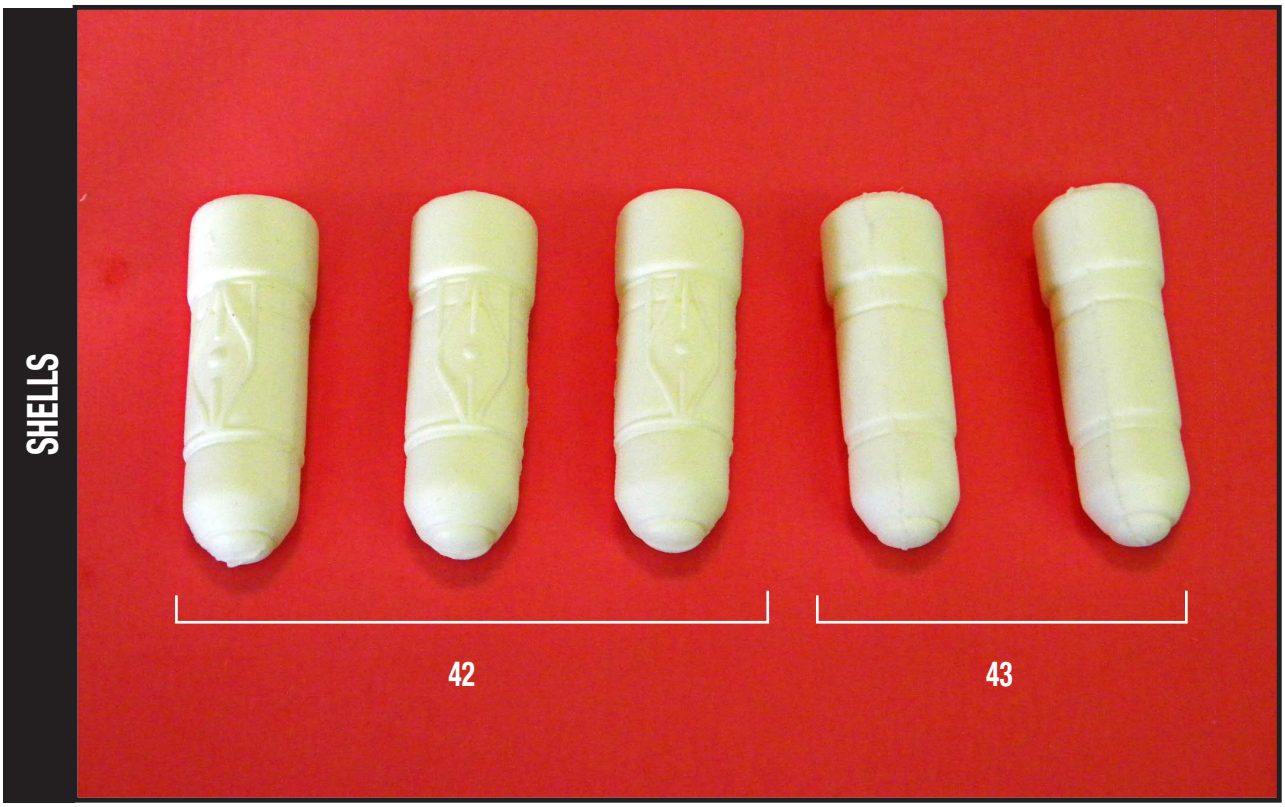


30. Trigger Guard L
31. Trigger Guard R
32. Piston
33. Cross Bar
34. Tube Adapters Small
35. Rivet 3/16" x 1/2"
36. Rivet 1/8" x 3/8"
37. Rivet 1/8" x 1/4"



38. Shell Masks
39. Reflective Strips
40. Silver vent strips
41. Black vinyl

Clear styrene strips (not shown)



42. Special Shells
43. Standard Shells

Pre-paint all brown pieces with Krylon Brown Boots. You'll have to re-paint after you've removed the seams but some areas will be difficult to reach so it's best to paint them early.

1. Trim off all pour spouts and excess plastic from the pieces. It's just easier to do this all at once. Although I usually don't use any mold release, it doesn't hurt to wash the pieces at well. Use warm water, dish soap and a tooth brush to get in all the nooks and crannies. Be sure you take precautions to keep small pieces from falling down the sink!

2. You're going to need to make some adjustments to get the **trigger (3)** to slide properly. First, you'll need to remove 1/32" from each side of the trigger cavity to give the trigger some room to slide. When I've assembled the kit, I used a router bit in my Dremel with the tile cutting attachment. It allows you to lower the bit to the height you need and remove a small amount of the surface. You'll also want to square up the corners, removing excess material. I imagine you can use chisel and files as well, although it will take longer.

3. To test if you've removed enough, insert the trigger, clamp the **grip halves (1, 2)** together, and see if the trigger moves freely. If you remove too much, the trigger will want to rattle from side to side—you don't want that!

STEPS 4-5 removed

6. Slide the supplied small **tube (5)** (3/32"" dia x 5/8" mm) over the rod and make sure it slides freely. Lay the trigger (with rod + tube) into the trigger cavity on one grip half and trace with a sharp pencil where the tube intersects the grip. Repeat for the other side. You'll need to remove this material from each side of the grip to make a trough for the tube to lie in. I used my makeshift Dremel router, but you can also use either a drill bit, or regular Dremel cutting bit.

7. I've had quite a bit of internal debate whether it's easier to paint the trigger now, or after the grip is sealed. I've done it both ways and really have no preference.

8. Slide the supplied **spring (4)** over the rod/tube and place the trigger assembly into the grip cavity. Position the tube completely in its trough, making sure that the spring is within the cavity so that it pushes the trigger forward. Tack the tube in place with a SMALL drop of CA glue or epoxy. IF YOU GLUE THE TUBE IN PLACE WITHOUT THE OTHER ITEMS OF THE TRIGGER ASSEMBLY, YOU'LL NEVER GET THE TRIGGER INSERTED, and you'll end up pulling the tube out again. Trust me, I speak from experience.

9. Use 2-part epoxy to glue the halves together. Keep any glue away from trigger cavity. Clamp and test to make sure the trigger still works.

10. Trim barrel halves so they fit snugly against one another. Although not reflected in the parts list, I have removed the "eye" from the barrel halves to make seam removal easier. They are now separate pieces which will be glued on later.

11. Paint the inside of the barrel halves flat black.

NOTE: If you don't want the breach to open, then skip to Step 30.

12. Paint the breach ring with primer and then fit it to the inside of breach opening. You'll have to carve away some material from the inside of the barrel halves for the ring to sit flat. Glue into the inside of the bottom barrel half.

13. For the inner barrel, you have to make a choice now. If you want the barrel to extend from the breach to the muzzle (so you can look down the barrel like a real gun), you'll need to measure the distance between the breach ring, and the very END of the lower barrel half—then add a 1/2" for safety. Cut the PVC to that length.

OR

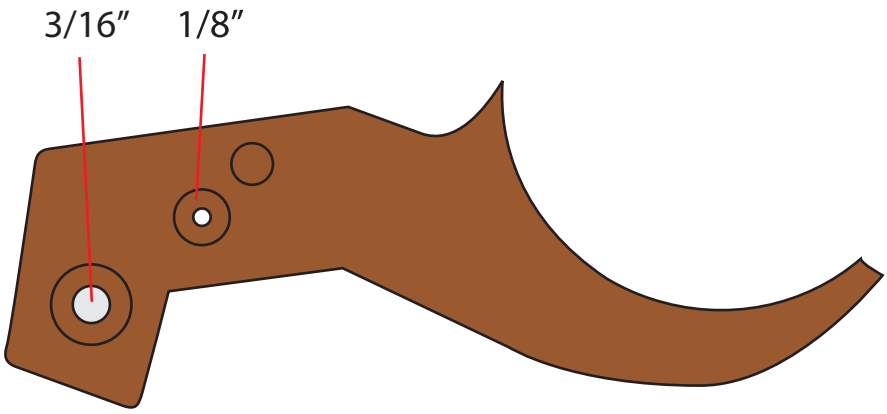
If you want to add a reflector behind the muzzle, so that it lights up under flash photography, there's no need to have a long internal barrel as no one will ever see it. Cut the PVC pipe to a length of 4.5".

15. You'll want to paint the inside of the barrels flat black. Airbrush is best but I got decent results with careful spray painting.

16. In either barrel method, you'll need to remove excess material from the inside of the barrel halves so the PVC pipe sits IN THE MIDDLE of each half. I used a Dremel sanding drum. Remove only what you need to make the pipe fit. If you remove too much, it will weaken the barrel.

17. Apply epoxy putty glue pipe in place. Use epoxy putty to strengthen the narrow point of barrel. Test fit the top barrel to make sure everything it still lined up and true.

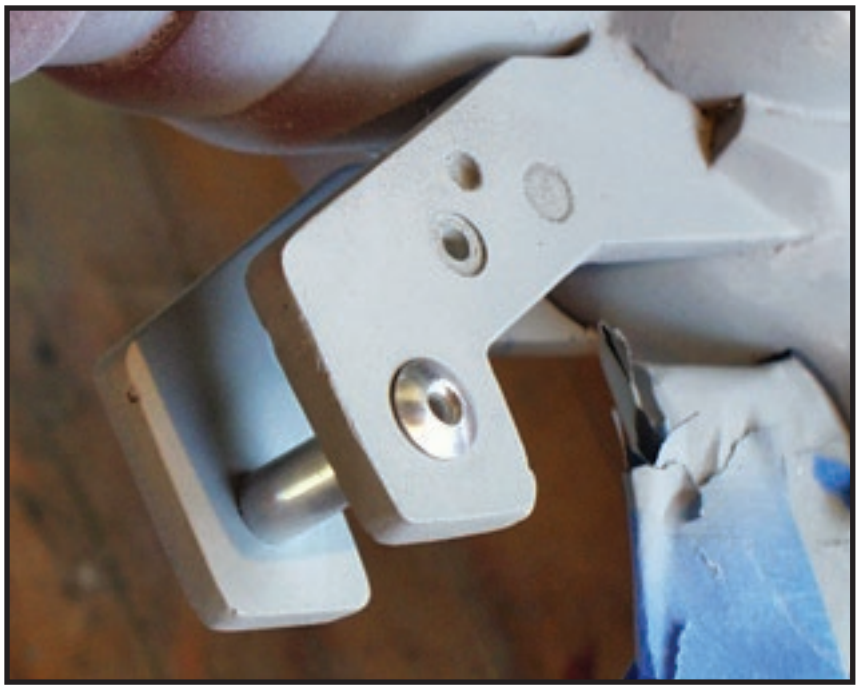
15. Drill out all the holes in the **trigger guards (30, 31)**.



16. Resin spacers (34) are already inserted into **trigger guard tube (33)**.

17. Connect trigger guards to tube with **3/16" rivets (35)**. DO NOT GLUE (yet)!

18. Attaching the **lower barrel (15)** to the pistol grip is a bit tricky. Connected guards and grip have to be glued together AT THE SAME TIME (sorry about that). Test fit until you feel comfortable with the process then glue. I recommend a 5-minute epoxy.

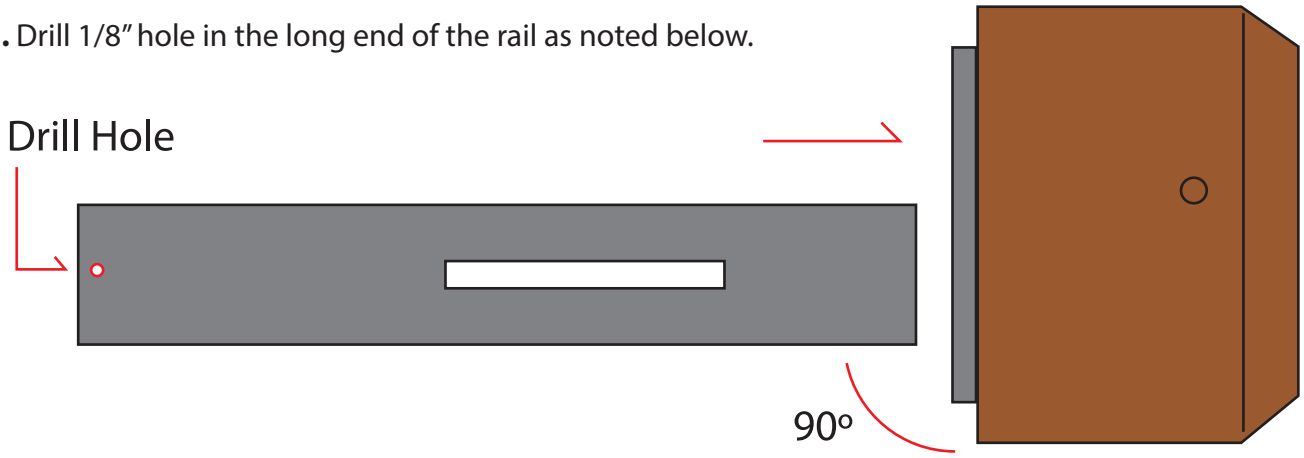


19. Putty any seams between these pieces.

20. Paint the inside of the **breach cap (17)** Matte Nickel.

21. File/sand top and bottom edges of the **Breach Rails (20)** to remove tooling marks—this will allow the breach to open more smoothly. If you have a buffing wheel, it doesn't hurt to shine up the rails now while you can (although this isn't necessary).

22. Drill 1/8" hole in the long end of the rail as noted below.



23. Test fit the rails in the end cap, inserting the short end. They should fit tightly. Once properly seated the rectangular holes will line up and the rails will sit perpendicular to the cap surface. Put a SMALL amount of epoxy in each of the cap's rail holes, insert the SHORT END of each rail, and then slide the guide over the end of the two rails. Double check to make sure the rails are sitting 90º. Let cure.

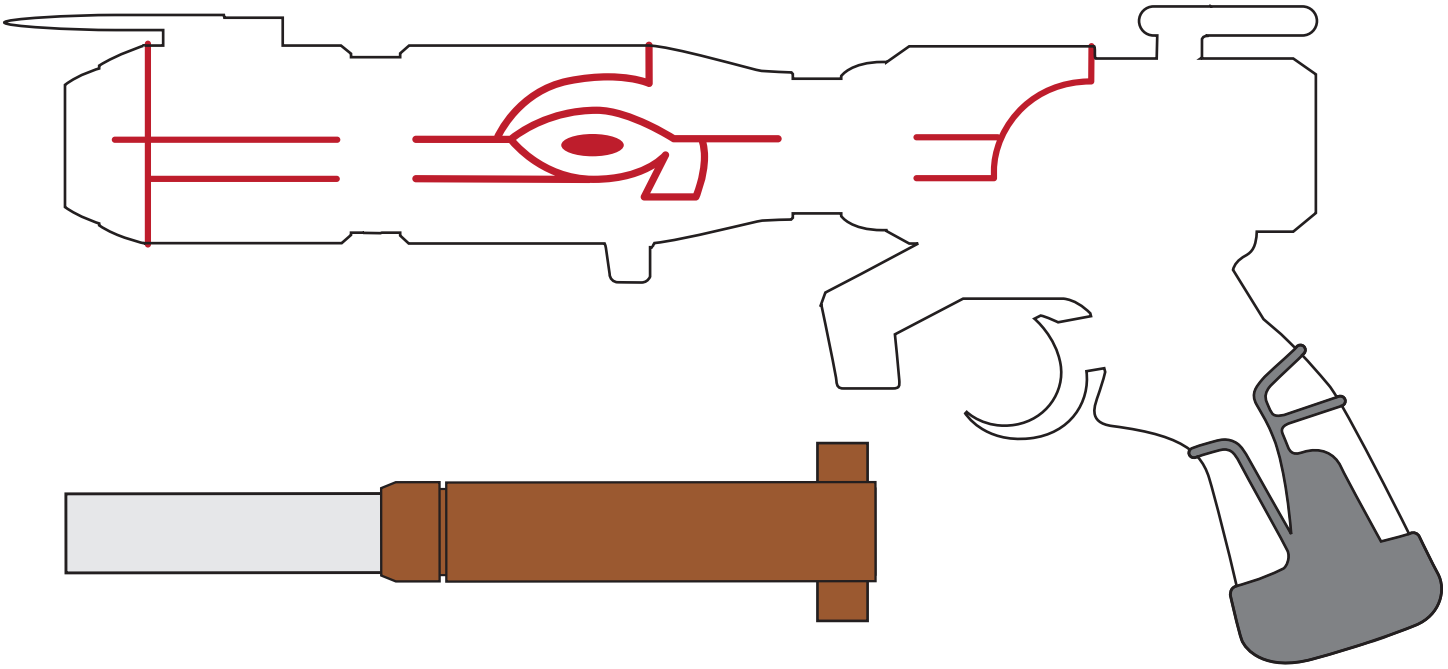
28. Insert the rails into their slots in the lower barrel and put the barrel top in place to test fit the cap closing. Remove any material from the inside of the barrel half so it slides freely.

29. While the rails are inserted, slide **Rail Guides (18)** onto each rail. Holding the guides in place against the end of the barrel, test the sliding cap. The hole in the end of the rail will eventually hold a restraining pin that keeps the rails from pulling out of the gun. With the pin hole at the edge of the rail guides, check to see that the rectangular hole has cleared the breach and that you have enough room to insert a shell. You can increase the range of the rail by making the notch deeper in each rail guide. Also check to make sure that the rails are running parallel to the barrel edge when the breach is closed. If everything checks out, use epoxy putty to lock the rail guides into position. Put barrel top in place, close the breach, and let the putty cure.

30. Now use some epoxy to seal up the barrel. Use rubber bands or tape to hold the barrel close while the glue cures. Putty up the seam. If you opted for the non-opening breach, glue the cap into place, keeping the "dot" on the left side of the cap, halfway up.

32. Place the "T" end of the **piston (32)** to line up with the holes above the bar on the trigger guard. Insert rivets to hold it in place WITHOUT glue. If the other end of the piston does not line up with the barrel brackets, try flipping it. Test fit short **1/8" rivets (37)** in each side. DO NOT GLUE RIVETS YET.

33. Remove all rivets. Mask off the trigger if you've already painted it. Paint whole gun with "Brown Boots". Let dry 24 hours.



34. Mask off gun to expose butt and grip piping. The 3M Automotive masking tape does a great job around the piping. Paint these areas in Matte Nickel. Let dry 24 hours.

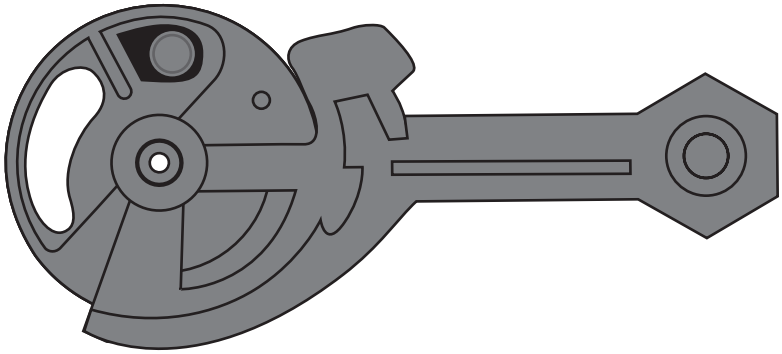
35. Mask off barrel to expose piping. Paint gloss red.

36. Mask the lower portion of piston and paint upper part Matte Nickel.

37. Paint **Breach Arms (21)** Matte Nickel. Use a small brush or tooth pick to paint black in this recessed area.

38. Drill 1/8" hole in center.

39. Drill 3/16" hole at end of arms.



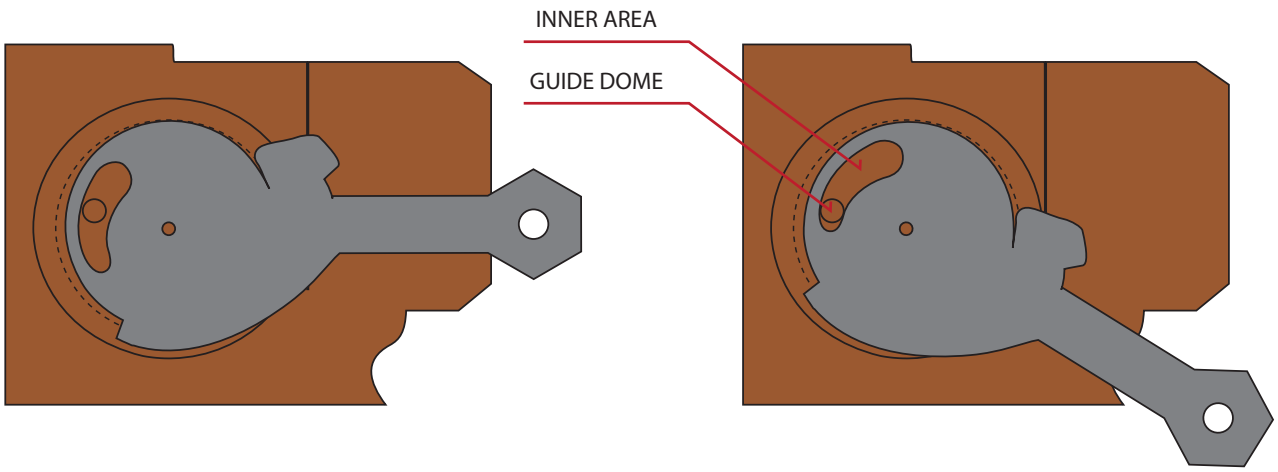
40. Large resin inserts (23) are already attached to **3/8" aluminum bar (22)**. Test fit **rivets (24)** through end of the arm, and into bar. Slide assembly over pivot junction. Line up round edge of arms with round edge of the junction, put a nail into the center hole, and test the rotation. Adjust arm location so that the arm moves freely, restrained only by the inset guide dome. Once it's positioned properly, mark hole with pencil or drill bit. Drill 1/8" hole for breach arm. This hole may or MAY NOT line up with the hole indicated in the cast. **The test fit is the final word!** Test, mark, and then drill the other side. Test assembly by inserting **1/8" rivets (25).**

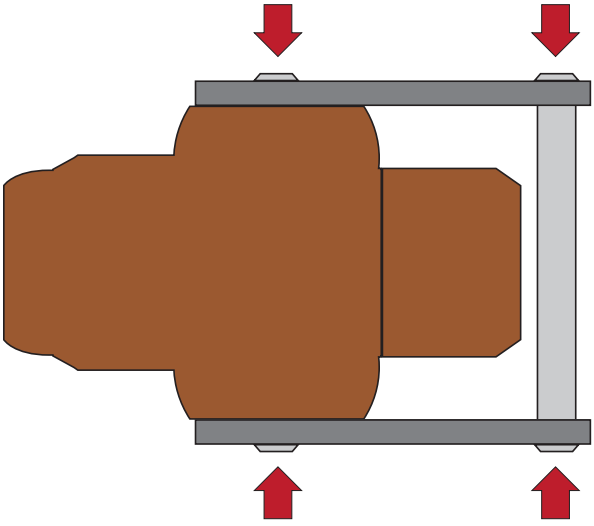
41. Position arm in the down position and mark the inner area around the guide dome. Raise the arm to the upper position and then mark the inner area. Remove the breach arms and paint the marked areas black. Paint the guide dome matte nickel.

42. Put small amount of glue into insert hole of aluminum breach arm bar. Insert rivet into the end of one of the breach arms and insert into the bar. Using a toothpick, apply a small amount of CA glue into the center hole of the Caster pivot junction. Wipe away any excess glue that gets onto the surface. Insert long 1/8" rivet through breach arm center hole, and then into hole the hole that's been glued. Hold tightly for 1 minute, and test rotation.

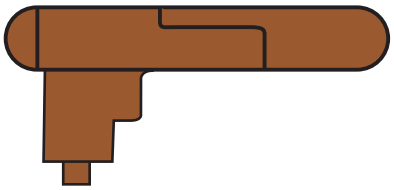
43. Add glue to the hole on other side of pivot junction and the other end of arm bar. Attach other breach arm, holding (at the arrows) both center hole rivets and arm bar rivets for 1 minute.

44. Glue piston and its rivets in place.





45. Test fit then glue **front sight (29)** in place. You may need to scrape some paint out of the hole since the front sight fits tightly.

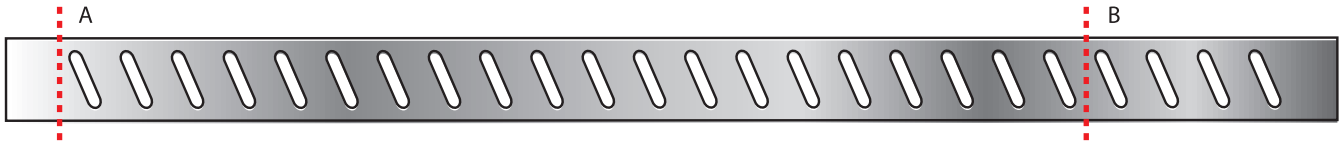


46. If you're not cosplaying with your Caster, you can just glue on the **rear sight (28)**. Just make sure it's lined up with the front sight. There should be a space of approximately 1/16" to the left of the sight base.

48. If you want the vent rings to look hollow, apply a **black vinyl strip (41)** to each ring on the barrel. Start the strip under the Caster in the center so the seam won't be noticed. Trim off any overlap. Skip to Step **50.**

49. If you want the vent rings to light up under flash photography, apply a **reflective vinyl strip (39)** to each ring on the barrel. Start the strip under the Caster in the center so the seam won't be noticed. Trim off any overlap. To add a matching light-up muzzle, see Step 59.

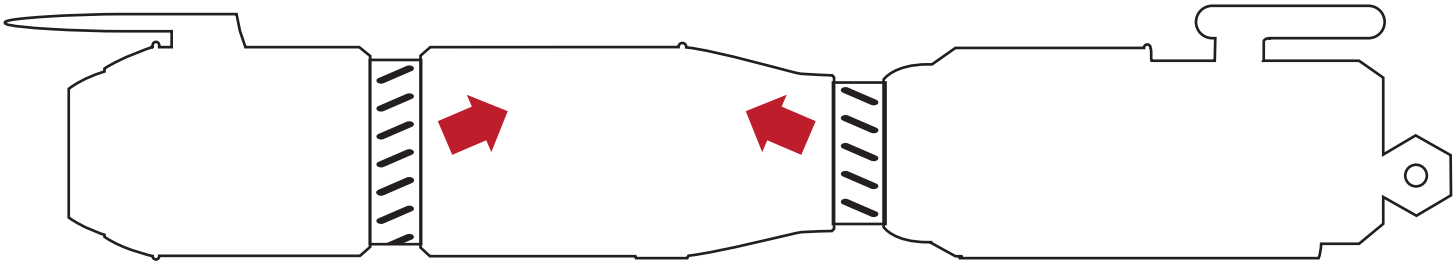
50. Peel the backing off the **metallic vinyl vent strips (40)** and apply them to the clear styrene strips. Trim styrene to edge of vinyl, if necessary.



51. Trim off the end of the vent strips approximately 1mm from the edge of a vent (A). Use a triangle to keep the cut perpendicular.

52. Place the trimmed end at the bottom of the Caster and loop the strip around the trench. Mark the overlap, remove the strip and trim (Approximately at B).

53. With the gun face to the left, position the vents to point in the direction shown. Use a small amount of CA glue to glue end A at the bottom and loop around the trench. Apply glue to end B and secure. Repeat for other trench.

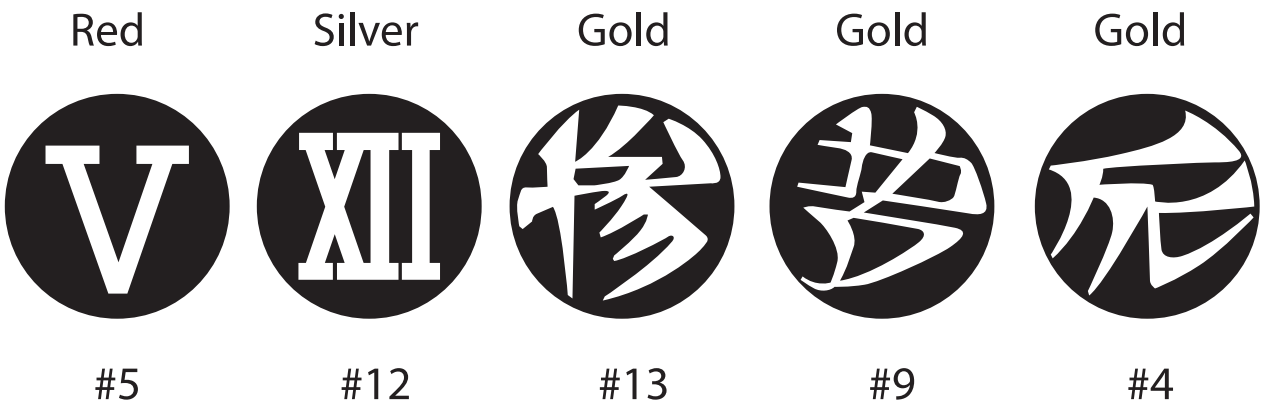


54. Paint the two **standard shells (43)** with a base coat of Duplicolor Acrylic Enamel Aluminum DA 1684. Let Dry 24 Hours. Paint one shell with a top coat of Duplicolor Metalcast Red MC200.

55. Paint all three **Special Shells (42)** with a coat of Rustoleum Metallic Gold. Let dry 24 hours. The eye design can be painted with a fine brush and a gloss red enamel model paint.

56. Apply the appropriate **vinyl mask (38)** to the base of each shell.

57. Apply a ring decal around each mask to cover the edges of the shells. Use cling wrap to cover the rest of the shell and stick the wrap to the ring to seal out any paint.



58. Spray black gloss or satin to make the markings. Remove the vinyl masks once the paint is dry.

59. Glue on **muzzle ring (26)** to front of gun making sure the inside of the ring matches the inside of the barrel tube.

If you've opted not to install a full barrel tube, you can add a reflector behind the muzzle. I've included a resin disc and a piece of the same reflective vinyl that you can use behind the vents. Insert the disc into the recessed area at the end of the barrel and glue the muzzle ring over it, making sure it's centered in the end of the barrel.

That's all there is to it. You are now the owner of a Caster Gun and obviously the envy of all your friends. Enjoy!