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#PRP1784

Star Trek: The Next Generation
First Season Medical Tricorder Head Unit
Prop Kit Assembly Manual



Roddenberry.com presents, for the first time ever, the **Medical Tricorder Head Unit** as used by Dr. Beverly Crusher and Dr. Katherine Pulaski that snaps onto the **Next Generation First Season Mark VI Tricorder Kit #1783** (tricorder kit available separately, contact www.rodtenberry.com for ordering information). This accessory to the standard tricorder comes with its own medical scanner kit, and both are designed for easy assembly and painting as non-functional static props.

Instructions for modifying the Medical Head and the scanner to make them functional units are not provided in this kit but can be accomplished with additional work.

PARTS LIST:

- Medical Head Body (resin casting)
- Bullet Catch (1)
- Bullet Catch Plug
- Bottom Door (laser-cut styrene)
- Bottom Door Frame (laser-cut styrene)
- Small styrene strip
- Green LED Display Plate (dyed green casting)
- Red LED rectangle (dyed red casting)
- Medical Scanner (resin-cast in three parts: scan head, mid-body, main body)
- Red LED (T-1 3/4 size)
- Gold-copper graphic tape square

TOOLS AND SUPPLIES NEEDED:

- Hobby knife and/or small round file
- Cyanoacrylate (CA) glue, and CA accelerator
- 5-minute epoxy
- Bondo plastic filler, and automotive or hobby spot putty
- Sandpaper (220 to 320-grit rough sanding, 400 to 600-grit finish sanding)
- Masking tape (blue low-tack type recommended)
- Scotch tape, for masking the green LED display casting
- Micro Mask or other brand masking liquid (available at hobby stores)
- Small paint brush

PAINTS LIST [SPRAY PAINTS UNLESS NOTED]:

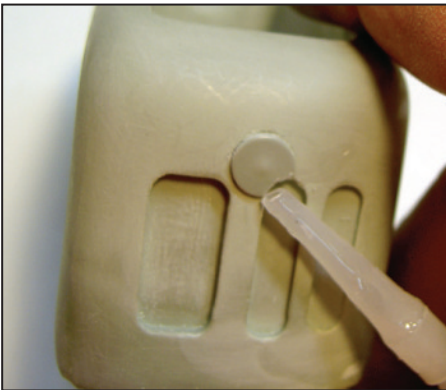
- Primer (sandable-type)
- Krylon Stone Gray #1605
- Krylon Smoke Gray #1608 (optional)
- Krylon Bright Silver, Dull Aluminum, or similar

Step 1: Start by washing all your resin parts with a chlorine-based cleaner, such as Ajax or Comet brands, and rinse with water to remove any traces of mold release which may interfere with the eventual paint finish.

Sand away all mold lines and sprues from the castings, also sand the edges of the styrene bottom door and door frame. Sand as much of the smooth surface as you can with fine grit sandpaper to help the paint stick better, and be careful you do not sand too much of the thin edges.



Step 2: Test fit the bullet catch; you may need to file a little material from inside the hole for the catch to slide in easily. Do not try to put any sort of a countersink on the inside surface hole; there is just enough room for the catch to go in and not stick out the outside.

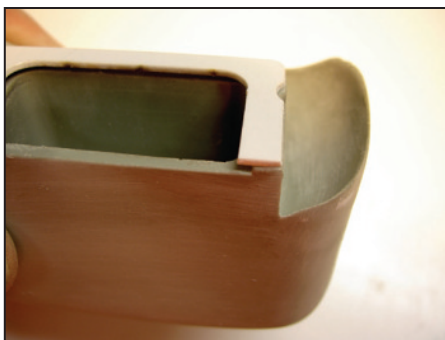


Step 3: Put a small drop of CA glue in the catch hole – do not get any glue inside the brass spring catch hole itself as you will ruin it if you do. When the glue is dry, put in the bullet catch plug (without pushing out the catch!), lining up the cutout with the side detail slot of the head unit and glue in place. Don't worry at this point if the plug sticks out of the hole. Bondo the plug; keeping the curve of the interior slot, let cure and sand until smooth.

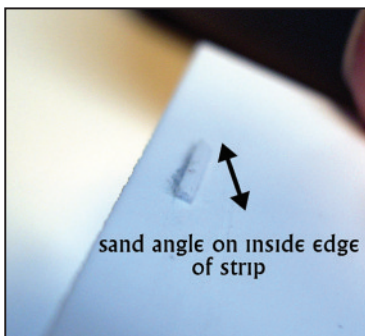
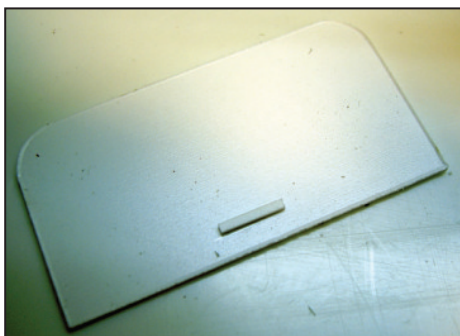


Step 4: Note that the two sides of the bottom extension have a couple of divots and slots molded in – these lock the medical head onto the Mark VI tricorder. They are not even with each other; this was a detail in all the original medical heads, and the door frame is likewise not symmetrical on both sides which matches the extension.





Step 5: Be sure you don't have any burrs sticking out of the edges of your door or frame. Glue the frame onto the extension, trying not to get glue in the slot where the door will slide – let it cure before you put the door in. Bondo or putty, and sand the outside surface seam all the way around up to the two ends where the door slot begins.

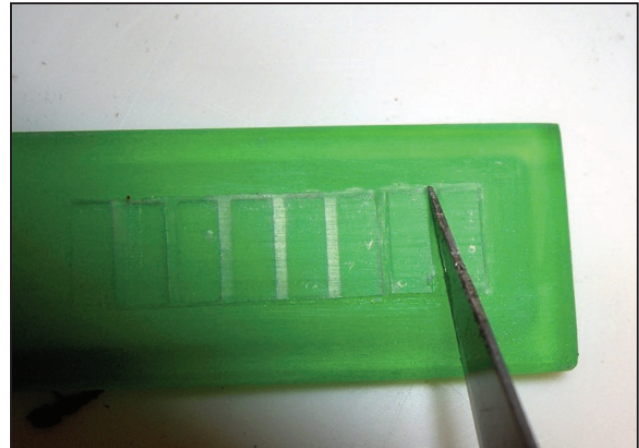


Step 6: The door needs to have the small styrene strip glued on (see photo on the left) so when the door is inserted it won't come back out on its own – you lift the door edge to slide it off. Glue the styrene strip on the door with CA about 1/8" from the long sharp-cornered edge. Bevel the inside of this strip to make the door easier to slide in.



Step 7: Cut or file in a small bevel in the two grooves; this will make it easier to insert the medical head into your Mark VI tricorder.





Step 8: Prepare the green LED display plate by masking the rectangular LED array with a piece of scotch tape, and cut away the excess tape around all the LEDs with your hobby knife without cutting into the main surface. Mask the bottom of the plate as well; this is both for gluing to the medical head and if you are making a working version and need to have lights shining out. Also mask the two round LEDs by applying a small dab of Micro Mask masking liquid to them; allow to dry before touching them or painting.

Step 9: Hanging the medical head with a wire hook isn't practical, as any hole you drill for your wire will likely come out an outside surface; so when painting this prop, start with the bottom first, let it dry, and then turn it over and spray the rest of it. You should also have the door in place; if you paint with the door separate from the body, the paint buildup will likely be too thick for the door to slide in as easily.

Start to paint the medical head and the green display plate by spraying a first coat of primer. Let dry, and check for defects in the surface you may not have gotten earlier – use spot putty to fill in any objectionable places, sand and primer again.

Step 10: When you have a good surface, spray a coat of Krylon Stone Gray #1605 – this is the successor to Krylon Dove Gray, which is what the original prop was painted. Again let dry, sand with 600-grit sandpaper, spray a final finish coat of Stone Gray, and set it aside for a few hours or overnight.

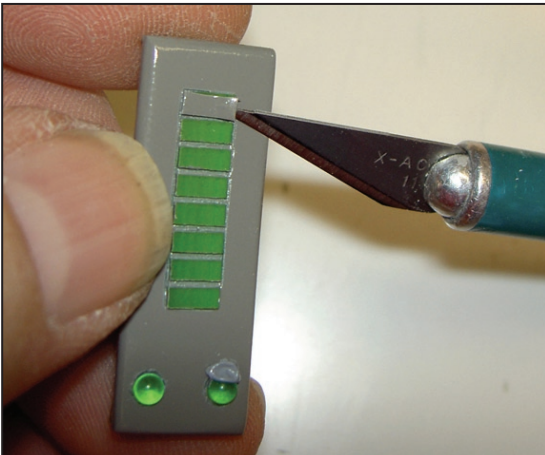
original prop on right,
side insets may be left alone or
painted a contrasting color



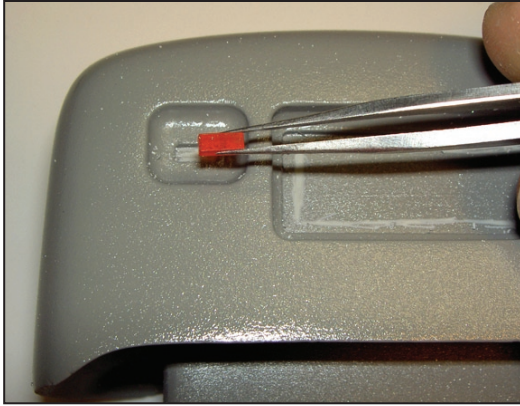
Step 11: The side inset slots may be left alone, or an alternative finishing touch is to paint these side inset slots a contrasting gray color. When you think the paint can survive being taped, apply masking tape to the head unit so the side slot details are exposed, and then spray on some Krylon Smoke Gray #1608. The top insets (where all the LEDs go) are left alone; do not paint the contrasting color. Both paint schemes were used on *Next Generation* and are equally accurate.



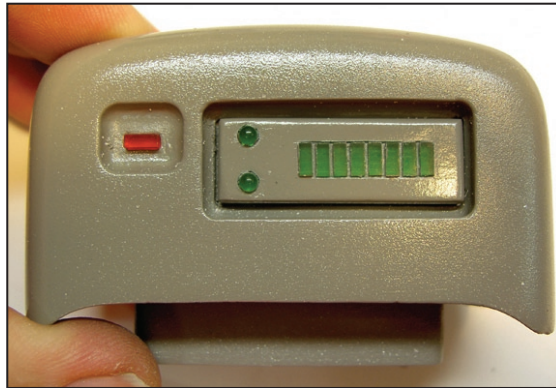
Step 12: Remove the masking tape from the medical head if you painted the contrast color -- leave it on the green display plate. The final touch for the main finish is done by lightly misting some silver or aluminum paint over the entire surface of both main unit and the painted green display; you are after a silver speckled finish over the gray that is very subtle and not obvious to the first glance, so be sure you hold your can far away and wave a light silver fog on the parts.



Step 13: When the paint is all cured, remove any remaining masking tape from your parts.



Step 14: Glue the small cast-resin red LED rectangle onto the medical head in the slot on the left side. 5-minute epoxy may be used if you want the time to properly set this part in place before the glue cures.



Step 15: Place the green LED display plate as shown, with the two round LEDs to the left side. If desired, you may put on a small piece of aluminum tape or ordinary aluminum foil on the bottom side of the display before gluing, it will help in making the display appear to “light up.”

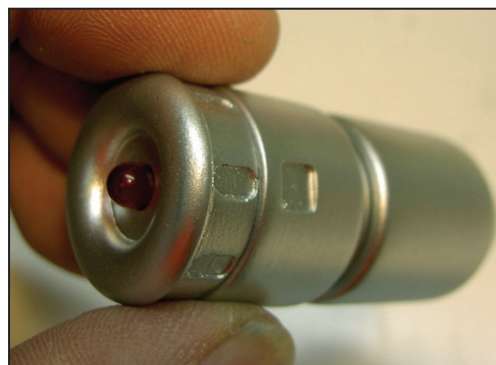


Step 16: Prepare your medical scanner in the same way as the head unit by sanding the mold lines and prepping the surface, filling holes with bondo if needed. Try your parts out by screwing the two body parts together and putting the scan head cap on.

The painting and detailing for the scanner is very simple; the first and second season scanners only had one working LED in it, and the very first one did not blink on and off on its own like later ones did; any blinking was done by the actor pushing the button on and off. Separate your parts, mask the threads if desired, and primer and putty/sand/primer until it looks good. Spray the scanner with Krylon Bright Silver or Dull Aluminum.



Step 17: After the paint is dry, glue the red LED to the scan head cap and the cap to the mid-body -- lining up one of the oval detail slots with the activation button square detail. Affix the pre-cut copper vinyl square to the square depression in the mid-body.



Step 18: Affix the pre-cut copper vinyl square to the square depression in the mid-body. Screw the two scanner halves together, and the medical scanner is finished; there is no other simulated LED paint detailing such as what would have been done with later scanner versions.



Step 19: Fit the scanner in its pocket with the tapered butt end towards the bullet catch. If the scanner fits too loose on the medical head, you may need to unscrew the scanner a little to tighten up on the fit. Don't overdo it; it won't need much spring-action to keep the scanner in, and you want to be able to remove the scanner easily.



Step 20: The medical head is inserted straight down into the First Season Mark VI Tricorder's scanner pocket with both cover doors in place. The two bullet catches should engage into the holes of the medical head, and it is removed the same way, straight up.



Congratulations, your First Season Medical Tricorder Head Unit is completed!

**The Roddenberry.com First Season Mark VI Tricorder Kit #1783 is available separately.
Contact www.rodnenberry.com for ordering information.**

Exercise caution if you will be wearing this prop with a costume or otherwise playing with it -- while the two bullet catches in the tricorder will hold the medical head in place under ordinary circumstances, violent or sudden movements may cause the head to dislodge and fall off from the tricorder.

This is a much heavier prop than those tricorders used later in the run of The Next Generation, and stunt units made for abuse were glued and/or screwed together so they wouldn't come apart, and most of those were made of rubber or wood.



IMPORTANT NOTES:

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