



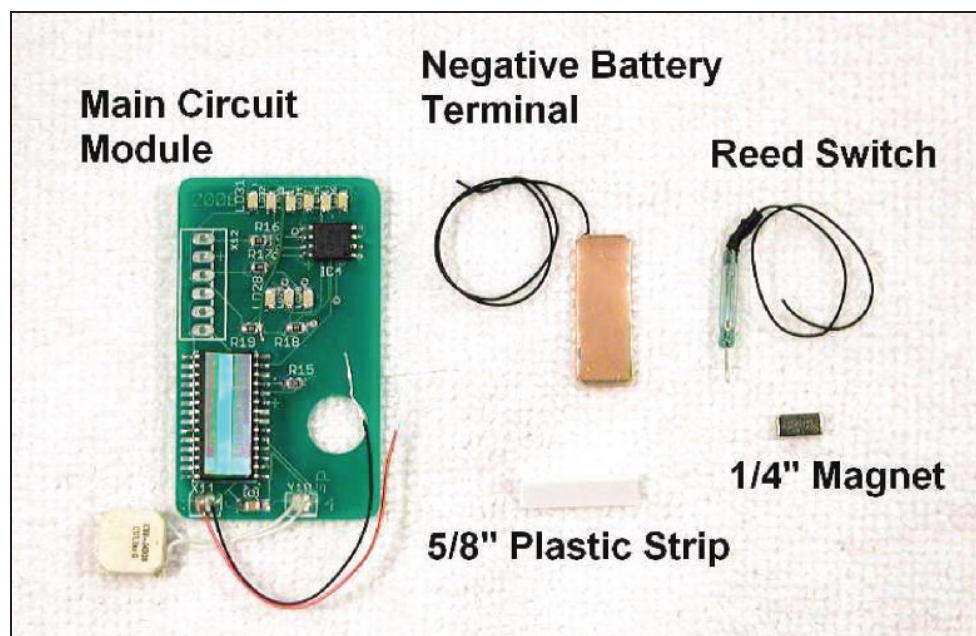
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#PRP1765E

Star Trek: Enterprise Communicator **Electronic Upgrade Manual**



- **WARNING:** The small magnet used in this kit could interfere with the operation of pacemakers, hearing aids, etc. Please use caution when handling.
- This electronic upgrade requires some prop building and soldering experience.
- Please read this manual completely and familiarize yourself with these electronics before attempting to install this upgrade kit.
- This upgrade may require cutting and/or attaching wires with solder.
- Do not attempt to modify the electronic circuits in any way.
- This manual is only intended as a guide for the installation of the electronics. Please use the Enterprise Communicator prop kit manual for prop assembly.
- Requires 2 standard CR2016 coin batteries (6V).



TOOLS REQUIRED:

- Dremel tool (a dremel flex arm attachment is very helpful)
- Various modeling files
- Hobby knife
- Soldering iron and rosin core solder
- Scissors and wire cutter/stripper
- Hot glue gun and glue

EXAMINE ALL PARTS AND READ THIS MANUAL COMPLETELY BEFORE BEGINNING ANY WORK:

These instructions have been written so that when followed correctly, your electronics upgrade will go smoothly and the communicator will look and sound just like the prop on the show upon completion.

The wires are color coded in order to minimize any confusion.

Always match up wire colors (i.e. black/black, red/red, etc.) unless otherwise stated.

Begin by taking the electronics out of the package and lay them out similar to the picture above.

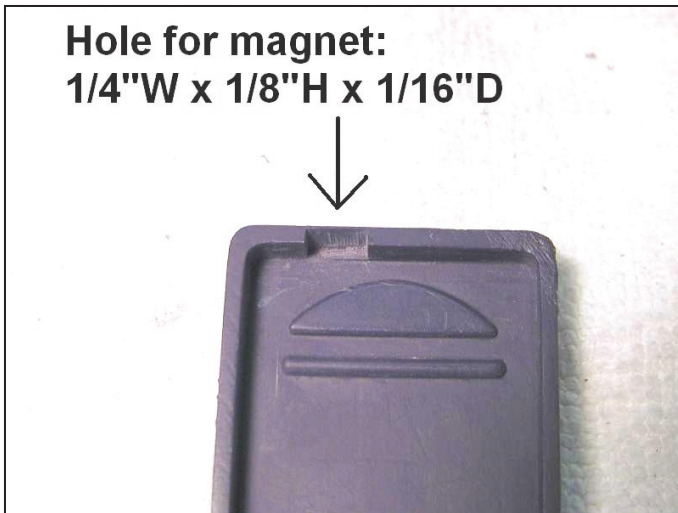
To start with, it is best and easiest to prepare for installing the electronics by drilling, cutting, or filling any required holes BEFORE doing anything else. That way you will be familiar with a plan, and also each installation step can be done without having to stop and drill or cut at those points during the build up.

The following steps and pages will go into more detail for electronics installation.

Use the prop building instructions as the “main” source for prop assembly, in conjunction with steps from these manual pages.

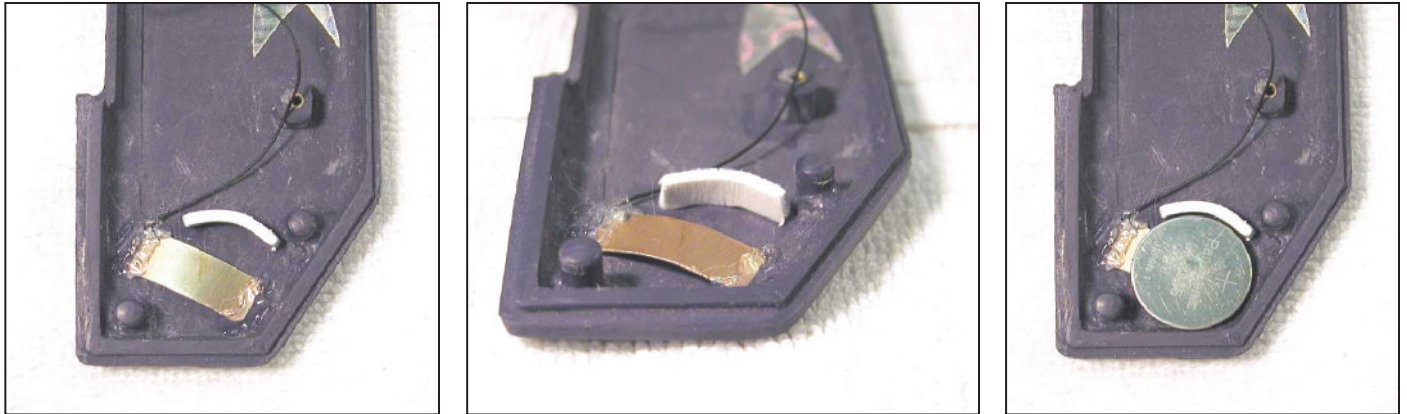


MAGNET INSTALLATION:



Step 1: The reed switch used for powering the communicator is activated by the small 1/4" neodymium magnet. Therefore, the magnet needs to be buried into the top inside edge of the grid flap. Using a small 1/16" dremel bit, carefully drill out a rectangle hole on the top inside edge of the grid flap, being careful not to cut through the outside edge. The hole should be approximately 1/4" from the left inside edge. The magnet dimensions are 1/4" wide X 1/8" high X 1/16" deep. However, you will need to make the hole slightly larger than these dimensions so it will allow you to glue the magnet into place and fill in the gaps with epoxy or body putty before painting. When properly installed and painted, the magnet will be completely concealed in the flap.

BATTERY TERMINAL:



Step 2: Due to the extremely thin cavity inside this prop, the use of conventional battery holders is not possible. Therefore, a custom-made battery compartment is substituted. The copper terminal will be Negative (-), while the aluminum center plate will be the Positive (+) conductor.

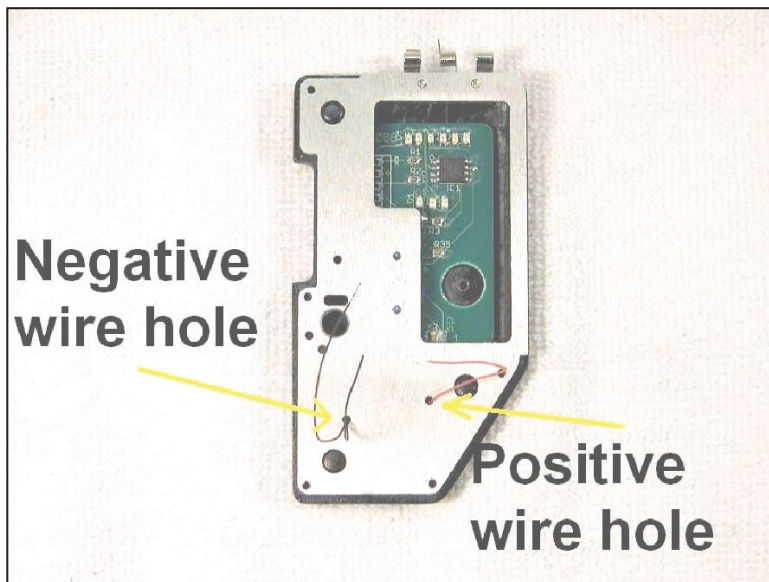
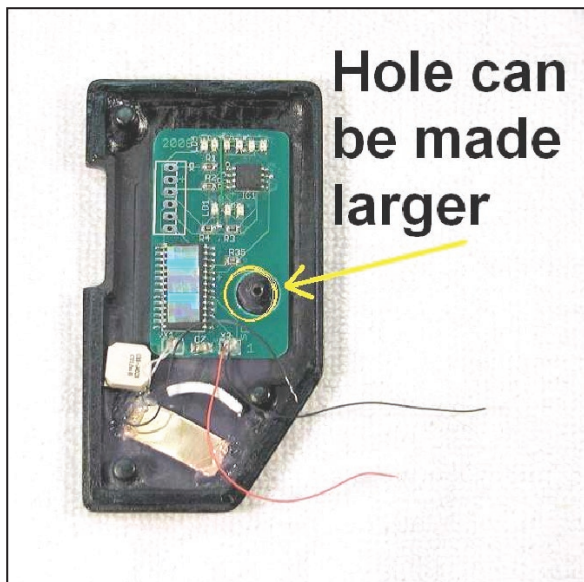
You will need to have your (2) CR2016 batteries for this step.

Form a small curvature in the negative battery terminal by carefully bending the copper. Then form a small curvature in the 5/8" plastic strip, using a battery as your guide for the proper radius of the curve.

Using hot glue, properly position and glue the bent terminal and plastic strip firmly into place as shown in the photos on the left and middle, with the bend in the terminal being centered under the battery when installed (photo on the right).

The batteries should rest one on top of the other - Positive (+) facing up and Negative (-) facing down on the terminal. They should be high enough in position that they stick out slightly higher than the surrounding edge of the communicator body. This will allow for the installed aluminum center plate to hold the batteries into place while being in contact with the Positive (+) end of the upper battery for completion of the electrical current.

MAIN CIRCUIT MODULE PLACEMENT:



Step 3: Refer to the prop kit assembly instructions for the graphics installation, and line up the lights on the module with the graphics.

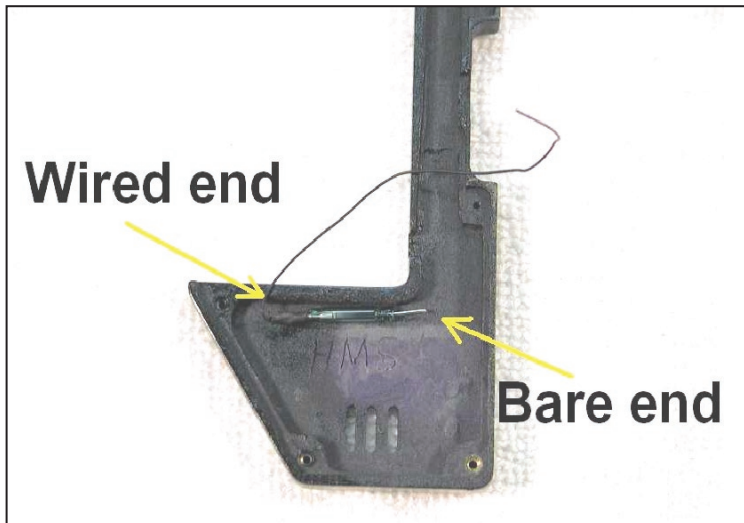
If necessary, you can expand the hole on the module for the purpose of proper alignment/location with the graphics. Expanding the mounting hole in the module can be accomplished using a round file or your dremel. Just be certain you do NOT cut into any of the printed circuit lines on the board.

Then tack the module into place inside the main body as shown in the photo on the left using a minimum amount of hot glue on the edges. (Be sure the small speaker is placed so that the aluminum center plate will lie flat onto the posts of the main body).

Do NOT glue the speaker!

Thread the negative and positive wires through the holes shown in the photo on the right. Then test the fit of everything by placing the center plate onto the main body positioning posts.

REED SWITCH PLACEMENT:



Step 4: The reed switch should be located under the top L-shaped body panel, directly under the straight edge with the wired end of the reed towards the outside edge as shown in the picture. Solder this wire to the negative battery terminal wire.

The negative wire on the main circuit module should now be soldered to the bare end of the reed switch shown in picture. Once all wires are connected, use a small amount of hot glue and attach the reed switch to the body.

If the reed switch does not function properly when assembled, you can move it back and forth by re-heating the glue in order to find the “sweet spot” on the reed for optimum performance with the magnet.

Your electronics are now installed, and you should follow the prop kit assembly instructions to complete the build up of your prop.

Once completed with the batteries installed, the prop will light up and the chirp sounds will activate when the grid flap is flipped open, just like in the TV show. Enjoy!!