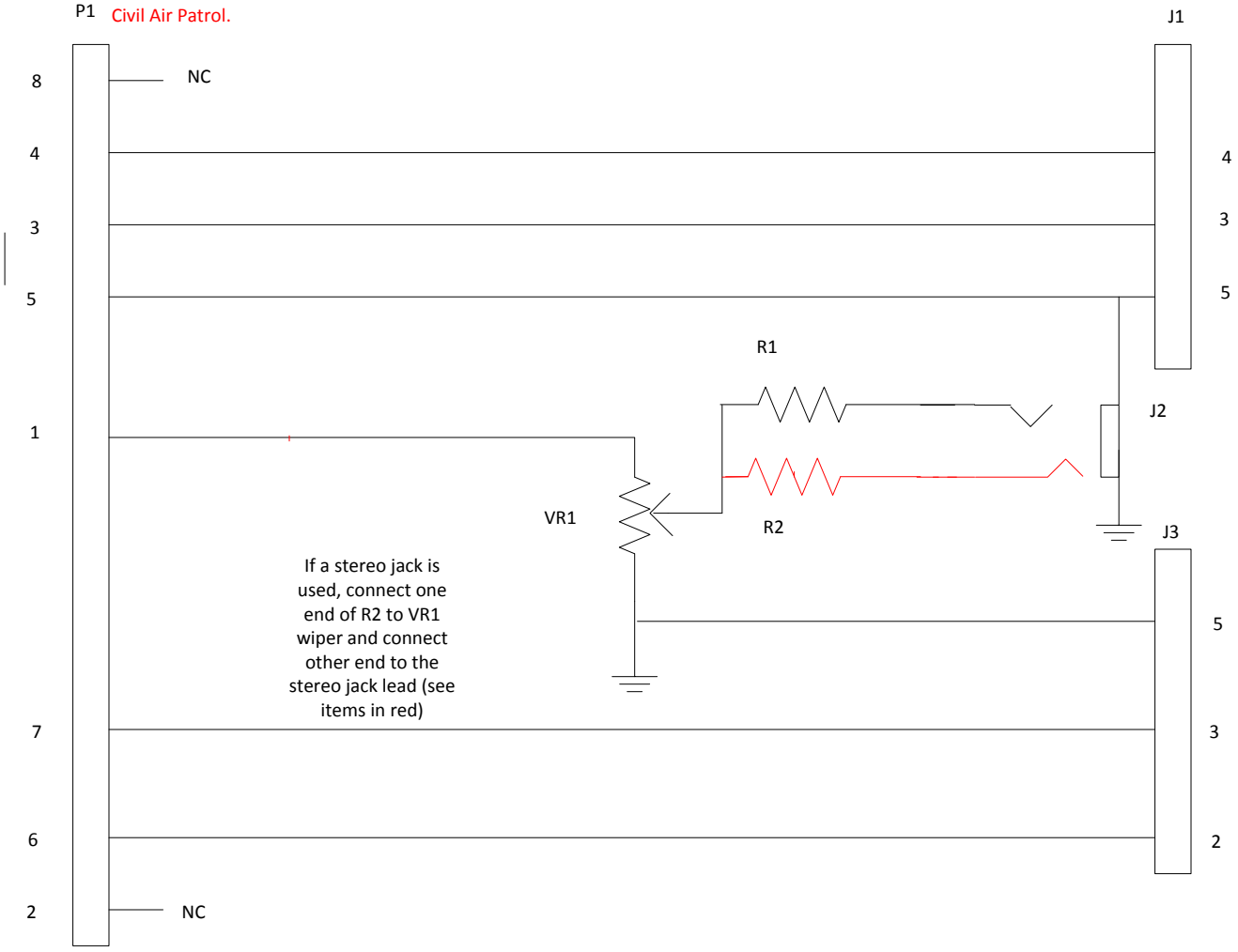
Parts List – Suggested containers and parts. Substitutions are permitted, but items shown in list work well for members who are not well experienced in construction projects.

J1 – RJ-45 jack (Home Depot 660559009529 $2.28, Cover Plate 078477559284 $1.48)
J2 –1 / 4" or 3.5 mm jack (Radio Shack 2 pk 274-255 $4.19)
J3 – DB-9 male chassis mount jack (Radio Shack 276-1538 $2.99)
R1, R2 – 150 ohm 1 / 2 w resistor (Radio Shack 271-1109 $1.49 ea)
VR1 – 1K ohm 1/4 watt audio taper potentiometer (MCM Electronics 28-10810 $1.19). Knob (Radio Shack 274-407 2 pk $2.99)
Wiremold duplex box – Home Depot 786776070521 $4.97
P1 – T568B Cat 5 ethernet cable male connector on one end ~ 1 ft long. Stranded conductor cable is preferred.

NOTE: Part numbers and names of sellers are for reference purposes only to assist in locating the electronic components used in this interface; and do not constitute any endorsements by Civil Air Patrol.



P1 – Cable with RJ 45 Plug to Micom Microphone Jack

8 – SW A+	Not used (Brown)
7 – RXD	Serial Data to Radio (Brown/White)
6 – TXD	Serial Data from Radio (Green)
5 – Gnd	Ground (Blue/White)
4 – Mic	Microphone to Radio (600 Ohms) (Blue)
3 – PTT	Push -to-Talk (Green/White)
2 – NC	Not used (not connected) (Orange)
1 – RX Audio	Receiver Audio (Headset – 300 Ohms 300mVRMS fixed level, unsquelched (Orange/White)

This is opposite from the table in Micom manual. When using an Ethernet cable, use the pin numbers in the diagram. The RJ-45 jack matches the Ethernet cable.

Construction tips

It will be simpler to split the individual wires out of P1 and go to the various jacks. Terminal strips can be used if desired.

Looking at the open end of P1 (where the wire goes in) with the tab down, the pins are numbered left to right 1 through 8.

Fold over unused leads (2 and 8), put heat shrink over each loose end and apply heat.

When running Ground (Pin 5 Blue/white), leave about five inches after punching the wire down to the RJ-45 jack and run the loose end to the speaker jack ground, J3 pin 5 and VR1 ground terminal.