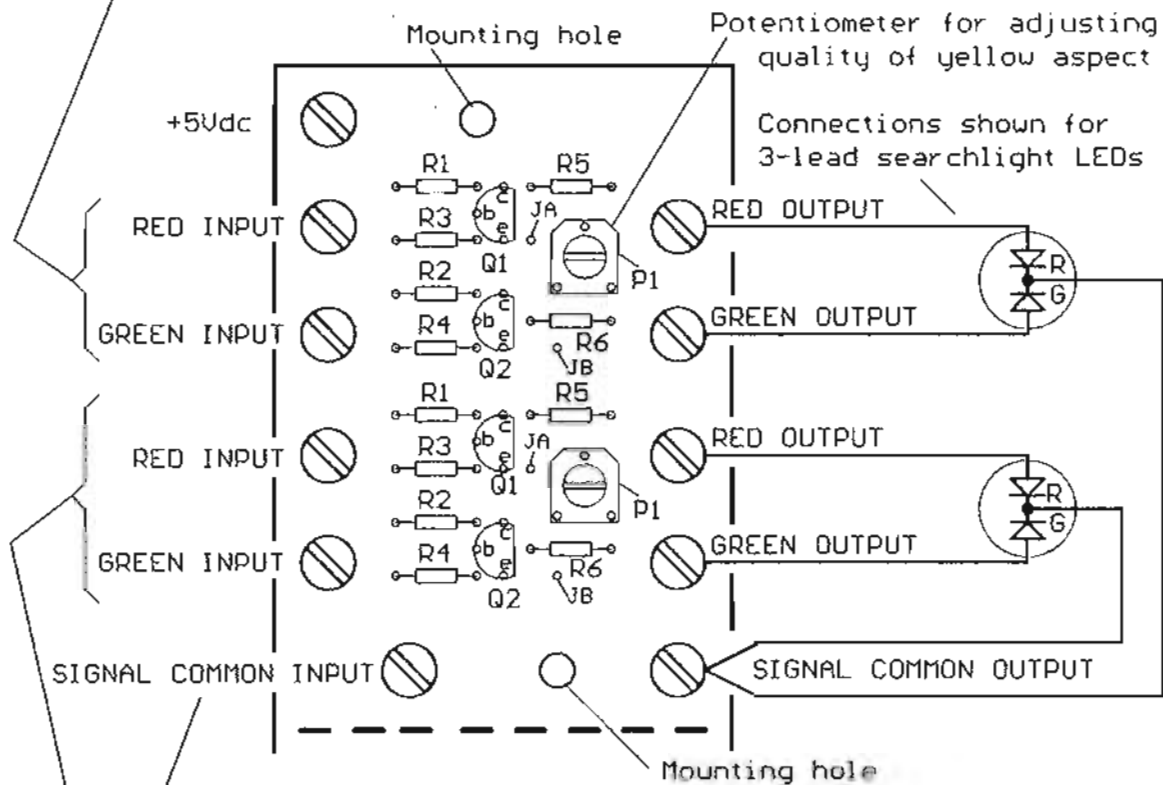


Connect RSSD inputs directly to C/MRI output lines configured for standard current sinking then:

- Grounding input terminal activates LED color indicated
- Grounding both terminals activates yellow aspect
- Both inputs open circuited corresponding LED is dark



Note: Only half of board shown
(other half is identical)

Connect RSSD signal common input to logic (signal) ground

Circuit repeated 4 times on board

(same component symbols repeated per circuit)

assembled-and-tested cards from EASEE Interfaces. Four circuits, each controlling a signal LED can be built on each card, and because all are identical, I've repeated the parts nomenclature from circuit to circuit. The parts list quantities are for one circuit. Thus to built up a complete card you need to multiply all the quantities shown in Table RSD-1 by 4 plus add 6 extra screws and nuts for the card's power and signal common connections.

Table RSD-1. RSSD Card Parts List (in recommended order of assembly)

Qty.	Symbol	Description
4	-	4-40 x 1/4" pan-head machine screws (Digi-Key H142)
4	-	4-40 hex nuts (Digi-Key H216)
2	R1, R2	4.7K Ω resistors [yellow-violet-red]
2	R3, R4	470 Ω resistors [yellow-violet-brown]
1	R5	75 Ω resistor [violet-green-black]
1	R6	150 Ω resistor [brown-green-brown]
1	P1	500 Ω potentiometer (Digi-Key 3306F501)
2	Q1, Q2	2N4403 PNP small signal transistors (Jameco 38421)

Author's recommendations for suppliers given in parentheses above with part numbers where applicable. Equivalent parts may be substituted. Resistors are 1/4W, 5 percent and color codes are given in brackets.

The RSSD assembly steps are as follows:

Board orientation. To help avoid errors during assembly, make certain that you orient the board as shown in Fig. RSD-2. All parts are installed from the top, i.e. the component side of the board and all soldering is accomplished on the bottom or the trace side of the board. It's important to note that the jumper holes, labeled JA and JB in Fig. RSD-2, are not used when assembling the card for use with 3-lead LEDs to be driven by C/MRI outputs configured for standard current sinking.

I'll cover this standard case first, and then for those interested I'll explain how the assembly sequence is altered for the special cases when driving 3-lead LEDs from C/MRI outputs configured for alternate current sinking and when driving 2-lead LEDs.

Terminal screws. Insert 4-40 screws in each of the terminal holes from the top side and add 4-40 hex nuts on the bottom side, tighten firmly and solder the nuts to the circuit pads.

R1-R6. Match the color code of each resistor to the parts list. Make 90-degree bends in the leads of each resistor so it is centered between its two holes and the leads just fit. Insert and solder while holding the part flat against the card, then trim its leads flush with the tops of the solder tents on the back side of the card.

P1. Install this trim potentiometer as in Fig. RSD-2, push the three prongs all the way into the holes as you solder.

Q1, Q2. Spread the leads of this transistor slightly to fit the three holes, making sure the center (base) lead goes into the hole closest to input terminal screws and that the flat side of the of each transistor faces the direction shown in Fig. RSD-2. Push in only far enough to fit snugly without stressing the leads. This leaves the bottom surface of the transistor about 1/8-inch above the top surface of the board. Solder and trim.