

**Bill Of Materials for JH. Interpolating Scanner
(PCB mount components listed only.)**

Errors excepted, subject to modifications.

Corrected: 220nF must be 5mm spacing (not 7.5mm)

Parts marked with *) required for on-board PSU only.

Quantity	Part name	Remarks
	Semiconductors	
1	LM431	in TO-92 plastic package, or TL431 in similar plastic package. Looks like a small transistor.
1	LM324	
1	LM13600	or LM13700, or NE5517
1	TL071	
2	TL072	
9	SSM2210	or LM394, or similar matched npn pair
1 *)	7815	TO220 package; needs heat sink
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12	BC550C	Not every transistor has room for labelling on the PCB overlay. BC550C's are drawn slightly different from BC560C's though, so if you look closely, it should always be clear which is which.
20	BC560C	
2	1N4002	
1	1N4148	
9	2mA-LEDs	PCB mount or connected with wires; red, green or yellow
1	B80C1000	or B80C1500. Round (WO4) bridge rectifier
	Capacitors SMT	
9	100nF, 35V or higher, 0805	Only solder them in where the board is populated.
	Capacitors, Electrolytic	Polarized – note orientation! Higher voltage than specified is ok, as long as fits into the PCB space!
3	10uF, 35V	No bigger than 5mm diameter
2 *)	10uF, 25V (Tantal preferred)	near 7815 and 7915
2 *)	470uF, 35V	105 deg C version if available. No bigger than 10mm diameter!
	Capacitors, Polyester	
1	220nF	5mm spacing. Marked "u22"
	Capacitors, Ceramic	
2	220pF	2.5mm
	Trimpots, single turn	Rectangular Cermet version preferred. Check PCB layout to see what fits in.
1	100k	

	Trimpots, multi turn	Vertically mounted multiturn pots with set screw on top. Check PCB layout to see what fits in.
1	1k	
	Resistors, 1%	Metall film types.
18	68	68 Ohm
9	100	...
1	200	
1	620	
16	1k	1 kOhm
1	3k6	3.6 kOhm
1	3k9	...
2	4k7	
3	5k1	
2	5k6	
1	10k	10 kOhm
2	13k	...
2	15k	
2	27k	
1	30k	
10	33k	Attention! Nine of these 33k resistors are soldered to locations where 9 different resistor values are silkscreened on the PCB! (Scanner Vibrato needs individual values; Interpolating Scanner needs nine 33k resistors. Refer to Interplating Scanner Component Overlay on my web site.)
1	39k	
2	47k	
12	100k	
2	110k	
1	150k	
1	200k	
1	220k	
1	270k	
1	470k	
1	560k	
	Board Connectors	Of course you can solder the wires directly to the board, and then don't need any connectors! Here's what connectors I used (from Reichelt):
5	2-pin	PSS 254/2G (2pin, 2.54mm spacing)
3	3-pin	PSS 254/3G (3pin, 2.54mm spacing)
2	5-pin	PSS 254/5G (5pin, 2.54mm spacing)
1	8-pin	PSS 254/8G (8pin, 2.54mm spacing)