

NOTES:  
 1) ICOM (generic): INST. R8 & R37, Do Not Inst. (DNI) R9, R13, R34, R35, & R36  
 ICOM HM-151 (IC-7000): INST R34, Ro1, Ro2, Ro3, R10  
 DNI R8 R9, R12, R13, R24, R34, R35, R36, & R37  
 Kenwood (TM731 and similar):  
 RES VALUES AS FOLLOWS:  
 R8 = 0 R34 = 0 Ro2 = 6.8K  
 R9 = 22K R35 = 22K  
 R13 = 100K R37 = 100K  
 DNP: R12, R24, R37  
 Verify resistor values for R8, R9, R13, R34, R35, & R36 against the microphone schematic for the desired rig.  
 RES VALUES AS FOLLOWS:  
 Yaesu MH36: REQUIRES OPTION SELECTION (SEE NOTE 3).  
 RES VALUES AS FOLLOWS:  
 R24 = 27K R35 = 66.5K R36 = 147K Ro1 = 6.8K  
 R12 = 22K R37 = 54.9K R8 = 137K R9 = 357K  
 DNP: R13, R34  
 2) INST. R7 FOR D4 = FWR LED, or INST R4 FOR D4 = Fw LED.  
 DO NOT INSTALL BOTH.  
 3) Ro1 & Ro2 (6.8K/OPEN) and Ro3/R10 (1K/OPEN) ARE SOFTWARE OPTION STRAPS.  
 1 = RES INST, 0 = OPEN (default)  
 Ro3/R10 Ro2 Ro1 OPTION  
 0 0 0 ICOM, (40ms pulse)  
 0 0 1 Yaesu MH36 (100ms pulse)  
 0 1 0 Kenwood MC-440M (80ms pulse)  
 0 1 1 Generic radio (100ms pulse)  
 1 0 0 Generic radio (125ms pulse)  
 1 0 1 TBD  
 1 1 0 TBD  
 1 1 1 HM-151 feedthru mode (for IC-7000, et.al.)

TOP SIDE SMD PARTS LIST

QTY	REFDES	Description	MFR PN	MFR
6	C1, C3, C12, C13, C15, C17	CAP, CER, 0402, 0.1uF, 16V	CC0402JRX7R7B104	Yageo
2	C2, C14	CAP, CER, 0603, 1000pF, C0G, 50V	GSM1885C1102JA01D	Murata
3	C4, C5, C18	CAP, CER, 0805, 4.7uF, 10V	C201207R1A475M125AC	TKX
2	C6, C7	CAP, CER, 1206, 22uF, 10V	LMK316AB7226ML-PR	Taiyo Yuden
3	C9, C10, C21	CAP, CER, 0805, 1.0uF, 25V	C0805C105R3RACCTU	Kemet
1	C16	CAP, CER, 0402, 0.01uF, 25V	C0402C103R3RACCTU	Kemet
1	D1	TVS, UNI, 15V, 150W, D0219	MMSP15A-M3/89A	Vishay
1	D2	DIOD, SHRTY, 1A, 40V	RB160NM-40TFFR	Rohm Semi
1	D3	DIOD, LED, SMD, RED, 0805	599-011-0-078F	Diallight
17	FBI, FB2, FB3, FB4, FB5, FB6, FB7, FB8, FB9, FB10, FB11, FB12, FB13, FB14, FB15, FB16, FB17	FB, SMD, 0603, 600 ohm	BLM18AG6018N1D	Murata
4	Q1, Q2, Q4, Q6	TR, NPN, 30V, 0.85A, DCK-6	FDG6301N_P085	Fairchild Semi
1	Q3	TR, NPN, 30V, 0.85A, SOT23	BSM103,215	Nexperia
1	R3	RES, FLM, THK, 0402, 100, 1%	RC0402FR-07100RL	Yageo
1	R4	RES, FLM, THK, 0603, 820, 1%	RC0603FR-07820RL	Yageo
2	R5, R14	RES, FLM, THK, 0402, 20.0K, 1%	RC0402FR-0720KRL	Yageo
1	R6	RES, FLM, THK, 0402, 200K, 1%	RC0402FR-07200RL	Yageo
1	R11	RES, FLM, THK, 0402, 4.42K, 1%	RC0402FR-07442RL	Yageo
1	R15	RES, FLM, THK, 0402, 620, 1%	RC0402FR-07620RL	Yageo
1	R16	RES, FLM, THK, 0402, 10.0K, 1%	RC0402FR-0710KRL	Yageo
4	R20, R21, R22, R23	RES, FLM, THK, 0402, 49.4K, 1%	RC0402FR-07494RL	Yageo
1	R31	RES, FLM, THK, 0402, 12.4K, 1%	RC0402FR-0712K4L	Yageo
1	R33	RES, FLM, THK, 0402, 220, 1%	RC0402FR-07220RL	Yageo
1	U1	IC, VREG, LDO, 5.0V, SOT-233	LM2931TMP-5.0/NOPB	TI
1	U2	IC, MCU, 8051	CS051F531-C-T	SI Labs
2	U3, U4	IC, SW, ANLG, SPDT, SCT0-6	SN74LVC1G3157DCKR	TI
1	U5	IC, CMOS, SFR-REG, 8b, TSSOP-16	CS04948PWK	TI

BOTTOM SIDE SMD AND THRU-HOLE PARTS:

QTY	REFDES	Description	MFR PN	MFR
2	C11, C19	CAP, CER, 0805, 1.0uF, 25V	C0805C105R3RACCTU	Yageo
1	C8	CON, RJ-45, SMD-TH, RA	RJ45E4138101	Amphenol On Semi
2	J1, J2	TR, FEET, 30V, 0.5A, SOT-23	FEM3358P	Yageo
3	R1, R2, R3	RES, FLM, THK, 0603, 1.00K, 1%	RC0603FR-0710KRL	Yageo
3	R9, R12, R35	RES, FLM, THK, 0603, 0	RC0603FR-0700RL	Yageo
2	R13, R36	RES, FLM, THK, 0603, 22K, 1%	RC0603FR-0722KRL	Yageo
2	R17, R29	RES, FLM, THK, 0603, 10.0K, 1%	RC0603FR-0710KRL	Yageo
1	R18	RES, VAR, TOP, 1K, TH	3362P-1-102ALP	Bourns
1	R19	RES, FLM, THK, 0603, 1.80K, 1%	RC0603FR-0718KRL	Yageo
1	R24	RES, FLM, THK, 0603, 27K, 1%	RC0603FR-0727KRL	Yageo
1	R25	RES, FLM, THK, 0603, 20.0K, 1%	RC0603FR-0720KRL	Yageo
1	R26	RES, FLM, THK, 0603, 4.99K, 1%	RC0603FR-074999L	Yageo
1	R27	RES, FLM, THK, 0603, 49.9, 1%	RC0603FR-074999L	Yageo
1	R28	RES, FLM, THK, 0603, 820, 1%	RC0603FR-07820RL	Yageo
1	R30	RES, FLM, THK, 0603, 15.0K, 1%	RC0603FR-0715KRL	Yageo
1	R32	RES, FLM, THK, 0603, 1.50K, 1%	RC0603FR-0715KRL	Yageo
1	R37	RES, FLM, THK, 0603, 470, 1%	RC0603FR-07470RL	Yageo
2	Ro1, Ro2	RES, FLM, THK, 0603, 6.8K, 1%	RC0603FR-0768KRL	Yageo
1	R10 (part of Ro3 strap)	RES, FLM, THK, 0603, 1.0K, 1%	RC0603FR-071KRL	Yageo
1	R21	RES, FLM, THK, 0603, 137K, 1%	RC0603FR-07137KRL	Yageo
1	R9 (alt)	RES, FLM, THK, 0603, 357K, 1%	RC0603FR-07357KRL	Yageo
1	R35 (alt)	RES, FLM, THK, 0603, 66.5K, 1%	RC0603FR-0766K5L	Yageo
1	R36 (alt)	RES, FLM, THK, 0603, 147K, 1%	RC0603FR-07147KRL	Yageo
1	R37 (alt)	RES, FLM, THK, 0603, 54.9K, 1%	RC0603FR-07549KRL	Yageo

FOR RES OPTIONS, SEE NOTE1

