Parts List

AD200H Transmitter Part List

Description	Qty	Comps
1pF 50V 20% C0G Chip Ceramic Capacitor 0603	2	C30;C36
3pF 50V 20% C0G Chip Ceramic Capacitor 0603	1	C43
8pF 50V 20% C0G Chip Ceramic Capacitor 0603	2	C26;C39
10pF 50V 20% C0G Chip Ceramic Capacitor 0603	1	C34
15pF 50V 20% C0G Chip Ceramic Capacitor 0603	1	C38
33pF 50V 20% C0G Chip Ceramic Capacitor 0603	1	C11
47pF 50V 20% C0G Chip Ceramic Capacitor 0603	2	C24;C40
68pF 50V 20% C0G Chip Ceramic Capacitor 0603	2	C25;C37
100pF 50V 20% C0G Chip Ceramic Capacitor 060	3	C5;C7;C16
1000pF 50V 20% X7R Chip Ceramic Capacitor 06	6	C23;C27;C31-32;C35;C41
0.1uF 50V 20% X7R Chip Ceramic Capacitor 0603	2	C13;C18
220pF 50V 20% X7R Chip Ceramic Capacitor 060	1	C21
0.022uF 50V 20% X7R Chip Ceramic Capacitor 06	1	C17
10uF 10V 20% Chip Tantalium Capacitor Size A	8	C1;C9;C12;C14-15;C19;C22;C28
2.2uF 10V 20% Chip Tantalium Capacitor Size A	4	C2-4;C8
4.7uF 10V 20% Chip Tantalium Capacitor Size A	2	C6;C20
FEMALE HEADER	1	CN1
MALE HEADER	1	CN2
LED 3/RED	1	D3
RLR4004	1	D2
SVC208	1	D1
TRIMMER 10pF	2	C33;C42
TRIMMER 30pF	1	C29
COIL 3.8/2.5T	2	L3;L5
COIL 3/9.5T	1	L4
I.F.T 5X	1	L1
I.F.T 5R	1	L2
ANT BRK	1	H3
9V INPUT JACK	1	H1
MIC IN CONNECTOR	1	H2
2SC1412K Chip Transistor	3	Q1-3
MPS5179 Chip Transistor	2	Q4-5
27ohm 0.1W 5% Chip Resistor 0805	1	R24
33ohm 0.1W 5% Chip Resistor 0805	1	R28
100ohm 0.1W 5% Chip Resistor 0805	1	R23
10Kohm 0.1W 5% Chip Resistor 0805	3	R15;R21;R26
100Kohm 0.1W 5% Chip Resistor 0805	2	R8;R10
1Mohm 0.1W 5% Chip Resistor 0805	3	R9;R13-14
1.2Kohm 0.1W 5% Chip Resistor 0805	1	R7
12Kohm 0.1W 5% Chip Resistor 0805	2	R2;R4
18Kohm 0.1W 5% Chip Resistor 0805	1	R18
22Kohm 0.1W 5% Chip Resistor 0805	2	R6;R11
470ohm 0.1W 5% Chip Resistor 0805	1	R27
4.7Kohm 0.1W 5% Chip Resistor 0805	1	R17
47Kohm 0.1W 5% Chip Resistor 0805	4	R3;R12;R19-20
5.6Kohm 0.1W 5% Chip Resistor 0805	1	R5
68Kohm 0.1W 5% Chip Resistor 0805	1	R1
75Kohm 0.1W 5% Chip Resistor 0805	1	R16
820ohm 0.1W 5% Chip Resistor 0805	1	R22
8.2Kohm 0.1W 5% Chip Resistor 0805	1	R25
POLY SWITCH MFR010	1	SW2
SLIDE SWITCH	1	SW1
TEST POINT	4	T1-4
LP2951	1	U3
MC4558D	1	U2
NE571D	1	U1
POTENTIOMETER100K	1	VR1
POTENTIOMETER20K	1	VR2
X-TAL	1	X1

2.983 (d) (9) Tune-Up Procedure

A. SW1 to OFF, VR1 to midrange and VR2 to midrange.

B. Solder a 50 ohm coaxial cable (RG174) to the antenna terminal.

C. Split this cable three ways to feed a spectrum analyzer, modulation analyzer and frequency counter.

D. On the modulation analyzer select 50 uS deemphasis, 15 kHz LPF, FM mode and connect its audio output to an audio analyzer for distortion measurement.

E. Solder a shielded cable to the preamplifier output.

F. Connect the other end of the shielded cable to an AC voltmeter.

G. Apply 9 volts to the battery terminals and switch SW1 on. Adjust C29, C33, C42 and L2 for maximum power.

H. Adjust L1 for the proper frequency (nine times the crystal frequency) and repeat step G.

I. Apply 30 mV of audio at 1 kHz to the microphone terminals. Adjust VR2 for 775 mV preamplifier output.

J. Adjust VR1 for 12 kHz deviation. Adjust L2 and C29 for minimum distortion and maximum power.