

Parts List

AD200P 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 Tantalum Capacitor Size A | 8 | C1;C9;C12;C14-15;C19;C22;C28 |
| 2.2uF 10V 20% Chip Tantalum Capacitor Size A | 4 | C2-4;C8 |
| 4.7uF 10V 20% Chip Tantalum 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.