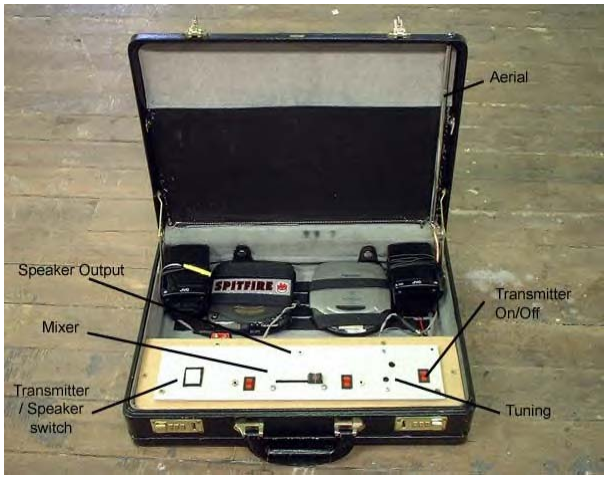
Pirate Radio Transmitter

Voltage: 9 - 14V
Useage: Subliminal Broadcasts & Parties
Range: Around 100 - 150m
Frequency: 100 - 108 FM

How to make a Radio Transmitter

This is a basic transmitter that we have used to power a couple of our pieces of equipment, Pirate Radio Jacket & Briefcase.

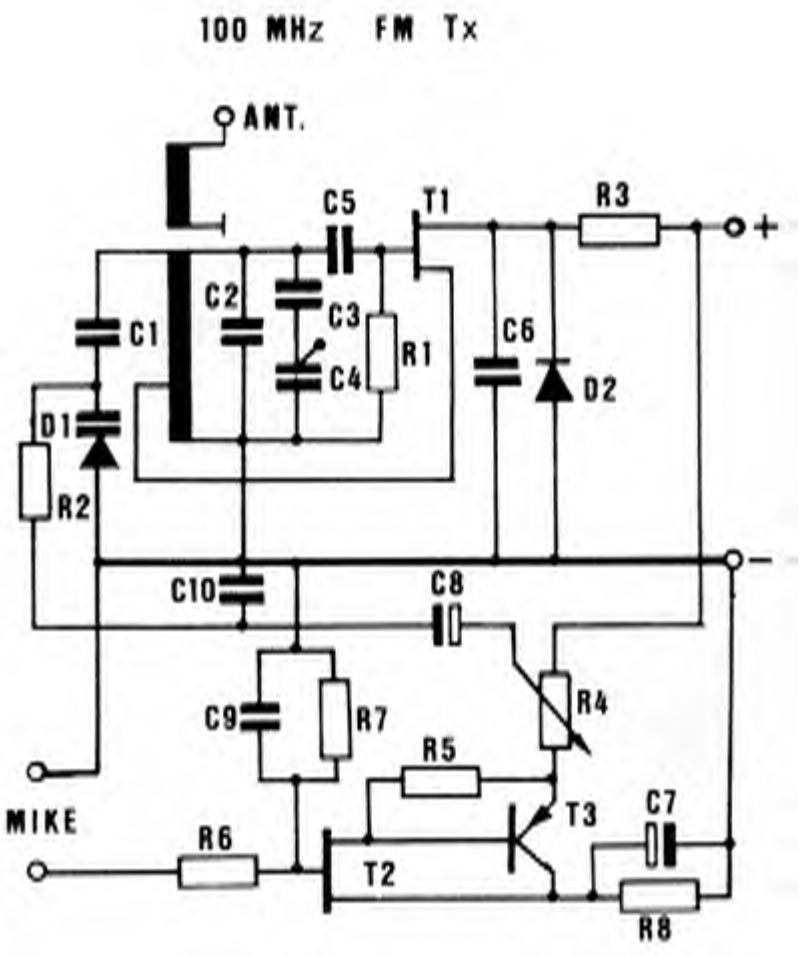


We are admittedly dunces when it comes down to ther ins and outs of electronic know how, however using the circuit below and following our list of which components are placed where, you should be able to produce your very own transmitter.

From here all you need to do is add a couple extra bits and bobs and you can connect up a microphone, Cd player or any other device to transmit to your hearts content. First of all though the transmitter, print our this page, head down to your local hardware/electronics store and get a piece of circuit board (you can get a host of different types of blockboards or 3 connection boards etc, get whatever you think looks easiest to use) and this tasty list of components (Best cut off the pirate radio title at the top of the page).

As you will soon find out the diagram below is an electrical diagram and your circuit will look a lot messier. Lines on the diagram represent connections between components, where two lines cross they do not neccesarily join in real life. The ONLY places where crossing lines join are where they have a black dot at the join. Bear this in mind when making your circuit.

You will notice when you buy it that C4 has three pegs and only seems to have two connections used on the diagram, the on on the diagram that seems to go to nowhere should be connected to the - symbol.



D1 - Variable Capacitor (Check Polarity)
D2 - Small Signal Diode 1N4148 (Glass)

R1 - 100K Resistor(Brown, Black, Yellow)
R2 - 220K Resistor(Red, Red, Yellow)
R3 - 22 Ohm Resistor(Red, Red, Black)
R4 - 1K Trimmer
R5 - 1K Resistor (Brown, Black, Red)
R6 - 56K Resistor (Green, Blue, Orange)
R7 - 1M Resistor (Brown, Black, Green)
R8 - 1K2 Resistor (Brown, Red, Red)

C1 - 5pF Ceramic Condenser
C2 - 6pF Ceramic Condenser
C3 - 15pF Ceramic Condenser
C4 - Trimmer
C5 - 15pF Ceramic Condenser
C6 - 1nF Ceramic Condenser
C7 - 100uF Electrolytic Condenser (Check Polarity)
C8 - 4,7uF Electrolytic Condenser (Check Polarity)
C9 - 100pF Ceramic Condenser
C10 - 1nF Ceramic Condenser

T1 - FET Transistor BF245A or BF245B
T2 - FET Transistor 2N3819
T3 - PNP Transistor BC307-8-9 or BC557-8-9

R4 should be connected as follows:

Point 1 connects to the join with T3 and R5
Point 2 connects to the join with R3
Point 3 connects to the join with C8

C4 Should be connected as follows:

Point 1 connects to the join with C3
Point 2 connects to the join with R1etc (to the negative power line)
Point 3 connects with the fat black line.

In order for this circuit to be of much use to you, you will need to attach an aerial, power and

audio input.

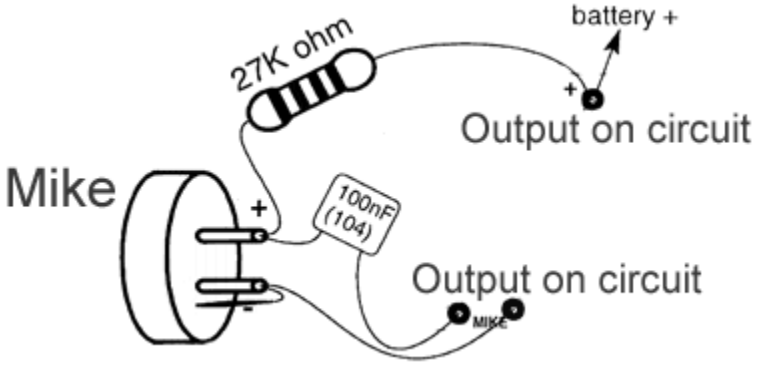
To power it all you need is a DC supply between 9 and 14 volts, you could use either a 9V square battery or some sort of adapter plug, this should be attached betweent the + and - points.

The antenna is next, this can range from either a short piece of wire, to a nice big extendable aerial. The better the antenna the better the transmitter will be, however more covert things may require a more subtle aerial. On the diagram The aerial seems to be connected to nothing, put a short wire to connect the two fat black lines together and connect the aerial where it says ANT.

AUDIO INFORMATION
Input Impedence 1 Meg Ohm, Input sensitivity 5mV, Max Input Signal 10mV

Any kind of microphone can be connected directly to the mic points. to connect a pre amplified signal ie from a DJ mixer you must connect a potentiometer or trimmer, the value being twice the output impedence of the source.

To connect an electet microphone (one which has no batteries in it) follow the instructions below (this also seems to work for connecting a Cd walkman or cassette player, although I'm sure there are many tech heads that will shout at us for sloppy electronics and sund quality etc).



Now all you need to do is design something to hide your transmitter in, and think of something good to transmit.
We chose a rather dashing jacket at first with the transmitter in one pocket, a mike on the lapel and power in another pocket:

This works a treat, however the aerial isn't that great and you look a bit of a fool speaking into your collar the whole time, so we decided to go for a revamp. Getting a bit ahead of ourselves in the technology stakes we managed to come up with our briefcase version, complete with speakers, extendable aerial, mixer, audio output and headphone sockets. However you will have to wait for instructions on how to build this as we have only just got our heads around it ourselves.

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