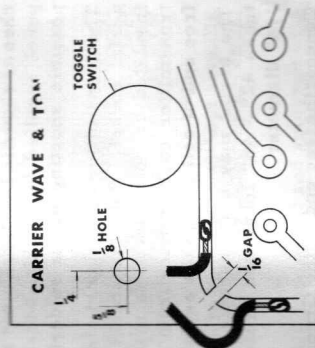

It is required to use the tone transmitter carrier wave only purely for short experimental purposes, this may be achieved by joining tags 1 and 2 for the constant carrier wave, and simply switching the transmitter on and off by the toggle switch. Whilst this method is a quick expedient, it should not, however, be pursued for long periods as it could eventually harm the valve filaments (L, T,) by constantly switching them on and off.

Another temporary measure is to unsolder and remove one end of resistor R₃ from the printed circuit panel. This has the effect of removing the tone modulation from the circuit without harm to any of the remaining Components. Tags 1 and 3 should be joined in this instance.

If the change to carrierwave operation is required as a permanent feature of the transmitter, a much better method is as follows. Referring to the diagram opposite, break the circuit by cutting out a small section of the conductor where shown. This can be done quite easily by making two cuts with a razor blade and peeling out the centre portion. Drill a $1/8$ " diameter hole where shown. Solder a flexible lead to each cut end of the conductor and feed both wires through the drilled hole. Join the other two ends of each wire to a single pole on-off switch. This also has the effect of removing the tone modulation circuit. 'On' would be for tone, 'Off' is for carrierwave.



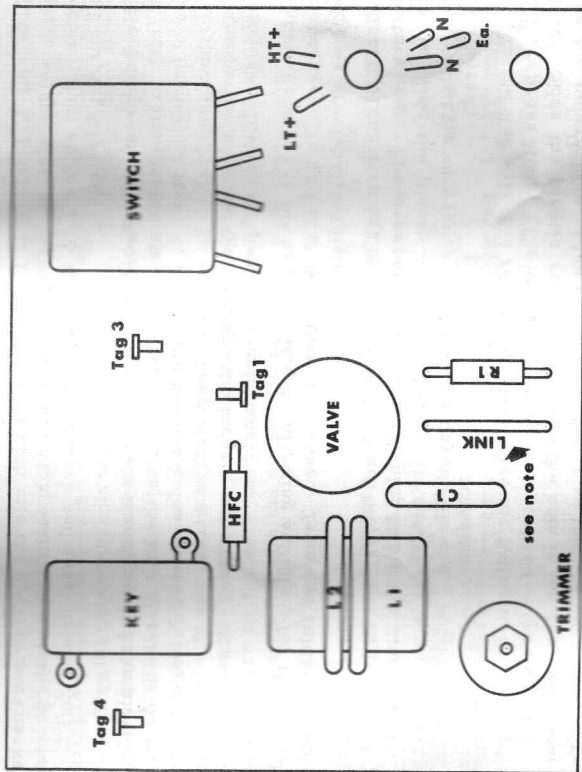
Likewise, the changeover of the solder tags 1 to 2 and 1 to 3 may also be dealt with in a similar manner by connecting to a single pole changeover switch.

PLEASE NOTE NEITHER OF THESE EXTRA SWITCHES ARE SUPPLIED IN THE KITS.

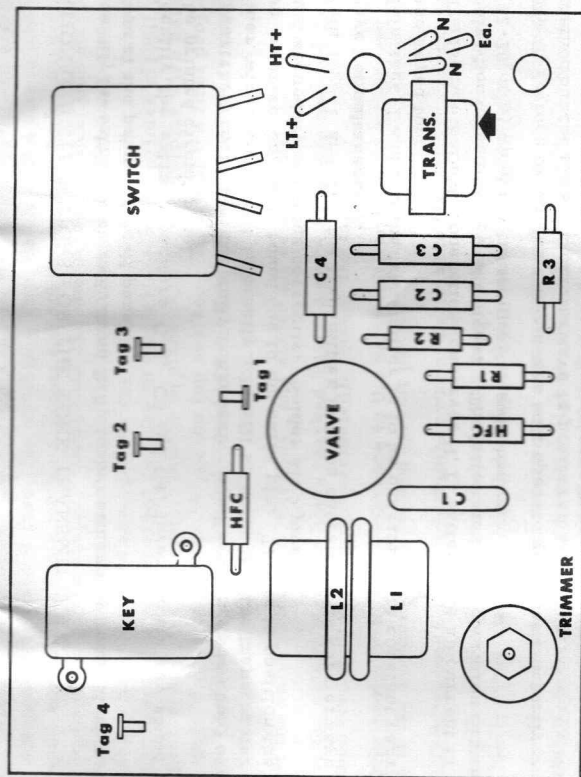
CHECKING

Either transmitter is now complete and ready for installing into the case, connecting to the batteries and testing. Before doing so however, thoroughly re-check that every component is in the correct position and has been properly soldered. A friend will often locate an error that you, yourself, have constantly overlooked. Check that no soldered joint is shorting out to a different conductor, or that a piece of surplus solder or wire is not doing likewise. Make certain that the soldered ends of the component wires have also been removed so that none of these could be accidentally bent and cause a similar short-circuit, especially when using a metal transmitter case.

Check that the coloured battery leads and terminals are correct. If the H. T. and L. T. voltages are transposed, and the transmitter switched on, this would render the valve useless by damaging the filaments (L. T.). VALVES DAMAGED THUS CANNOT BE REPLACED UNDER GUARANTEE.



COMPONENT LAYOUT OF THE CARRIER WAVE TRANSMITTER



COMPONENT LAYOUT OF THE TONE TRANSMITTER