

49MHz MONSTER RECEIVER CIRCUIT DESCRIPTION

The modulated signal coupled through C1 to the detector C2 and L3, which are tuned to transmitter's carrier frequency. The regenerative circuit consists of Q1, C3, C4, L1 and R2 will regenerate to a higher level by feeding back a portion of output signal back to the input. With the big capacitor C6 and R1, the regenerative circuit will quench off periodically. This self-oscillating circuit, on the other hand will rectify the incoming signal.

The rectified signal goes through the low pass filter R5 and C7 and then it is amplified by the network consists of U1 (RX2), C8, C10, C11, R6, R7, R8 and R20. Finally, the receiver IC U1 will decode the demodulated signal and generate the proper driving output to drive the motors.

The voltage regulator Zener BZ1 and R21 are used to reduce the frequency drift of the detector and maintain the voltage supply of the RF part.

C14 to C19 are used to filter the EMC noise of the motors. The only ground plate of the receiver is on the PCB only. The receiver is powered by six AA size batteries, which are connected to an ON/OFF switch.