TRANSMITTER

CIRCUIT DESCRIPTION

This Transmitter is a low power remote control transmitter consisting of two transistors in the RF circuitry. IC1 and IC2 generate the pulse and feed through R7 and R10 to modulate the RF. Q1 is a crystal-controlled oscillator. The transistor is the output stage. A pi circuit is to match the antenna. The unit is operates in the 49MHz RC band.

ANTENNA AND GROUND CIRCUITRY

This unit makes of a short antenna. The antenna is inductively coupled. The antenna is self contained, no provision is made for an external antenna. This unit is power from a 9.0V battery.

No ground connection is provided. The unit relies on the ground tract of the printed circuit board.

RECEIVER

CIRCUIT DESCRIPTION

In the receiver the signal comes in on the receive antenna to the RF amplifier, Q6. The output of q6 is coupled through C1 to T1 – the tuned circuit of the superregenerative detector Q1. The detected signal from Q1 amplified by the op amp IC1-A and Q2. The buffer drives the decoder circuitry made up of IC1 and IC2. IC2 sends the decoded signals to IC3, which controls the driving circuitry of the motors for the wheels and for turning.

ANTENNA AND GROUND CIRCUITRY

This unit makes use of a short, antenna. The antenna is inductively coupled. The antenna is self contained, no provision is made for an external antenna. This unit is powered from a 9.6V battery.

No ground connection is provided. The unit relies on the ground tract of the printed circuit board.