

Brilliant Concepts PS-001-TX

FCC ID: PG5PS001BC1200I

Theory of Operation:

The PS-001-TX is used with a TV/Video remote control (the PS-001-RX). The function of the product is to provide a radio frequency signal from the base unit (PS-001-TX) and the remote control (PS-001-RX) to help users locate the remote control.

The PS-001-TX is a radio frequency transmitter operating at 311.96 MHz. The frequency of operation is determined by the tank circuit composed of TL1, TC3 and TC1 and the printed circuit board antenna.

Upon application of power to the oscillator circuit (around TQ1), the transistor circuit begins to oscillate.

The HT12E encoding chip provides base driven to TQ1, turning the transistor ON and OFF in a pulse-modulated mode. The encoding of the HT12E is set to produce a pulse train that is recognized by the receiver embedded in the TV remote control.

The unit transmits only when the momentary CALL button is pressed.

The PS-001-TX also provides a base for charging of the remote control. This is supplied by TQ2, configured as a linear voltage regulator which drops the 12V input voltage to 3.6VDC to charge the remote control.