

DESCRIPTION OF OPERATION

GENERAL

The PCT/PCR315 is a multifunctional body control system designed by Clifford Electronics and is designed to work in the automotive atmosphere as a remote keyless entry and/or automotive security. It consists of a receiver/control module and a hand-held RF transmitter. The system provides the vehicle owner with various control functions (Arm/Disarm alarm system, Lock/Unlock occupant doors, and Enable/Disable luggage compartment switches).

TRANSMITTER

The hand-held RF transmitter (PCT315) consists of the housing, two control buttons, a Microprocessor, a UHF oscillator, and a 12 Volt battery. The Microprocessor uses an RC stabilized clock and the RF oscillator is SAW stabilized to resonate at 315 MHz. The modulation format is ASK, with a PWM code data format. Once the user presses a button, power is applied to the Microprocessor, which turns the RF oscillator on and off at the rate of the PWM code data being generated. The RF signal sent to the Receiver Module (PCR315) will instruct the module to perform certain functions in correspondence to which transmitter button is pressed.

RECEIVER

The 315 MHz receiver, (PRC315) is based on a Plessey Receiver chip. The circuit uses a 4.9152 MHz crystal to synthesize the 314.6 MHz LO. Thus the receiver is a Super-heterodyne type. The IF amplifier detector and related functions are all on the Plessey chip. External are R, L, and C. The whole receiver is built on a daughter board. The data from this board goes to the main board where a microprocessor decodes the base band signals and sends out appropriate (parallel) command to control the functions dictated by the transmitter signal.

The antenna is external to the receiver module and is mounted in the rearview mirror of the automobile.