

EXHIBIT E

DESCRIPTION OF ELECTRICAL CIRCUITRY:

BASE UNIT:

A) TRANSMISSION UNIT OPERATION.

- 1) The communication process with the play station is performed and the information is decoded to build the transmission data package to be sent to the controller unit. This data package includes 24 bits: 3 bits for the ID code gotten from the dip switches, 2 bits for macro function, 2 bits for operation modes, 1 bit for the smaller motor, 8 bits for the bigger motor and 8 bits for parity.
- 2) The data package is sent from the pin 11 of IC102 (CPU) to the pin 19 of IC101 (RF chip).
- 3) The data package is modulated using FSK modulation technique by the internal PLL and VCO of IC101 and then it is sent to the power amplifier included in the IC101.
- 4) Finally the RF transmission signal coming from the power amplifier output of IC101 (pin 5) is matched to the antenna through C125, L106, C122 and C140.

B) RECEIVER UNIT OPERATION.

- 1) A data signal from the controller unit is received by the antenna, then it is matched to the LNA of IC101 (pin 2) through C128, L103 and C129.
- 2) Then the RX signal already amplified by the LNA is mixed with other frequency coming from the PLL of IC 101 to get a 10.7MHz I.F. signal in the mixer output terminal (pin 44).
- 3) Then the 10.7MHz signal goes through CF102 to pin 42 of IC101 where it is amplified in the pin 41, then it goes through CF101 to the demodulator input (pin 39) where the signal is completely demodulated.
- 4) Finally the RX data signal is gotten in the output of the data slicer (pin 28) of IC 101 and it is going to the RX data terminal of IC 102 (pin 12).
- 5) The RX data signal is decoded by IC102, then this data information is used when a communication with the play station happens, during this process all the buttons states and joysticks are sent to the play station.