

## BP-10017F : Theory of operation

### 1. Power Section

The Power section is composed of 1)the external DC power supply 2) battery DC 1.5V source and power up part.

#### 1] The external DC power supply

When the external DC 12V is input, the DC power decreases by DC 5V through the regulated circuit and supplies DC 5V to each part.

#### 2]The battery DC 1.5V source and power up part.

When DC 1.5V is input from a battery, the DC power increases by DC 3V through power up circuit and supplies DC 3V to each part.

### 2. Signal input section

The signal is input through the stereo audio cable.

### 3. FM transmission section

FM transmission section includes 1)FM oscillation part and 2)amplifier part.

The functions of each part are :

#### 1] FM oscillation part

FM oscillation part resonates crystal 7.6MHz and generates 19KHz ,FM transmission frequency, by PLL.

#### 2]Amplifier part

Amplifier part amplifies FM transmission frequency generated from FM oscillation part and deliveries it to antenna.

### 4. Antenna

Antenna radiates FM transmission frequency delivered from the amplifier part and uses wire antenna.

### 5. Frequency selection part

FM transmission frequency is selected by the frequency selection switch.