

**SK TECH CO., LTD.**

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The transmitter is a low powered, hand help unit for remote controlling the car door/engine. The transmitter is powered from a 6-volt battery. The transmitter is manually operated by the buttons pushed and will automatically deactivate immediately after the button being released.

The transmitter is designed to operate on a single fixed frequency at 413.39MHz. There are two buttons, SW1 and SW2, which enable the micro controller (PIC12C508) to supply the power (voltage) to the RF section through the Switching-TR Q5 and Q6. Once a button is pushed, data from micro controller (Pin No. 7) is transmitted to oscillator circuit that is composed of a crystal oscillator of 45.932MHz, C26, C27, and C29. And also Q4, L7, L8, and R12 lock the oscillator to 9 times the external crystal frequency. This resonant frequency, 413.39MHz, is coupled with Q3 via C22, and then amplified. Where the filter, which is composed of C20, C21, L6, is used to reduce the spurious emission. The final amplification is achieved via Q2 and Q1, and then the output signal is radiated through the antenna after filtered composed of C2, C1, and L1. The type of antenna is rod antenna, and its impedance is 50 ohms.

The function of each key.

1. Lock function

: Press button for about 0.5 sec, then the door will be locked.

2. Unlock function

: Press button for about 0.5 sec again, then the door will be opened.

3. Engine start

: Press button for about 2 sec, the engine will be started.

(To start engine, reservation for engine start should be carried out in the manual transmission vehicle)

4. Trunk open

: Press and buttons simultaneously for about 2 sec, the trunk will be opened.

All tuning and verification are performed by the manufacturer and there are no adjustments can be made by the user. No external ground is required or used with this transmitter.