

Kenwo industries Limited

Technical Description of Main unit (MCM-9)

MCU section

The unit contains a powerful MCU (micro-controller) U7, Which controls the whole unit, a UHF wireless data transceiver sends RF signals to and receives RF signals from remoter. A 32.768KHz crystal (X1, C46, C47 and U7) provides a time base signal for the MCU. MCU detects many trigger inputs to protect the car: car ignition key is turned on (Q20 and its related components), shock sensor (U2, Q5, U5 and its related components) detects shock or tilt, perimeter sensor (an optional microwave sensor) (Q16, D7, Q21 and its related components) detects anybody intrude nearby. On the other hand, MCU provides electronic locking mechanism to prevent the car from being stolen, and generates sound and vision output to alert the intruder: The unit provides a driving output (Q22 and its related components) for a anti hi-jack (an optional relay box) to cut the oil pump, unit provides a driving output (U8 and its related components) for L/R lamps, also the unit (Q17, T1, BZ1 and its related components) generates beeps and alert signal to alert the user/intruder. Besides a backup battery and charge unit (BAT1, D5, D4, Q6, Q7 and its related components) keeps energy to protect the unit is being power cut.

The unit includes a 2-way remote VAK06 to control ON/OFF (ARM/DISARM) of the main unit; also the main unit echo back or send trigger signals to remote, thus the user knows what is happening.

RF section

U4 (ATA5428) is a UHF wireless data transmitters and receiver, MCU controlled it through port SCK,SDI_TMDI,SDO_TMDO and IRQ. Q1,Q2 and its related components compose RF power amplifier when transmitting. Q3,Q4 and its related components compose low noise amplifier when receiving.

RFID section

The 125KHz signal generated by 36th, 37th pin of U7, will be amplified by amplifier net (including Q8、Q9、Q10、Q13、U9、U8 and etc.) and radiated by antenna net (including L6, C72).