

THE ABS-1000 IS A SECURITY ALARM CONTAIN REMOTE CONTROL OPERATED WITH BUILT-IN PIR SENSOR, 2 MINS. OF 115 dB SIREN SOUND AND AUXILLIARY OUTPUT TERMINALS TO TRIGGER OTHER DEVICES.

THE CIRCUIT DESCRIPTION ARE AS BELOW :-

A) PIR SENSOR BOARD

- 1) WHEN THE ABS-1000 IS ARMED, THE E. CAP. (C317) CHARGE UP AND CMOS IC (U302) INPUT GO HIGH AS WELL AS OUTPUT GO LOW AND NO TRIGGER SIGNAL COULD RECEIVED. THIS IS POWER ON DELAY FUNCTION TO REDUCED FALSE ALARM.
- 2) AFTER 1 MIN. STABILIZED, THE PIR SENSOR CAN DETECT THE IR SIGNAL AND AMPLIFY SIGNAL BY OP-AMP (U301A-B). THE WINDOW COMPARATOR IC (U301C-D) DETECTED THE ENOUGHT LEVEL TO TRIGGER THE CMOS LOGIC IC (U302A-B) TO OUTPUT THE TRUE SIGNAL.
- 3) THE ANTI-TRIGGER DELAY TIMER CONTAIN CMOS IC (U302C) AND FEW COMPONENTS (R317 AND C315) TO PREVENT TRIGGER SINGAL CYCLE AGAIN BETWEEN 2 MINS.

B) MAIN CONTROL BOARD

- 1) THE SUPERREGENERATION TYPE UHF RECEIVER CONTAIN TRANSISTORS (Q1 AND Q2) AND FEW COMPONENTS. THE RECEIVER FREQ. MAY ADJ. BY TUNING THE COIL (L2) AND CER. CAP. (C11). THE RF SIGNAL AMPLIFIED BY OP-AMP (U101A) AND DETECTED CODE DATA BY (U101B) TRANSFER TO THE DECODER IC (U102).
- 2) THE DECODER IC (U102) RECEIVED THE ARM DATA SIGNAL WILL TURN ON THE TRANSISTOR(Q103) CHANGING THE LOGIC CONTROL STATE, ON THE OTHER HANDS THE DARM DATA SIGNAL WILL TURN ON THE TRANSISTOR (Q102) CHANGING OTHER LOGIC STATE.
- 3) THE ARM AND DARM CONTROL LOGIC CONTAIN SOME CMOS IC (U103A-3 AND U104A) MAKING MONOSTABLE MULTIVIBRATOR FUNCTION. WHEN ON ARM STATE THE TRANSISTOR (Q110) TURN ON POWER SUPPLY AND THE PIR BOARD START TO WORK. ON DARM STATE THE TRANSISTOR WILL TURN OFF.
- 4) IF SOME MOTION IS ACTIVATE ON THE ARMS STATE, THE SIREN TIMER START TO CHARGE UP AND THE HI POWER TRANSISTOR (Q107) WILL TURN ON THE MAIN CURRENT PASSING THROUGH TO THE SIREN GENERATOR CIRCUIT. VERY HI LEVEL SIREN SOUND COME OUT AND AFTER 2 MINS. LATER THE TIMER AUTOMATIC TURN OFF.
- 5) THE BEEP TONE GENERATOR CONTAIN OF CMOS IC (U104D-F) AND TRANSISTOR (Q109, Q110) WHEN DECODER IC RECEIVED THE ARM DATA WILL BEEP A HI TONE SOUND ONCE. WHEN DECODER IC RECEIVED THE DARM DATA WILL BEEP A HI TONE SOUND TWICE.

C) CONNECTION BOARD

- 1) THE SECURITY ALARM CAN OPERATION USE PLUG IN DC ADAPTOR OR AC 16V SUPPLY AND BACK-UP BY LEAD ACID BATTERY. THE BOARD CONTAIN TWO VOLT REGULATORS (U201 AND U202) SUPPLIED CURRENT TO CONTROL BOARD. THE EXT. SIREN RELAY DRIVED BY TRANSISTOR (Q201) WHEN THE ALARM ON THE ARM STATE AND TRIGGER FROM MOTION SENSOR OR MAGENTIC SWITCH.
- 2) THE CODE SETTING MOTHOD BY CHANGE THE TRI-STATE PIN HEADER JUMPERS TO MATCH THE TRANSMITTER'S CODE.

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