

CAR RETURN ALARM
CODE 249

LEVEL 1

Car back alarm circuit is an electronic circuit. That is useful to the driver by giving people an alarm notice when backing a car. This circuit can be connected with back light without any effects toward lighting or engine and consumed only less supply.

Technical specifications:

- power supply: 12VDC.
- dimensions: 2.18 x 1.27 inches

How to works:

TR3 and TR4 are connected as high frequency to drive PIEZO to alarm. TR1 and TR2 are connected as low frequency (1 Hz). TR1 and TR2 will alternately one by one. TR3 and TR4 are connected as frequency generator. This high frequency is depending on VR1, R5, R6, R7, C3 and C4. Once TR1 works, sound generator will working and PIEZO will alarm. If TR1 stops working, PIEZO will stop alarming too.

PCB assembly:

Shown in Figure 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. If the pins will not enter the holes with ease, use a small drill to slightly enlarge the opening. All components with axial leads should be carefully bent to fit the position on the PCB and then soldered into place. Make sure that the electrolytic capacitors are inserted the correct way around. Some components are particularly sensitive to heat (ie: Transistors, IC's, diodes etc.) extra care must be taken to only apply the iron for as little time as possible, using a pair of pliers to grip the leads will help conduct heat away. Trim components leads with wire cutters to prevent excess lengths causing a short circuit. Now check that you really did mount them all the right way round!

Testing:

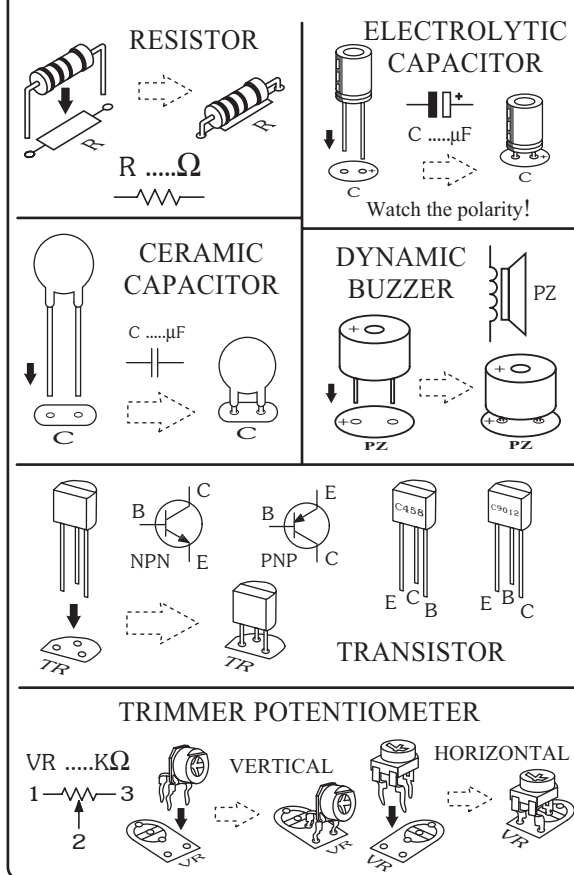
Apply power supply 12 volts to the circuit. PIEZO will alarm, stop and alarm continuously. If requires longer alarm period, increasing the value of C1. If

requires more alarm frequency, decreasing the value of C1.

Application:

Before installing the circuit with car or motorcycle, please check the pole of car or motorcycle. If car body is negative pole, connecting 12 volts position pole (" +12V" point) with back light switch and negative pole ("G" point) with car body. But if car body is positive pole, connecting 12 volts negative pole (" +12V" point) with back light switch and positive pole ("G" point) with car body.

Figure 1. Installing the components



Troubleshooting:

The most problem like the fault soldering. Check all the soldering joint suspicious. If you discover the short track or the short soldering joint, re-solder at that point and check other the soldering joint. Check the position of all component on the PCB. See that there are no components missing or inserted in the wrong places. Make sure that all the polarised components have been soldered the right way round.

Figure 2. The car return alarm circuit

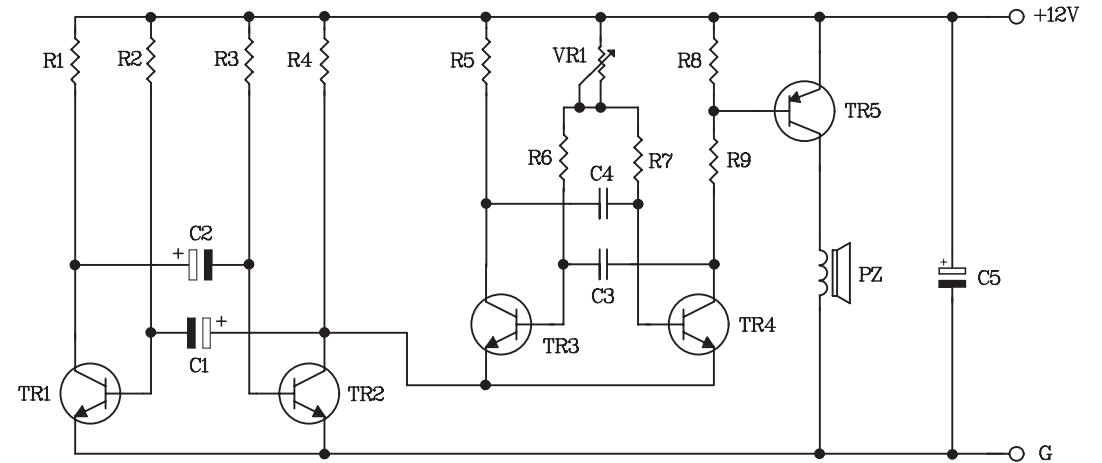
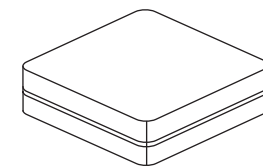
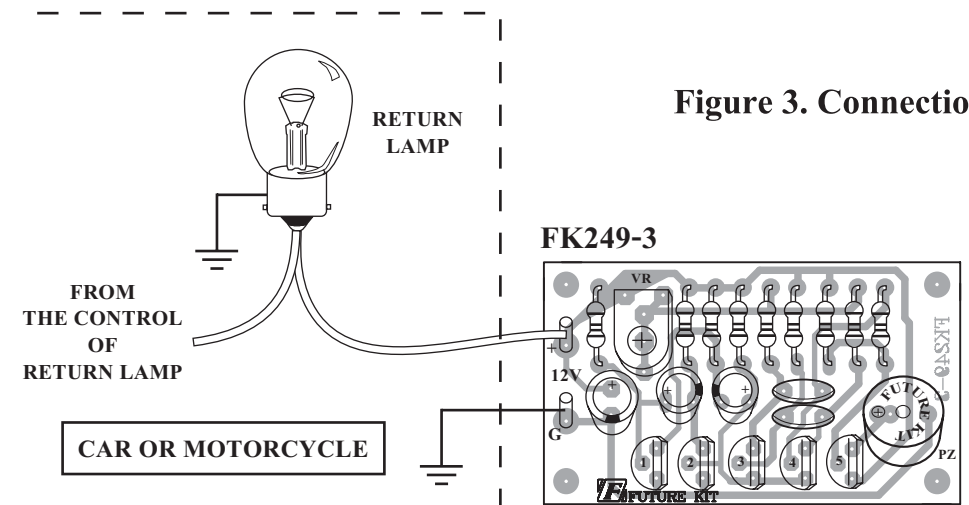


Figure 3. Connections



NOTE:

FUTURE BOX FB01 is suitable for this kit.

NEW KIT SET

CODE FK	DESCRIPTION	POWER
511	TWO FUNCTION INFRARED SENSOR	12VDC
674	POWER AMP. 2W MONO WITH SPEAKER	9-12VDC
675	POWER AMP. 2+2W STEREO WITH SPEAKER	9-12VDC