

# LUGGAGE SECURITY SYSTEM

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While travelling by a train or bus, we generally lock our luggage using a chain-and-lock arrangement. But, still we are under tension, apprehending that somebody may cut the chain and steal our luggage. Here is a simple circuit to alarm you when somebody tries to cut the chain.

Transistor T1 enables supply to the sound generator chip when the base current starts flowing through it. When the wire (thin enameled copper wire of 30 to 40 SWG, used for winding transformers) loop around the chain is broken by somebody, the base of transistor T1, which was earlier tied to positive rail, gets opened. As a result, tran-

sistor T1 gets forward biased to extend the positive supply to the alarm circuit. In idle mode, the power consumption of the circuit is minimum and thus it can be used for hundreds of travel hours.

To enable generation of different

alarm sounds, connections to pin 1 and 6 may be made as per the table.

Select 1 (Pin6)	Select 2 (Pin1)	Sound effect
X	X	Police siren
V <sub>DD</sub>	X	Fire-engine siren
V <sub>SS</sub>	X	Ambulance siren
"-"	V <sub>DD</sub>	Machine-gun sound

Note: X = no connection; "-" = do not care

