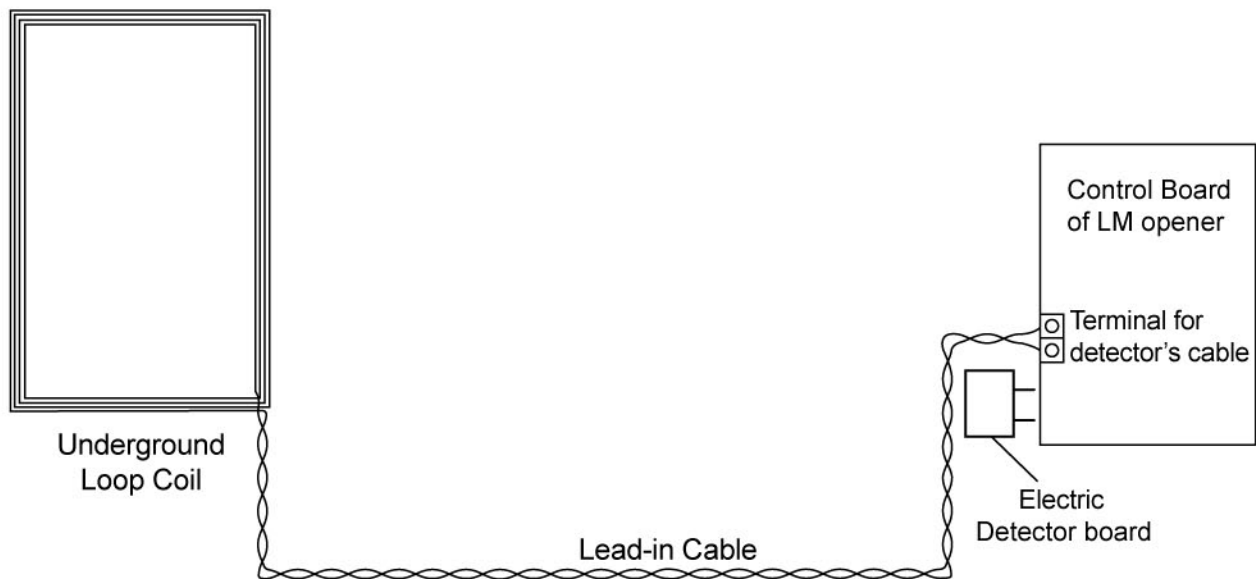


Manual Instruction for Loop Detector (LM154)

The LM154 Loop Detector is designed to be used with LockMaster™ Swing Gate Opener only. It allows your vehicle to exit the property without hand operation. The gate opens automatically when loop detector senses the vehicle moving past.

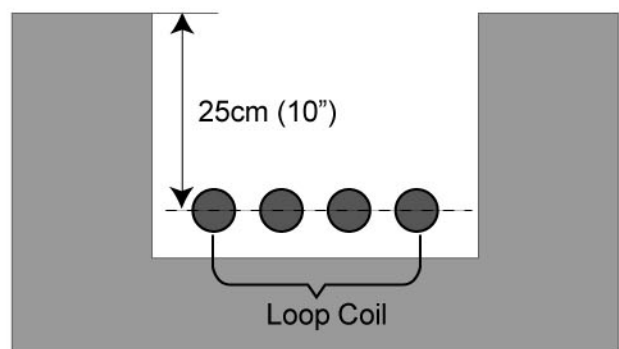
The LM154 Loop Detector is comprised of three elements: the Underground Loop Coil, Lead-in Cable and Electric Detector Board.



I. Determine the Size and Placement of Slot and Loop Coil

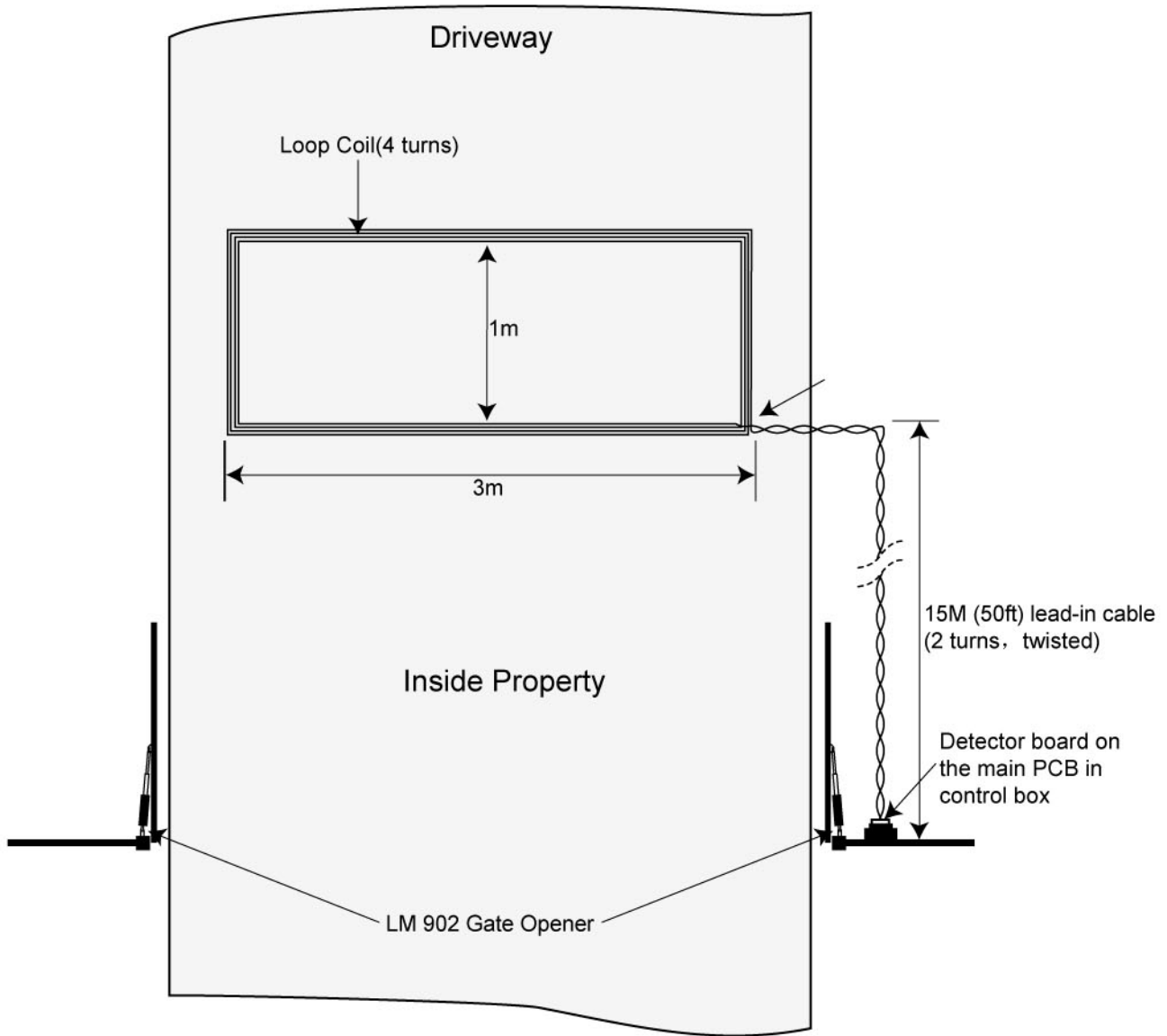
1. Cutting Slot

Use a concrete saw to cut a slot of 50mm in width and 250mm in depth in rectangular pattern.



2. Placing Cable

It is suggested to place 4 turns of the cable. The loop coil must be held tightly twisted. The 15-meter (50ft) lead-in cable should be also placed 250mm below the surface of the pavement.

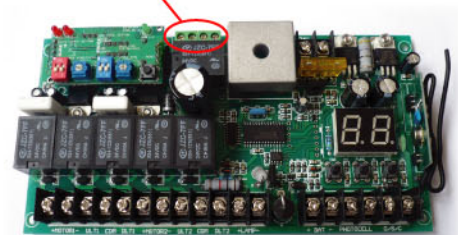


II. Installing the Electric Detector Board

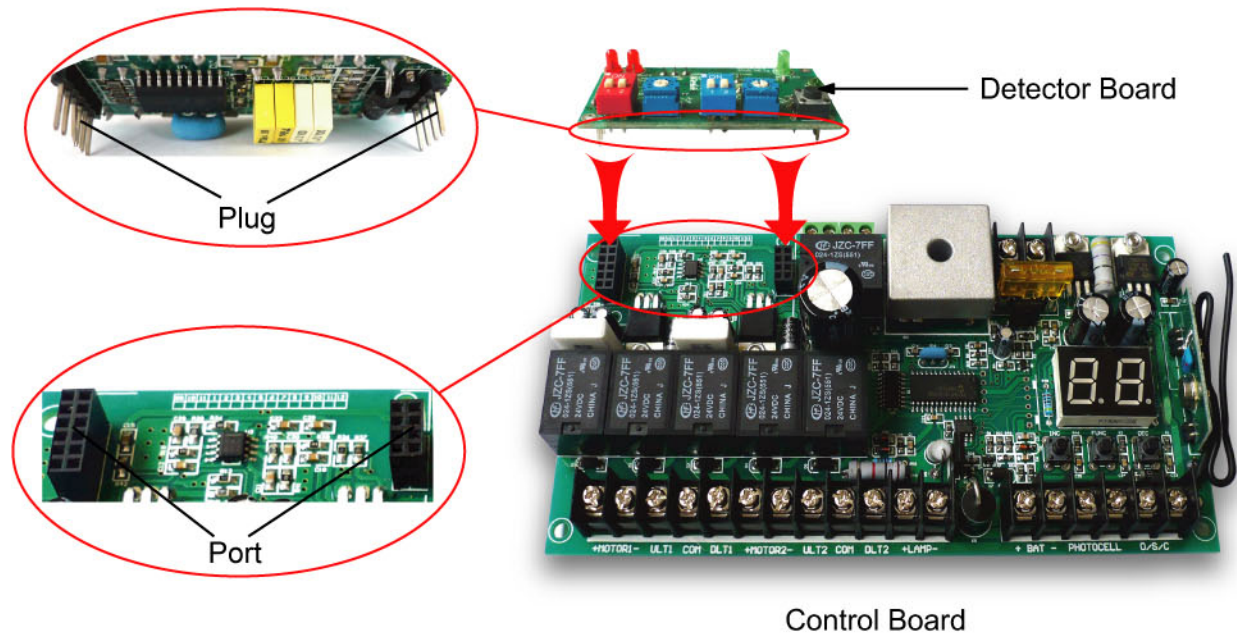
3. Connecting to control box

The two stripped end wire of lead-in cable is connected to the electric detector board which is plugged into "port for loop detector" on main control board in control box.

Terminal for detector's cable
Twisted-pair



Control Board

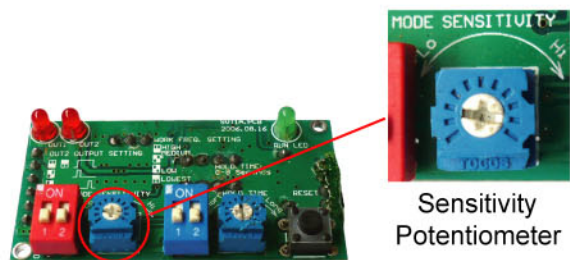


III. Testing

4. Testing the sense function

Drive the vehicle to approach loop coil and see if the gate opens once the LM opener is power ON. If the gate doesn't open, adjust the sensitivity button (SB) and test again until the gate opens.

5. Adjusting Sensitivity



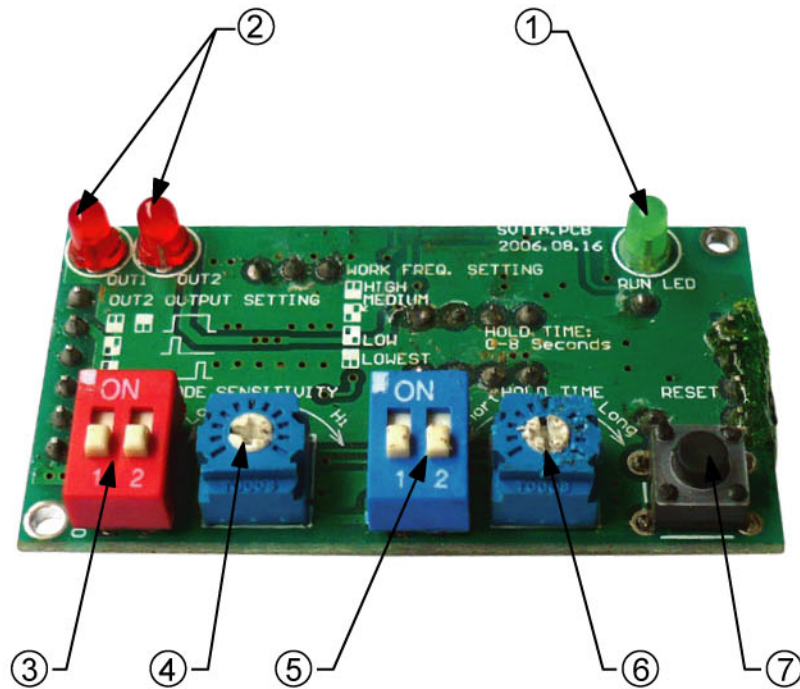
- Turn the SP clockwise to increase the sensitivity.
- Turn the SP counter-clockwise to decrease the sensitivity.

NOTE: The sensitivity of the loop detector should be adjusted at a proper range to detect the moving vehicle. For safety, the sensitivity should be adjusted to avoid unwanted moving metal objects from activating the gate opener, such as moving children's toy cars, bicycles and tricycles.

IV. Sealing

6. Once finish testing, fill in the slot with soil or sand, and level the pavement.

V. General Information on the Detector Electric Board



Detector Board

①	<p>Operation Indicator The LED light slowly flashes when the detector electric board is in normal operation.</p>	④	<p>Sensitivity Adjusting Turn it clockwise to increase the sensitivity, and counter-clockwise to reduce the sensitivity.</p>
②	<p>Loop Indicator The LED light slowly flashes before it is OFF if the loop coil is detected once the control box is power ON. If the LED light firstly flashes slowly and then flashes quickly before it is OFF, abnormality happens in the loop coil. Check the loop coil. If a vehicle is detected, the LED light will be ON for a few seconds depending on Sensitivity Boost Time-delay Setting.</p>	⑤	<p>Output Frequency Setting The mode has been set in the factory.</p>
		⑥	<p>Sensitivity Boost Time-delay Setting The time-delay is adjustable from 0~8 seconds. Turn it clockwise to increase the time-delay.</p>
③	<p>Output Mode Setting The mode has been set in the factory.</p>	⑦	<p>Reset Button Press the rest button in case of abnormality to reset the detector PCB.</p>