

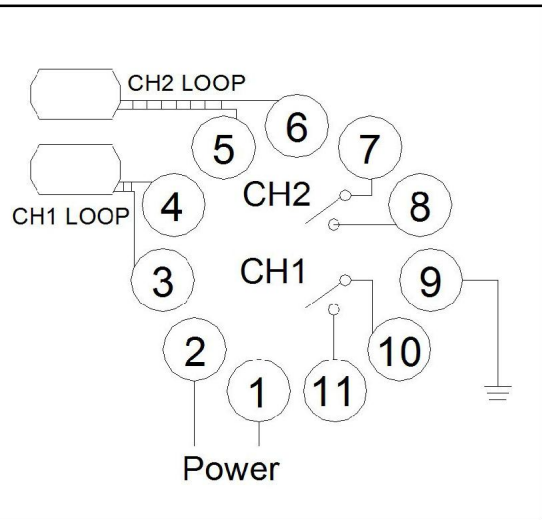
# **Dual Channel Traffic/Parking Detector User Guide**

**Installation Manual – LD-200 Rev A**  
**Dual Channel Vehicle detector LD-200**

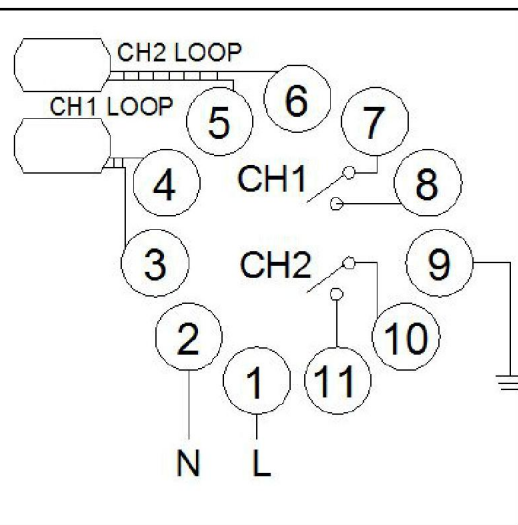
# LD-200 Dual Channels Traffic Detector User Guide

## I. Connections

Pin	LD-200	LD-202
1	100-240V AC	12-24VADC
2	100-240V AC, Neutral	12-24VADC
3	CH1 LOOP	
4	CH1 LOOP	
5	CH2 LOOP	
6	CH2 LOOP	
7	CH2 Relay COM	
8	CH2 Relay N.O	
9	Chassis Ground	
10	CH1 Relay COM	
11	CH1 Relay N.O	



Pin	LD-205	LD-206
1	100-240V AC	12-24VADC
2	100-240V AC, Neutral	12-24VADC
3	CH1 LOOP	
4	CH1 LOOP	
5	CH2 LOOP	
6	CH2 LOOP	
7	CH1 Relay COM	
8	CH1 Relay N.O	
9	Chassis Ground	
10	CH2 Relay COM	
11	CH2 Relay N.O	



## II. Indicates and Switch

(1) **Power Led:** RED power LED indicates "Power ON"

**CH1 Detecting Led:** Continuously On: Indicates vehicle detection.

Blinking slowly: Indicates loop is short circuit or the number of twists after the loop is not enough.

Blinking fast: Indicates loop is open circuit or too many twists after the loop.

**CH2 Detecting Led:** Continuously On: Indicates vehicle detection.

Blinking slowly: Indicates loop is short circuit or the number of twists after the loop is not enough.

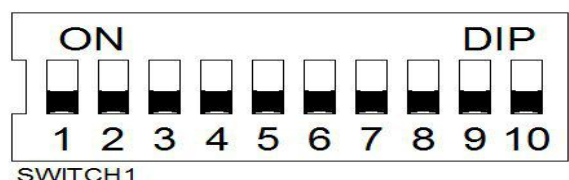
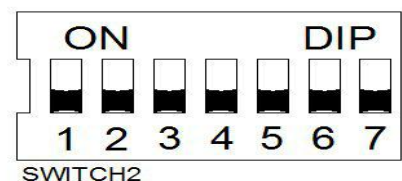
Blinking fast: Indicates loop is open circuit or too many twists after the loop.

(2) **Sensitivity Selection**

Sensitivity and frequency of the loop can be adjusted by 7-way dip switch and 10-way dip switch setting.

User can select 8 different setting by changing the setting of the dip-switch to different modes as in the dip-switch setting tables below. Dip switch 6, 7 and 8 for CH1 sensitivity selection with 0.8 being the least sensitive and 0.015 being the most sensitive.

Dip switch 3, 4 and 5 for CH2 sensitivity selection with 0.8 being the least sensitive and 0.015 being the most sensitive.



**(3) Switch 1=S1: Channel 1 Loop Function Selection (10 way dip switch)**

**1. (Switch 1)DIP 1 & DIP 2 Special Sensitivity Increase For Both Trailer (Both Channels)**

DIP NO.	DIP MODE	Function
DIP 1	ON	Increase sensitivity for both channel to avoid unwilling relay Off for leaving especially for trailer
DIP 2 (Automatic Reset (Both channels))	ON	Vehicle can be permanently present. (no auto-reset, unless vehicle has left or manual reset)
	OFF	Normal mode, (automatic reset after 10minutes present of vehicle, used to solve the mistake operation. If it is recommended).

**2. (Switch 1=S1)D 3,D4,D5 and (Switch 2=S2) D1,D2 Setting Special Functions(Mode1,2,3 Direction Detection. Mode4,5,6 Normal mode, two loop detection are separated.)**

	S1	S2	Function
Mode 1	D3->ON		Direction Detection. (If vehicle moves from CH1 to CH2, and left CH1, then CH1 relay pulse output; if vehicle moves from CH2 to CH1, and left CH2, then CH2 relay pulse output).
	D4->OFF	D1->OFF	
	D5->ON/OFF	D2->ON/OFF	
Mode 2	D3->ON		Direction Detection. (If vehicle moves from CH1 to CH2, and goes in CH2, then CH1 relay presence output; if vehicle moves from CH2 to CH1, and goes in CH1, then CH2 relay presence output).
	D4->ON	D1->ON	
	D5->OFF	D2->OFF	
Mode3	D3->ON		Direction Detection. (If vehicle moves from CH1 to CH2, and goes in CH1, then CH1 relay presence output; if vehicle moves from CH2 to CH1, and goes in CH2, then CH2 relay presence output).
	D4->ON	D1->ON	
	D5->ON	D2->ON	
Mode 4	D3->OFF		CH1 and CH2 are separated presence output.
	D4->OFF	D1->OFF	
	D5->ON/OFF	D2->ON/OFF	
Mode 5	D3->OFF		When vehicle goes in CH1, then CH1 relay is pulse output; When vehicle goes in CH2, then CH2 relay is pulse output.
	D4->ON	D1->ON	
	D5->OFF	D2->OFF	
Mode6	D3->OFF		if vehicle goes in CH1,when left CH1,CH1 relay pulse output; if vehicle goes in CH2,when left CH2,CH2 relay pulse output.
	D4->ON	D1->ON	
	D5->ON	D2->ON	

3. (Switch 1=S1)D6 & D7 & D8 and (Switch 2=S2)D3 & D4 & D5 Setting CH1 and CH2 Sensitivity Selection. (Eight Levels Choices)

S1	S2	Sensitivity (%)							
		0.015(Highest)	0.02	0.04	0.08	0.12	0.2	0.5	0.8(Lowest)
D6	D3	ON	ON	ON	ON	OFF	OFF	OFF	OFF
D7	D4	ON	ON	OFF	OFF	ON	ON	OFF	OFF
D8	D5	ON	OFF	ON	OFF	ON	OFF	ON	OFF

4. (Switch 1=S1)D9 & D10 and (Switch2=S2)D6,D7 Setting Frequency (20 K to 100 KHz).

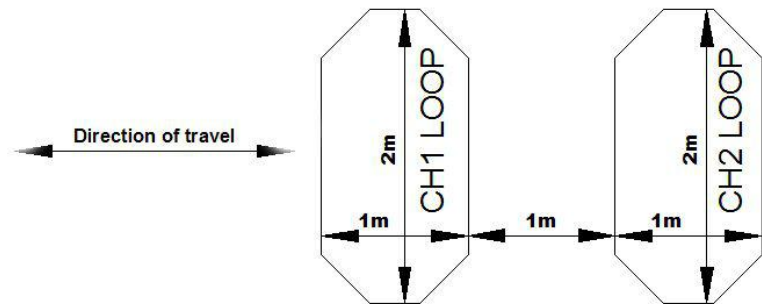
S1	S2	Frequency			
		High	Medium-High	Medium-Low	Low
D9	D6	OFF	ON	OFF	ON
D10	D7	OFF	OFF	ON	ON

\* **Reset Button:** Please note: The LD-200 must be reset every time a setting change is made to the Dip switches.

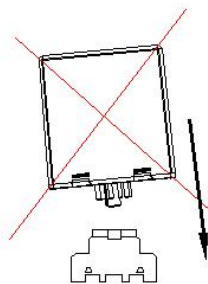
III、 Loop Installation:

1. The loops are sealed using a “quick-set” black epoxy compound or hot bitumen mastic to blend with the roadway surface.

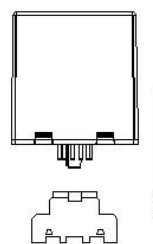
Loop perimeter	Cylinder numbers
3 ~ 4 M	6
4 ~ 6 M	5
6 ~ 10 M	4
10 ~ 20 M	3
20 M ~ UP	2



2. When installation, please keep the product plug and socket in the vertical direction



Wrong installation



The correct installation

#### IV、 Troubleshooting

Symptoms		Solution
If the detector is not working		Press reset
If red led indicator is not fully lit		Check for power supply
If green led indicator:	Blinks slowly	It maybe because the loop is short circuit or the no: of turns is not enough.
	Blinks faster	It maybe because the loop is open or the no: of turns is too many.
If no: of turns is not enough		Lower the frequency (if the frequency is still too high, you must add more turns).
If no: of turns is too many		Higher the frequency (if the frequency is still too low, you must remove some turns).