- **Frequency (DIP Switches 5 & 6)**

When loops are located in close proximity with each other, it is necessary to select different frequencies for each vehicle detector to avoid loop interference or crosstalk.

| **FREQUENCY** | SW5 | SW6 |
|---|---|---|
| HIGH | OFF | OFF |
| MEDIUM HI | ON | OFF |
| MEDIUM LOW | OFF | ON |
| LOW | ON | ON |

## 4. Reset

Whenever detector settings have been changed or the detector has been newly installed, press the reset button. **Note:** this should be done without vehicles present over the loop.

## 5. Connection

Plug in the detector to loop rack (LPR-2), make sure it's secured into connector. Connect loop into designated connector making sure connection is secured. Power LED should be steady GREEN with correct power applied. Green LED turns off 2 minutes after power application or after reset. Pressing the reset will reset detector and reactivate the green LED.

## 6. Fault Conditions

Blinking Green Fault LED indicates a loop problem; a double blink indicates a shorted loop. A single blink indicates an open circuit loop. Check loop connections and test loop with a 'Megger' for leakage to ground.

7. Sensitivity Levels

Medium Low setting will be adequate for most situations. Operate detector at lowest sensitivity levels that detect all desired vehicles. Observe detector operation and adjust the frequency or sensitivity as necessary. Make sure to operate detectors connected to adjacent loops at different frequency settings.

ALL-O-MATIC

# MODEL: PRIME-VD1

## PLUG-IN VEHICLE DETECTOR INSTRUCTIONS

www.allomatic.net

## Quick Loop Tips

1. The loop is one continuous piece of wire that goes from the loop rack connector out to form the desired loop size, around the loop the correct number of times and back to the loop rack connector. The loop wires connect to the loop rack (LPR-2) designated loop connector. It is important that the wires are twisted from where they exit the loop all the way to the connector. If a pre-formed loop is installed and it comes with a jacket (insulator) around both ends of loop wires, it's not necessary to twist the wires (obviously). Also, connections must be made properly (tight connections).

2. A good loop is essential for proper operation from the detector. Request a loop information guide for more details on proper sizes and number of turns.

3. To test the loop, check the insulation resistance to earth. First disconnect the vehicle detector, then using a 'Megger' set to 500 Volts, connect one leg of the loop to one lead of from the 'Megger'. The other lead from the 'Megger' goes to a good ground. The loop should have an insulation resistance to ground of greater than 20MΩ.

4. Generally a loop will detect a vehicle at a height equal to 1/2 to 2/3 the length of the smallest side of the loop. Example: a 4' X 6' loop will detect 2' to 2.5' above the loop wires. Note: This example is 'rule-of-thumb' and site conditions will affect the loops differently.

5. Loop distance from moving gates should be installed at a minimum of 4' away from any moving gate. See gate operators manuals for more details on loop layouts for different types of gates.

## 1. GENERAL DESCRIPTION

**PRIME-VD1** is a plug-in loop detector designed for ALL-O-MATIC LPR-2 loop rack. It offers a solid state detect output that can be inverted with a dip switch for fail-safe or fail-secure. It will operate on voltages 12-24VDC with maximum current requirements of 30mA.

## 2. INDICATORS

- Detect, solid Red during detect or fault.
- Power/Fault Power, solid green with correct power supplied. The Power LED will go out after 2 minutes from power-on or after reset. The Power/Fault green LED will blink with double blink for shorted loop of a single blink for an open circuit loop.

## 3. DIP Switches (SETTINGS)

- Sensitivity (DIP Switches 1 & 2) factory default Medium Low

| **SENSITIVITY** | SW1 | SW2 |
|---|---|---|
| LOW | OFF | OFF |
| MEDIUM LOW | ON | OFF |
| MEDIUM HI | OFF | ON |
| HIGH | ON | ON |

**NOTE: Always use the lowest sensitivity setting that detects all vehicles of interest.**

### • Permanent Presence (DIP Switch 4)

For true permanent presence, DIP Switch 4 must be in ON position. By factory default this switch is ON. If the application requires for other than permanent presence, turn it off for 15 minutes presence.

### • Detect Output (DIP Switch 3)

Detect output can be inverted to be used as safety/reverse loop. For Safety/Reverse loop set the DIP switch 3 to ON position. For Exit and Phantom/Center loops, set DIP Switch 4 to the OFF position.

| **OUTPUT** | SW3 |
|---|---|
| FAIL-SECURE | OFF |
| FAIL-SAFE | ON |