## Truth Tables

Opening gate, A is 1 and closing gate A is 0. Opening gate B is 1 and closing gate B is 0. When the timer is on, it is 1 and when it is off, it is 0. If the timer is 1 and a vehicle is in the sensor range or the A gate is open. If the timer is off and a vehicle is in the sensor range or the B gate is opened. (The presence of a vehicle within the sensor range is 1 and the absence is 0.)

Input-1. sensor

2.timer

Output-1. A gate

2. B gate

|  |  |  |  |
| --- | --- | --- | --- |
| sensor | Timer | A gate | B gate |
| 0 | 0 | 0 | 1 |
| 0 | 1 | 1 | 0 |
| 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 |

## 2.3 K Maps

A gate A

0 1

|  |  |
| --- | --- |
| 0 | 0 |
| 1 | 0 |

0

B

1

B gate

A

0 1

|  |  |
| --- | --- |
| 1 | 0 |
| 0 | 0 |

0

B

1

## 2.4 Circuit Diagrams

