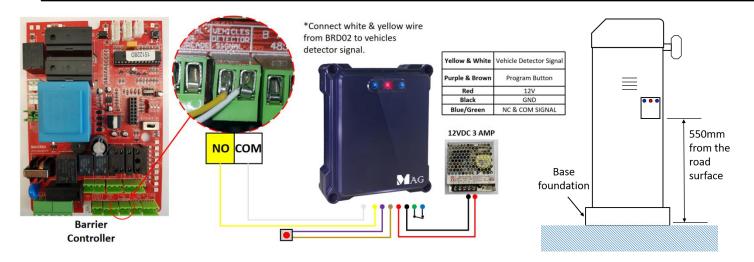
# **BRD02 DualRay Traffic Detector**

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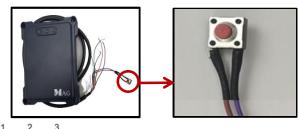


Technical Specification			
Description	Parameter		
Input Voltage	DC 12V, 150 mA		
Detection	Dual lens for 3D detection		
Working Frequencies	24 - 24.5 Ghz		
Modulation Mode	FMCW		
Transmission Power	10 - 15 dBm		
Detection Distance	1 - 6 Meters, <u>+</u> 0.2 meters		
Working Temperature	-40°C - 85°C		
IP Rating	IP 67		
Dimension	115mm (L) x 95mm (W) x 25mm (H)		

### **Installation and Wiring**



### Menu selection



1 2 3

When indicator becomes red, it means Menu. When indicator becomes blue, it means Parameter Setting

Menu No. Reading Method:

1) LED 1 = Menu No. 1

2) LED 2 = Menu No. 2 3) LED 3 = Menu No. 3 4) LED 1 & 3 = Menu No. 4 5) LED 2 & 3 = Menu No. 5 6) LED 1, 2 & 3 = Menu No. 6

Table 1

#### **Setting instruction:**

- 1. Press and hold the button for 3 seconds.
- 2. The red light will be blinking from left to right.
- 3. Let go the button when the blinking LED is the menu you desired. (Refer to Table 1)
- 4. The LED will turn blue once in the parameter setting.
- 5. Adjust setting by using the button.
- 6. After done, press and hold the button until all red LED flash then let go the button, it will automatically save and exits the menu.
- 7. Once complete only red light LED 2 will remain ON.

\*(Note: After done any setting, it must be saved; otherwise the setting will not change and the detector will automatically exit the menu setting after 10 seconds)

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## **Function Parameter Setting and Description**

#### **Traffic Detector Parameter Setting**

Menu No.	Parameter Setting	Remark	Default Value
LED 1	Set maximum detection distance	Accumulate 0.5m each time	2.5 meters
LED 2 Detection sensitivity		1 : Low / 2 : Medium / 3 : High	2

### 1) Detection distance

- Default distance is 2.5 meter.
- When detection distance is 1 meter, Blue light LED 1 is Hold.
- When detection distance is 1.5 meter, Blue light LED 1 is blinking
- The longer the detection distance, the more LED will turn on. (Refer to Table 2)

4 Meter ————	——→I
ARM	
3.5 Meter	*Detection range recommend to be set 0.5Meter less then barrier arm length.

LED Indicator	Distance (meter)	Blue LED Status	LED Indicator	Distance (meter)	Blue LED Status
LED 1	1.0	Hold	LED 1 & 3	4	Hold
LED 1	1.5	Blinking	LED 1 & 3	4.5	Blinking
LED 2	2.0	Hold	LED 2 & 3	5	Hold
LED 2	2.5	Blinking	LED 2 & 3	5.5	Blinking
LED 3	3.0	Hold	LED 1, 2 & 3	6	Hold
LED 3	3.5	Blinking			

Table 2

#### **Setting instruction:**

- 1. Press and hold the button to enter Menu 1. (Refer to Table 1)
- 2. When the LED 1 red light is on. Let go the button.
- 3. Press the button to set the distance.(Refer to Table 2)
- 4. After select distance. Press and hold the button, all 3 LED red light start blinking.
- 5. After setting is done only LED 2 red light will on.

\*(Note: Make sure detection range is 0.5 meter less then the actual arm length)

### 2) Detection sensitivity

- Default sensitivity is medium.
- When sensitivity is medium, LED
  2 blue light is Hold.
- Higher sensitivity, different LED will turn on from LED 1 to 3.

LED Indicator	Sensitivity	Blue LED Status
LED 1	Low	Hold
LED 2	Medium	Hold
LED 3	High	Hold

Table 3

#### **Setting instruction:**

- 1. Press and hold the button to enter Menu 2. (Refer to Table 1)
- 2. When the LED 2 red light is on. Let go the button.
- 3. Press the button to adjust the sensitivity. (Refer to Table 2)
- 4. After selecting sensitivity, press and hold the button until all 3 LED red light start blinking.
- After setting is done only LED 2 red light will on.

### 3) Compulsory Reset & Update Background Calibration

It is compulsory to perform background calibration for BRD02 DualRay to learn the new ambient environment to ensure accurate detection.

#### **Setting instruction:**

#### **Update Background and Reset Default Parameter Setting:**

- 1. Press and hold the program button to enter Menu 2. (Refer Table 1, Page 1)
- 2. When the LED 2 red light is on. Let go the program button.
- 3. Press the program button until all 3 LED blue light start blinking then press and hold the program button.
- 4. When all 3 LED red light start blinking let go the program button.
- 5. After setting is done only LED 2 red light will on.
- Before perform the Reset & Update Background calibration, make sure there is no object within the detecting range of the traffic detector.

# SPECIAL NOTE

- \* Make sure to use low noise power supply.
- \*Only install the BRD02 Dual Ray on flat surface and do not install it in front uneven road surface.
- \*For fence arm barrier setting, please refer to full installation manual.
- \*For full installation manual and setting, please scan the QR Code beside.



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<sup>\*(</sup>Note: For Trucks or High Base Vehicle Please set sensitivity to High and refer to the installation manual for more information.)