



Parking Alert Signs

Engineered safety systems for you parking facilities

www.passsigns.com 480-689-1993



Applications:

- ◆ Activating Parking Alert Signs for vehicles
- ◆ Activating roll-up doors, barriers, and gates
- ◆ Activating Parking Alert Signs for pedestrians
- ◆ Activating alarms
- ◆ Activating light control systems
- ◆ Wrong-way vehicle traffic
- ◆ Wrong-way pedestrian traffic

Start up takes 30 seconds

Green LED - Detection of Vehicle

Red LED - Detection of Pedestrian

****Ceiling mounting:** turn back bracket over, see page 3.

Important please read - Black and Brown look very similar. Please use **ONLY** black on power supply. Brown will **SHORT** your power supply. Brown is rarely used and can be cut off if not used.

	Sensor Wire	Function	Pass Signs Control Board Connection
Vehicle Detection	Red	V+ (12-36V)	12V+ Out
	Black	V- (12-36V)	12V- Out
	White	Relay 1 NO	Trigger1
	Yellow	Relay 1 COM	Trigger1
	Brown	Relay NC	
Pedestrian Detection	Blue	Relay 2 NO	Trigger1
	Green	Relay 2 COM	Trigger1
	Gray	Relay NC	

Quick Sheet & Manual

Vehicle Motion Detector - DECIDER2

Part Number: PS-VMD-DL DECIDER2

Used to detect motion in an area from 10'x10' to 21'x28' in front of the motion.

Direction Recognition from sensor:	Mode 1: Motion forward Mode 2: Motion backwards Mode 3: Motion in both directions
Mounting Height:	6ft ~ 28ft
Mounting Type:	Wall or Ceiling, 0° to 90°
Detection Area:	Min 10ft(w) x 10ft(d) at 6ft height Max 21ft(w) x 28ft(d) at 28ft height
Relay Info	Holding time - .2, .5, 1, 2, 5 secs 24VDC@1.0A 125VAC@0.5A

Function 1: Directional Logic Vehicle Motion Detection

Detects **ONLY** cars and **ONLY** in a single direction. This prevents false detection from pedestrians walking through the area and vehicles traveling in the opposite direction.

Vehicle Applications:

- Activating vehicle exit signs
- Activating ramp warning signs
- Activating traffic control systems
- Opening garage or roll-up doors

Function 2: Directional Logic Pedestrian Motion Detection

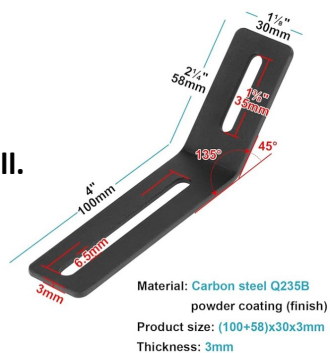
Detects **ONLY** pedestrians and **ONLY** in a single direction. This prevents false detection from pedestrians walking opposite direction or crossing the zone.

Pedestrian Applications:

- Activating pedestrian detection systems
- Activating storefront automatic doors
- Activating crosswalk systems

Application technology	Doppler radar
Transmission frequency	24.125GHz
Transmission power	<20dBm
Detection speed	2.0in/s – 15.5mph
Operation current	<100mA
Power frequency	50Hz
Temperature range	-22 °F ~ + 140 °F
Relative humidity	0% to 95%, no condensation
Protection grade	IP65
Relay output	24VDC@1.0A 125VAC@0.5A
External dimensions	6.46in x 4.37in x 3.72in
Cable length	23ft
Sensor weight	1.5lbs

Sidewall mounting bracket. Can be bent additionally (if needed) once secured to the wall.



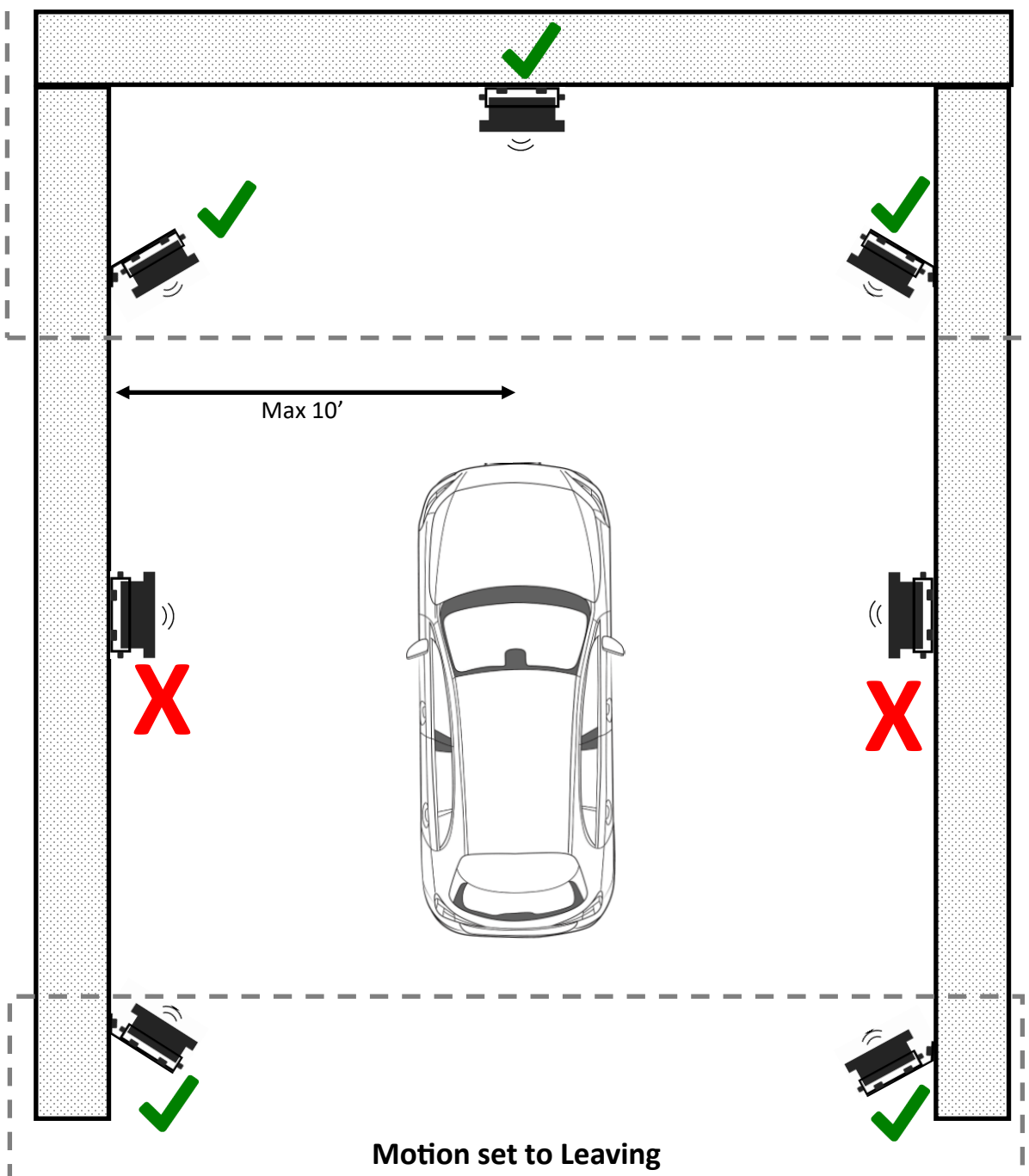
Without
sidewall bracket



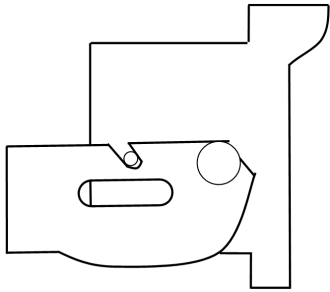
With sidewall
bracket



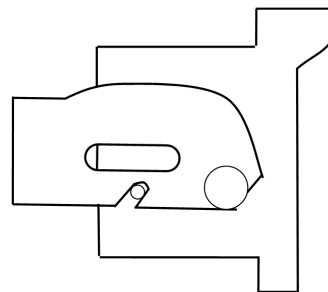
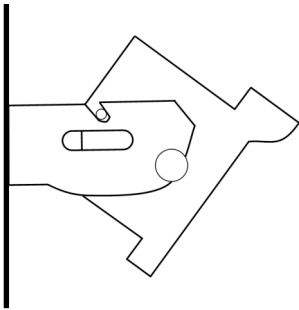
Motion set to Approaching (Default)



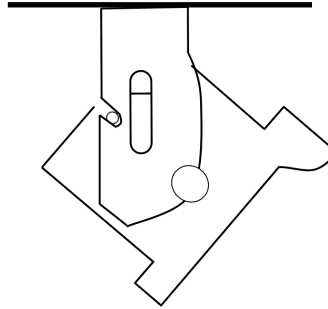
Bracket placement proper mounting



WALL MOUNTING:
Ensure the curved side of the bracket is pointing toward the ground.

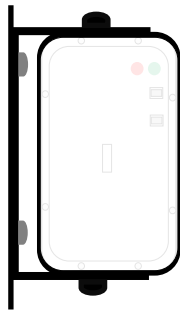


CEILING MOUNTING:
Remove the bracket and flip upside down.
Maximum mounting height 25'.



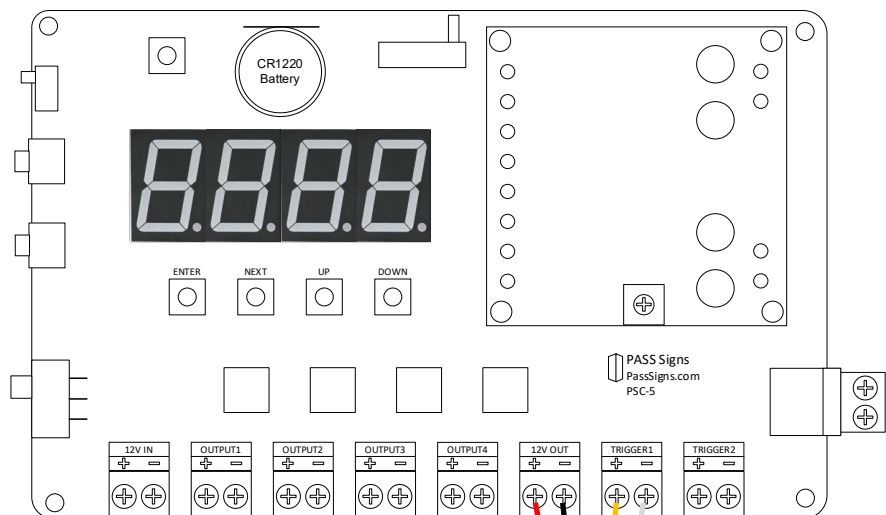
DO NOT MOUNT SIDWAYS.

Results will be poor for detection



Wiring & Connections to PASS Signs Controller
(see page 3 for terminations)

	Sensor Wire	Function	Pass Signs Control Board Connection
Vehicle Detection	Red	V+ (12-36V)	12V+ Out
	Black	V- (12-36V)	12V- Out
	White	Relay 1 NO	Trigger1
	Yellow	Relay 1 COM	Trigger1
Pedestrian Detection	Brown	Relay 1 NC	
	Blue	Relay 2 NO	Trigger1
	Green	Relay 2 COM	Trigger1
	Grey	Relay 2 NC	



Vehicle Detection

Pedestrian Detection

← White



Programming using the Decider2-REM programming remote (sold separately)

Entering Programming Mode:

- 1) You MUST power down the Decider2 motion detector before programming when:
 - When the motion detector has been powered on for more than 30 minutes
 - Or you have exited programming mode by using A4 on the remote
- 2) Turn on the ON switch on top of the remote
- 3) Point the remote at the front of the motion detector when programming
- 4) Press and hold START until the button illuminates solid, if the START light flashes you are not connecting with the motion detector

Exiting Programming Mode:

To exit program mode type A+4 into the remote or just power down the remote. The Decider2 will exit program mode after 30 minutes.

Defaulting the Decider2 Motion Detector

Recommended: If the motion detector is not performing well, or if you feel programming is incorrect, then default the settings to start over. Enter programming and press Key Code A+9. You will receive 6 red flashes on the motion detector.

Reading a current setting of a Parameter

To read the current setting of a parameter just simply type in the Key Code for that parameter. The responding LED will light up of the current setting. Check the LED number against the chart below. Example: Enter programming and type Key Code F+4, the default of F+4 is 4. If you type a different number at this point, you will be Changing a current setting of Parameter.

Changing a current setting of a Parameter

To change the current setting of a Parameter you simply type in the Key Code of the parameter, then type in the new setting number. It will immediately save. Example: You want to change Installation Height F+4 from the default setting 4 (15ft-18ft / 5m-6m) to setting 1 (6ft -9ft / 2m-3m). Begin by Enter programming, type Key code F+4+1. The 1 will now stay lit. To verify the setting, once again type F+4, and this time the 1 will be illuminated to show the new setting.

Parameter	Key Code	Default Setting	Description
Installation Height of Decider2	F+4	4	1: 6ft -9ft / 2m-3m 2: 9ft-12ft / 3m-4m 3: 12ft-15ft / 4m-5m 4: (DEFAULT) 15ft-18ft / 5m-6m 5: 18ft-21ft / 6m-7m 6: 21ft-24ft / 7m-8m 7: 24ft-27ft / 8m-9m
Operation Mode	E+2	4	1: (DEFAULT) Standard all object detection, distinguish between vehicles (Relay 1) and pedestrians (Relay 2) 2: Standard vehicle only detection (Relay 1) 3: Standard pedestrian only detection Relay 2) 4: Standard detection all objects (Relay 1)
Detection Area	D	4-6	1-3: Narrowest range of detection area - 10ft wide 4-6: (DEFAULT) Medium range of detection area - 15ft wide 7-9: Widest range of detection area - 21ft wide
Relay Holding Time	F+1	4	1: 0.2s 2: .5s 3: 1s 4: (Default) 2s 5: 5s
Detection direction	E+1	1	1: (DEFAULT) Approaching the sensor will trigger 2: Moving away from the sensor will trigger 3: Bi-directional detection will trigger
Cross-traffic motion detection filter	F+5	1	Filters side motion: 1 = close, 2-5 = low, 6-9 = high (use if cross traffic is triggering the motion)
Wide Detection Area	B	1	1: (DEFAULT) Close 2: Open
Test Relay	A+1	1	1: (DEFAULT) Both relays return to normal 2: Pedestrian Relay is active 3: Vehicle Relay is active
Exit Configuration Mode	A+4	-	Exit Programming Mode
Reset	A+9	-	Default the unit back to factory standards
Anti-Interference Function	F+6	1	1: (DEFAULT) Off 2: ON Do not turn on unless it appears the motion is picking up false signals and triggering incorrectly

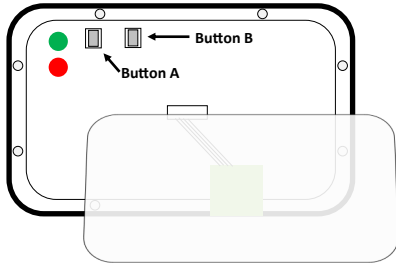
Programming Settings:

IMPORTANT NOTE: The DEFAULT settings typically work well for most applications.

Description: There are 2 levels of programming. - BASIC and ADVANCED settings.

PROGRAMMING STEPS:

Power up the unit and remove the (8) screws of the front cover and find the (2) programming buttons (A & B) in top left of the inside of the unit.



To enter **BASIC** settings: Press **A & B** for 2 seconds until the GREEN LED flashes once, then release buttons.

To enter **ADVANCED** settings: Press **A & B** for 4 seconds until the RED LED flashes once, then release buttons.

Use the **A** button to increase the value of the individual settings.

Use the **B** button to move through the setting groups.

To exit out of programming, press **A & B** quickly and release.

To default programming, press **A & B** for 8 seconds until RED & GREEN flash once, then release.

BASIC settings

Setting Group	Green LED will flash	Setting description Red LED will flash the # of the settings	
Operation Mode	1	1: Standard, movement detection of all objects 2: Medium speed, detection of all objects 3: High speed, detection of all objects 4: Detect low speed movement of all objects 5: (DEFAULT) Standard, distinguish between pedestrians and vehicles 6: Medium speed, distinguish between pedestrians and vehicles 7: High speed, distinguish between pedestrians and vehicles 8: Low speed, distinguish between pedestrians and vehicles	
Install Height	2	1: 6ft -9ft / 2m-3m 2: 9ft-12ft / 3m-4m 3: 12ft-15ft / 4m-5m 4: (DEFAULT) 15ft-18ft / 5m-6m	5: 18ft-21ft / 6m-7m 6: 21ft-24ft / 7m-8m 7: 24ft-27ft / 8m-9m
Relay Operations	3	1: (DEFAULT) Standard all object detection, distinguish vehicles (Relay 1) and pedestrians (Relay 2) 2: Standard vehicle only detection (Relay 1) 3: Standard pedestrian only detection Relay 2) 4: Standard detection all objects (Relay 1)	5: Not used 6: High Speed doors, vehicle only (Relay 1) 7: High Speed doors, pedestrian and vehicles (Relay 1) 8: High Speed doors, distinguish vehicles (Relay 1) and pedestrians (Relay 2)
Detection Area	4	1-3: Narrowest range of detection area - 10ft wide 4-6: (DEFAULT) Medium range of detection area - 15ft wide 7-9: Widest range of detection area - 21ft wide	

ADVANCED settings

Setting Group	Green LED will flash	Setting description Red LED will flash the # of the settings	
Relay Holding Time	1	1: 0.2s 2: .5s 3: 1s 4: (Default) 2s 5: 5s	
Direction detection and triggering	2	1: (DEFAULT) Approaching the sensor will trigger 2: Moving away from the sensor will trigger 3: Bi-directional detection will trigger	
Filter side to side movement (lateral)	3	1: Close 2-3: Low 4-5: (DEFAULT) Medium 7-9: High (Higher the number less detection of side to side movement.	
Wide detection area	4	1: (DEFAULT) Close 2: Open	
Slow motion detection level	5	1: (DEFAULT) Close slow motion detection 2-5: Close to Low Sensitivity 6-9: Med to High Sensitivity	
Slow motion detection area	6	1: (DEFAULT) Small detection area 2-5: Medium detection area 6-9: Wide detection area	
Anti-Interference if cross-talking doppler	7	1: (DEFAULT) Off 2: ON Do not turn on unless it appears the motion is picking up false signals and triggering incorrectly	