



OPERATION GUIDE



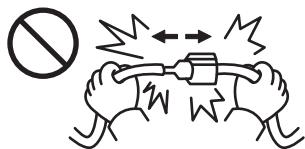
PBS-MW01
BLIND SPOT DETECTION SYSTEM

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1. WARNING

1. THE BLIND SPOT DETECTION SYSTEM DOES NOT REPLACE ANY FUNCTIONS DRIVERS SHALL ORDINARILY PERFORM IN DRIVING A MOTOR VEHICLE, NOR DOES IT DECREASE THE NEED FOR DRIVERS TO STAY VIGILANT AND ALERT IN ALL DRIVING CONDITIONS, TO OBEY ALL THE SAFE DRIVING STANDARDS, PRACTICES, TRAFFIC RULES AND REGULATIONS.
2. ECHOMASTER DOES NOT GUARANTEE 100% ACCURACY IN THE DETECTION OF VEHICLES OR PEDESTRIANS, AND THEREFORE DOES NOT GUARANTEE THE PERFORMANCE OF ANY RELATED AUDIO OR VISUAL WARNING SIGNALS. FURTHERMORE, ROAD, WEATHER AND OTHER CONDITIONS MAY ADVERSELY AFFECT THE VEHICLE'S BLIND SPOT DETECTION SYSTEM RECOGNITION AND RESPONSE CAPABILITIES.
3. CAREFULLY READ THIS OPERATION GUIDE AND ITS IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS PRIOR TO INSTALLING OR USING THE BSD SYSTEM.
4. IT IS RECOMMENDED THAT THE INSTALLATION BE CARRIED OUT BY QUALIFIED PERSONNEL.

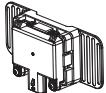
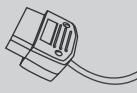


Do not pull the connectors with excessive force.



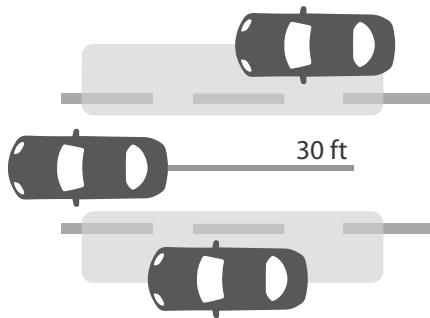
Do not pull the harness with excessive force.

2. SYSTEM CONTENTS

No.	ITEM	Qty	PICTURE
1	Right Blind Spot Sensor	1	
2	Left Blind Spot Sensor	1	
3	Control Unit	1	
4	Right Indicator	1	
5	Left Indicator	1	
6	Buzzer	1	
7	Power Button	1	
8	Harness Set	1	
9	OBD II Cable	1	
10	Manual Set/Accessories	1	

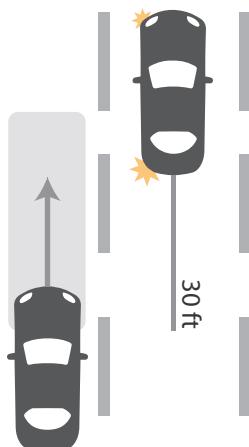
3. INTRODUCTION

The Blind Spot Detection System is designed to aid in detecting vehicles that may have entered the vehicle's blind spot zone, which is represented by the vehicles in the diagram below. The detection area is on both sides of your vehicle, extending rearward from the vehicle to approximately 30 feet beyond the bumper. The system is designed to alert you of vehicles, which will not allow for a safe lane change.



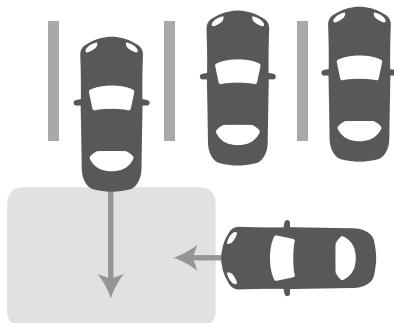
4. LANE CHANGE ALERT

Lane Change Alert is activated when the turn signals are used to make a lane change and when the vehicle speed exceeds 15 MPH. The warning zone of the system covers left and right adjacent lanes with an estimated impact in less than 2 seconds. An audible tone will be heard and the warning indicator lamp with the corresponding turn signal will flash when a vehicle is within the warning zone or if there is a vehicle detected approaching at high speeds resulting in an impact of less than 2 seconds during the lane change.



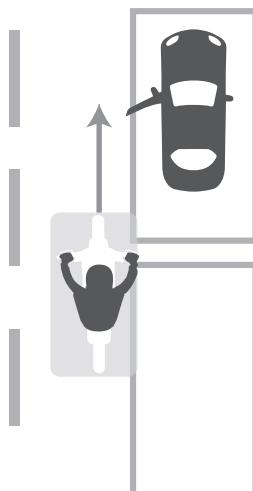
5. REAR CROSS TRAFFIC ALERT

The Rear Cross Traffic Alert (RCTA) is activated when the vehicle is placed in 'reverse'. An audible tone will be heard and the corresponding warning indicator lamp will flash when a pedestrian or vehicle is detected approaching and resulting in an impact of approximately 2 seconds. The system is capable of monitoring the rear cross traffic zones up to a 60 ft range.



6. DOOR OPEN WARNING

DOW is activated when under two conditions; when the engine is on and the hazard indicators are activated, and five minutes after stopping the engine. An audible tone will be heard and the warning indicator lamp with the corresponding turn signal will flash when an object or vehicle is within the warning zone or if there is a vehicle detected approaching at high speeds resulting in an impact of less than 2 seconds



7. SYSTEM SPECIFICATIONS

No.	ITEM	SPECIFICATIONS
1	Operating Temperature	-40°C ~ +85°C
2	Storage Temperature	-40°C ~ +90°C
3	Environmental Protection Level	Radar : IP67
4	Input Voltage Range	12V(9V ~ 16V)
5	Current Consumption	500mA@12V ; 6.0W
6	Alarm Level	Level I : LED On (Constant) Level II : LED Flash+Buzzer On
7	Accuracy of Alarm	Vehicle: >99%
8	Specifications	ISO 17387/ISO 16750
9	Radiation Regulations	FCC / NCC / VSCC
10	Buzzer	75dB
11	Warning Light	5V Drive, A Pillar

8. OPERATION

Indicator

① Left Side Blind Spot Indicator



② Right Side Blind Spot Indicator



③ POWER button



System Power

1. The system will automatically activate when the ignition is turned on. The warning indicator lamps ① ② illuminate for 3 seconds during startup.
2. The system may be deactivated by pressing and holding the POWER button ③ for 3 seconds, the indicator lamps ① ② will blink twice to confirm.
3. The system may be reactivated by pressing and holding the POWER button ③ for 3 seconds, the indicator lamps ① ② will illuminate for 3 seconds to confirm.

System Activation

1. Start vehicle.
2. Indicator lamps ① ② will illuminate for 3 seconds to confirm activation and run self-diagnostics.
3. If there are errors, the system will flash the indicator lamps ① ② and sound tones to indicate the problems. Please use the TROUBLESHOOTING section for more help.
4. The Blind Spot Detection System will turn on when you start the engine and begin driving forward above approximately 15mph.

Blind Spot Indicator Lamps

1. The left indicator ① will illuminate when a vehicle is in your left blind spot while driving. This indicator will flash and an audible tone will sound when your left turn signal is activated while there is a vehicle in the left blind spot.
2. The right indicator ② will illuminate when a vehicle is in your right blind spot while driving. This indicator will flash and an audible tone will sound when your right turn signal is activated while there is a vehicle in the right blind spot.

9. ERROR DIAGNOSTICS

It is possible that the Blind Spot Detection System will trigger an alert even though there is no vehicle in the blind spot zone. The Blind Spot Detection System can detect objects such as: construction barrels, guard rails, lamp posts, etc. Occasional false alerts are normal.

STATUS	SOUND
Controller HMI CAN TX Failed	Do Re Mi
Radar System Error - Master	Do Re Mi
Sleep Mode	1 second beep, stop .5 second & 1 second beep
System Initialization	3 second beep

10. TROUBLESHOOTING

ISSUE	SYMPTOM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Power On Self-test	The system does not respond after starting the engine	Incorrect connection or control unit failure	Confirm that the IGN, wiring, fuse, and controller are connected
	The indicator does not light up	Damaged indicator	Contact your dealer
		Disconnected indicator	Verify connection
	The buzzer makes no sound	Damaged buzzer	Contact your dealer
		Disconnected buzzer	Verify connection
System Operation	The power switch does not work	Damaged power switch	Contact your dealer
		Disconnected power switch	Verify connection, press and hold the switch for 2 seconds
System Operation	[Do Re Mi] alarm	Radar disconnection or no OBD connection	Abnormal power supply, wiring, or radar, please contact your dealer
	Did not enter sleep mode after 5 minutes of IGN off	IGN lead connected to constant power	Change the IGN to a switched power source connection location
Functions	No Level 1 BSD alert	Vehicle speed is less than 12 mph	Normal operation.
		Bad connection from OBDII	The vehicle is not compatible. Please contact the dealer
	No Level 2 BSD alert	Turn signal leads not connected	Press the RESET button on the control unit after starting the engine. Check the system again after the reboot is completed.
	No RCTA alert	Reverse lead not connected	Confirm that the reverse lead is connected



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