



INSTALLATION GUIDE

BLIND SPOT DETECTION SYSTEM: FOR MOTORCYCLES

CONTENTS

1. WARNING	1
2. SYSTEM CONTENTS	2
3. SYSTEM SPECIFICATIONS	3
4. SYSTEM LAYOUT	3
5. INSTALLATION	4
5.1 TOOLS REQUIRED	4
5.2 SYSTEM BLOCK	4
5.3 INSTALLATION	5
6. ERROR DIAGNOSTICS	10
7. TROUBLESHOOTING	11

1. WARNING

1. THE MOTORCYCLE BLIND SPOT DETECTION SYSTEM DOES NOT REPLACE ANY FUNCTIONS OPERATORS SHALL ORDINARILY PERFORM IN OPERATING A MOTOR VEHICLE, NOR DOES IT DECREASE THE NEED FOR RIDERS TO STAY VIGILANT AND ALERT IN ALL RIDING CONDITIONS, TO OBEY ALL THE SAFE RIDING STANDARDS, PRACTICES, TRAFFIC RULES AND REGULATIONS.
2. CUB DOES NOT GUARANTEE 100% ACCURACY IN THE DETECTION OF VEHICLES OR PEDESTRIANS, AND THEREFORE DOES NOT GUARANTEE THE PERFORMANCE OF ANY RELATED PHYSICAL 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 INSTALLATION 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.



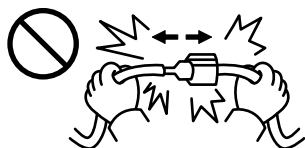
Wear proper protective gear



Deburr edges and use grommets



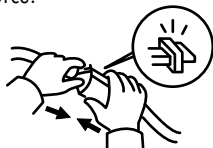
Use appropriate torque to fasten



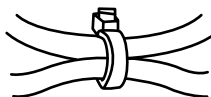
Do not pull the connectors with excessive force.



Do not pull the harness with excessive force.

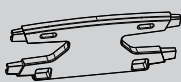
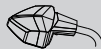
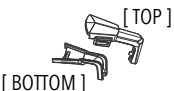


Fasten all connectors and terminals securely.



Stress relieve harnesses and secure properly.

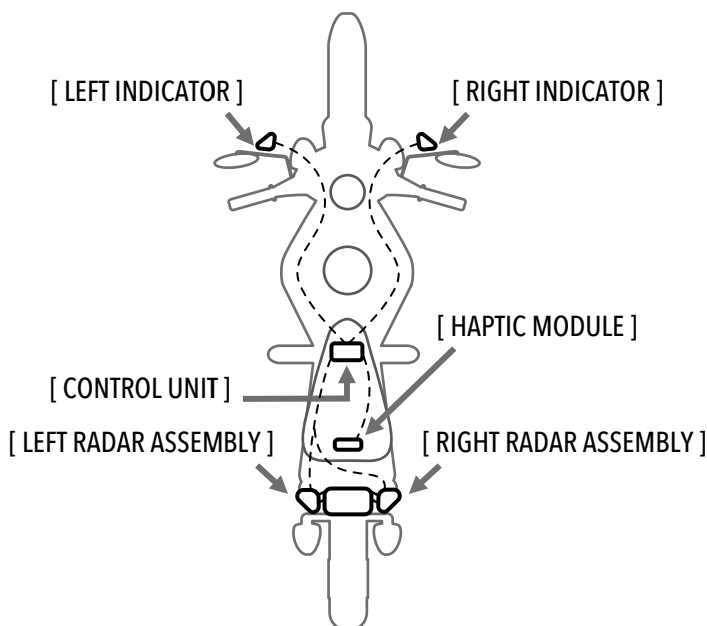
2. SYSTEM CONTENTS

No.	ITEM	Qty	PICTURE
1	Right Radar Assembly	1	
2	Left Radar Assembly	1	
3	Main Bracket	1	
4	Extension Bracket	2	
5	Rotation Shaft Cover	2	
6	Right Indicator	1	
7	Left Indicator	1	
8	Indicator Angle Cover Set	2	
9	Control Unit	1	
10	Haptic Module	1	
11	Harness Set	1	
10	Manual Set/Accessories	1	

3. SYSTEM SPECIFICATIONS

No.	ITEM	SPECIFICATIONS
1	Operating Temperature	-40°C ~ +80°C
2	Storage Temperature	-40°C ~ +90°C
3	Environmental Protection Level	IP67
4	Input Voltage Range	9V - 16V, 12V (Typical)
5	Current Consumption	<1050mA ± @12V
6	Alarm Level	Level I : Indicator On - Solid Level II : Indicator Blinking + Vibrate
7	Specifications	ISO 16750
8	Radiation Regulations	FCC / NCC

4. SYSTEM LAYOUT



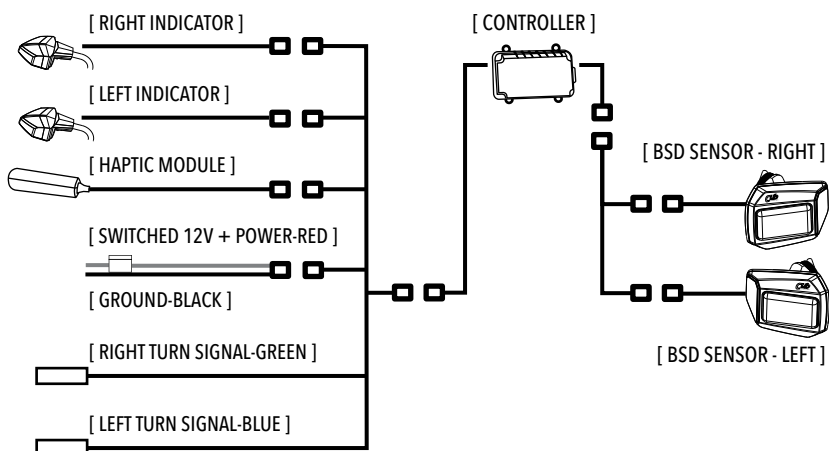
5. INSTALLATION

5.1 TOOLS REQUIRED

<i>Painter's Tape</i>	<i>Philips & Flathead Screwdrivers</i>	<i>Sockets & Wrenches</i>
<i>Plastic Pry Bars</i>	<i>Surface Cleaner (i.e. rubbing alcohol)</i>	<i>Rags</i>
<i>Tape Measure</i>	<i>Level</i>	<i>Pliers & Cutters</i>
<i>Electric Drill</i>	<i>Torque Wrench</i>	

1. Look for and use grommets for vehicle access to avoid drilling holes.
2. Ensure all harnesses are fully connected and locked in.
3. Use cable ties to fasten harness while installing.
4. Take caution to ensure corresponding colored connectors are connected.

5.2 SYSTEM BLOCK

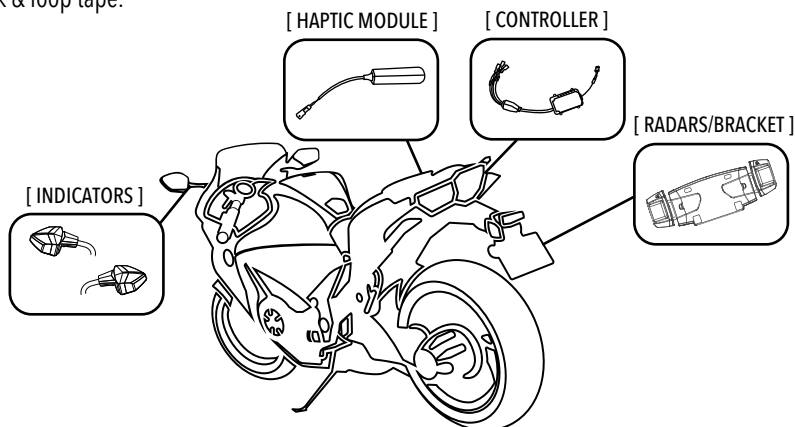


5. INSTALLATION

5.3 INSTALLATION

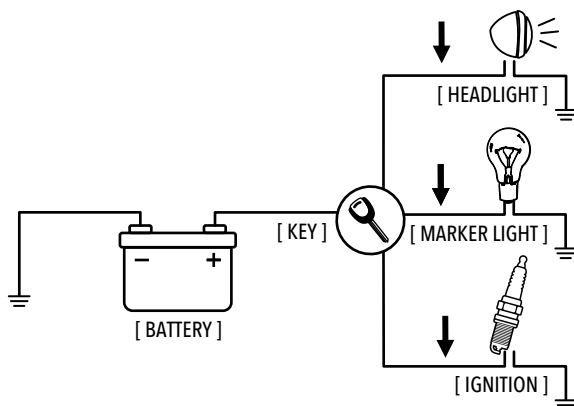
1. INSTALL THE CONTROLLER

Locate a suitable location for the controller to be stored or mounted. All of the components will be connected to this module, ensure that it is placed in an accessible location. Common locations are inside fairings, storage compartments and under the saddle. Keep the controller away from excessive heat, vibration and impact. Secure the controller with tie wraps and/or hook & loop tape.



2. CONNECTING THE POWER CONNECTIONS

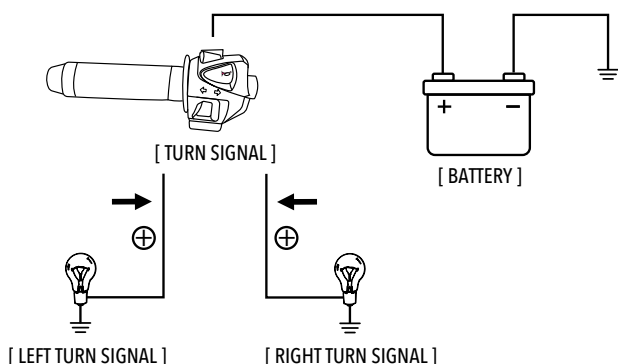
Use a quality voltmeter to locate a switched 12 volt (+) power source, this is a power source which is automatically controlled via ignition power. Common locations are at the fuse box, control modules, marker lights or the headlight. Connect the [RED] positive lead to this switched power source, splice connectors are supplied in the kit for your convenience. Connect the [BLACK] negative lead to a chassis ground or the negative terminal of the battery.



5. INSTALLATION

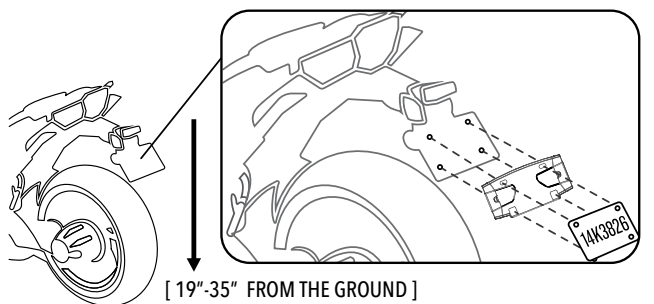
3. CONNECTING THE LEFT AND RIGHT TURN SIGNALS

Use a quality voltmeter to locate the positive (+) left and right turn signal leads. Connect the [BLUE] lead to the LEFT turn signal lead, and the [GREEN] lead to the RIGHT turn signal lead. Splice connectors are supplied in the kit for your convenience.



4. INSTALL THE MAIN BRACKET

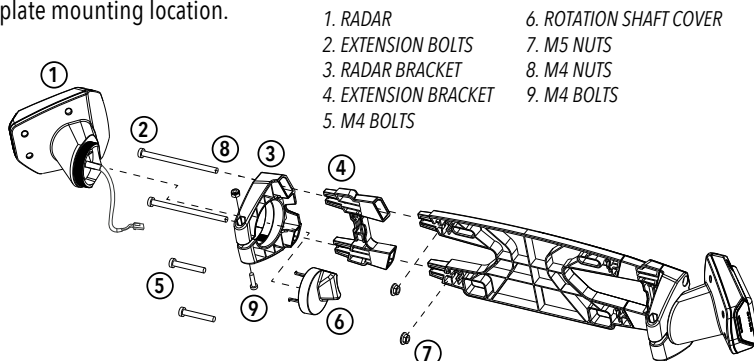
The main bracket is to be installed at the license plate mounting location. Remove your license plate and determine the orientation necessary for your vehicle. Position the bracket so that there is sufficient clearance to mount the radar assemblies. The radar should be mounted away from and protected from hot exhaust gases. The bracket must be located in the center of the vehicle, between 19 and 35 inches from the ground.



5. INSTALLATION

Typically motorcycles without luggage will use the bracket oriented with the radar assemblies "inward", vehicles equipped with luggage typically will use the bracket oriented with the radar assemblies "outward". There are extension parts included in the kit that may need to be used in order to provide sufficient clearance for specific applications. Use the supplied hardware to affix these parts.

Reinstall the license plate with the bracket between the license plate and the original license plate mounting location.

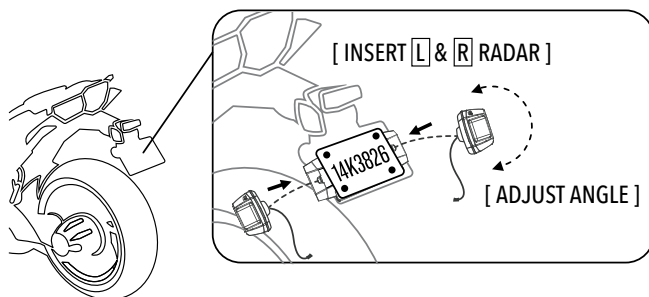


5. INSTALL THE RADAR ASSEMBLIES

The radar assemblies are to be installed onto the mounted Main Bracket. The radar must be rotated and positioned to be perpendicular to the ground. Use a level to determine the correct angle (90° from the ground) while the vehicle is in its upright riding position. Secure the radar units by tightening the fasteners on the Radar Bracket.

Once the radar units are mounted to the bracket securely, make the connections to the radar units and route the cables to the Controller utilizing tie wraps and tape to secure the harness properly.

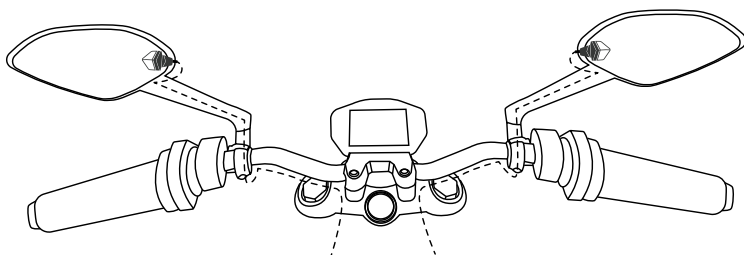
Affix the rotation shaft cover to conceal the cable.



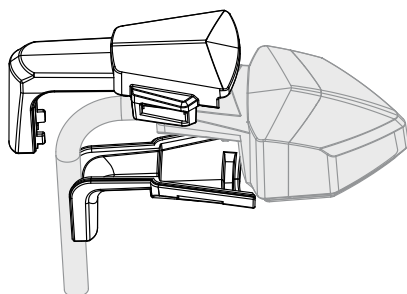
5. INSTALLATION

6. INSTALL THE INDICATOR LAMPS

The indicator lamps should be installed in a location visible to the operator in a typical riding position. Common locations are the mirrors and master cylinder reservoirs. Ensure the surface is clean and dry, peel off the backing from the rear of the indicator then adhere it on the desired location. Route the cables to the control unit and connect them, ensure there is sufficient slack for movement but not excessive enough to get caught during operation. Secure the cables with a tie wraps and tape to conceal and protect them.



Affix the indicator angle covers if a 90° angle is desired to conceal wires.



5. INSTALLATION

7. INSTALL THE HAPTIC MODULE

The haptic module is a vibration unit to be installed under the operator's saddle or seat. Install the haptic module by inserting it in the seat foam or affixing it to the bottom of the saddle. Each application will require a unique installation method, take care to not damage the saddle or seat during this process. It is recommended to locate the unit directly under the rider while in a typical riding position. Once a suitable location is determined and the haptic module is affixed, route the cable to the Controller and connect it. Secure loose cable with tie wraps and tape, ensure the cable will not be subjected to excessive heat or vibration. Check for sufficient clearance so that the haptic module and cable will not be damaged.

8. FINAL INSPECTION

Once all connections are made, there will be no excess or unoccupied connections. Visually inspect all cables and connections to ensure they are tight and secured. Move the handlebars and other moving parts on the vehicle to ensure that there is no interference or binding. After verification of all mechanical points, turn the vehicle key to the ON position so that the system is powered. The indicator lamps will illuminate, and the haptic module will activate. If there is a system error, the indicators will light up constantly then flash a sequence for troubleshooting. If there are no errors, carefully conduct a test ride.

6. 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	INDICATOR
Abnormal System Condition	3 flashes
Normal System Initialization	3 second solid illumination

7. TROUBLESHOOTING

ISSUE	SYMPTOM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Power On Self-test	The system does not respond after starting the engine/turning key on	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 seat vibrator does not vibrate	Damaged vibrator	Contact your dealer
		Disconnected vibrator	Verify connection
System Operation	Indicators flash 3 times after system powers up	Radar(s) or ECU fault	Abnormal power supply, wiring, ECU or radar, please contact your dealer.
Functions	No Level 1 BSD alert	Radar(s) are not properly positioned	Adjust the radar location and angle according to the instructions
		Targets are insufficient in size	Normal Operation
		Targets are not in the detection area	Normal Operation
	No Level 2 BSD alert	Turn signal leads not connected	Confirm turn signal leads are connected
		Turn signal lead connection polarity not correct	Turn signal inputs require positive 12V+, use relays or transistors.



250 Benton Ct, City of Industry, CA • 714.784.6687 • www.motorcycleblindspot.com • cs@novusradar.com
