

ROSS TROUBLESHOOTING

ROSS ACTIVATION TABLE:

<u>AUDIBLE TONE</u>	<u>VISUAL RESPONSE</u>	<u>EVENT</u>
NONE	SOLID GREEN LED	SENSOR ACTIVATED
NONE	FLASHING GREEN	SENSOR INITIALLY DETECTS MOVEMENT
SLOW BEEPING	FLASHING AMBER	FIRST DETECTABLE ZONE
FAST BEEPING	FLASHING RED	SECOND DETECTABLE ZONE
CONTINUOUS	SOLID RED	FINAL DETECTABLE ZONE

PROBLEM

**NO LED DISPLAY,
OUTPUT ONLY**

**NO AUDIO OUTPUT, LED
DISPLAY ONLY**

**NO LED DISPLAY OR AUDIO
OUTPUT**

CHECK THE FOLLOWING

1. REPLACE LED STRIP

1. REPLACE AUDIO CONTROL UNIT

1. MAKE SURE AUDIO CONTROL
HARNESS IS CONNECTED.

2. USE A VOLTMETER TO TEST FOR AT
LEAST +3 VOLTS AT THE TERMINAL
OF THE AUDIO CONTROL HARNESS
(WHITE AND PURPLE WIRES).

No LED DISPLAY OR AUDIO

3. VERIFY SYSTEM POWER AND GROUND CONNECTIONS
 - USE A VOLTMETER TO TEST FOR AT LEAST +9 VOLTS AT THE POWER CONNECTION (BLUE WIRE).
 - USE AN OHM METER TO TEST FOR NO MORE THAN 3 OHMS AT THE GROUND CONNECTION (BLACK WIRE).
4. INSPECT ALL HARNESSSES FOR PINCHING THAT WOULD CAUSE A SHORT CIRCUIT.
5. REPLACE THE CONTROLLER MODULE.

LED SHOWS SOLID GREEN AT ALL TIMES

1. POWER THE SYSTEM AND WALK IN FRONT OF THE SENSORS TO VERIFY THEIR OPERATION.
2. IF BOTH SENSORS WORK PROPERLY, VERIFY THAT THE INSTALLATION IS CORRECT. IF ANY SENSOR IS NOT WORKING, GO TO STEP 3.
3. REMOVE THE SENSOR(S). POWER THE SYSTEM AND WAVE YOUR HAND IN FRONT OF THE SENSOR.
 - IF SENSORS WORK PROPERLY, CHECK THE INSTALLATION.
 - IF ONLY ONE SENSOR WORKS, REPLACE BAD SENSOR
 - IF NEITHER SENSOR WORKS, REPLACE CONTROLLER.

SYSTEM NOT SENSITIVE ENOUGH- NO FLASHING AMBER OR RED, ONLY FLASHING GREEN

1. TEST THE SYSTEM AS DESCRIBED IN THE *TESTING* SECTION. IF THE SENSITIVITY IS TOO LOW:
 - FOR BEHIND-THE-BUMPER APPLICATIONS, MOVE SENSORS PAST FOAM CLOSER TO PLASTIC FACIA.
 - FOR BELOW-THE-BUMPER APPLICATIONS, MOVE SENSORS FORWARD (TOWARDS THE REAR OF CAR).
2. REPEAT STEP 1.

**SYSTEM TOO SENSITIVE-
SHOWS FLASHING OR SOLID RED
TOO SOON**

1. POWER THE SYSTEM WITH ENGINE OFF.
 - IF THE SYSTEM GOES SOLID RED IMMEDIATELY, REPLACE THE CONTROLLER MODULE.
 - IF SYSTEM SHOWS SOLID GREEN, GO TO STEP 2.
2. POWER THE SYSTEM WITH THE ENGINE RUNNING.
 - IF THE SYSTEM GOES FLASHING RED IMMEDIATELY, CHECK TO MAKE SURE THE BRACKETS ARE TIGHT AND THAT THE SENSORS ARE NOT SURROUNDED BY METAL. VIBRATIONS MAY CAUSE THE SYSTEM TO FALSE TRIGGER.
 - IF SYSTEM SHOWS SOLID GREEN, GO TO STEP 3.
3. POWER THE SYSTEM WITH THE CAR MOVING IN REVERSE.
 - IF THE SYSTEM SHOWS FLASHING AMBER OR RED WITH NO OBSTACLES PRESENT, ANGLE THE SENSOR BRACKETS UP TO (10) DEGREES UPWARD.
 - DECREASE THE AIR GAP AROUND THE SENSORS. MAKE SURE THEY ARE FLUSH AGAINST THE FACIA WHEN MOUNTED BEHIND THE BUMPER.