WARNING

IT WILL BE NECESSARY TO CUT THE SENSOR CONNECTOR FROM THE WIRE HARNESS AND SPLICE IN EXTENSION WIRES TO ALLOW THE SENSORS TO BE RELOCATED, WHICH MAY VOID THE FACTORY WARRANTY. PROFESSIONAL INSTALLATION IS RECOMMENDED.
INSTALLATION INSTRUCTIONS
FOR MOUNTING

FRONT PARKING SENSOR RELOCATION BRACKETS
ON THE FOLLOWING GRILLE GUARD MODEL NOS.:
331410/331413, 341410/341413, 331440/331443, 341440/341443, 331512/331443 &
341512/331443 ON:

2014 AND NEWER 1500 CHEVROLET SILVERADO/GMC SIERRA
2015 AND NEWER 2500HD/3500 CHEVROLET SILVERADO/GMC SIERRA

THIS KIT CONTAINS MOUNTING BRACKETS, WIRING, WIRE CONNECTORS AND ALL REQUIRED
HARDWARE TO RELOCATE THE MIDDLE TWO PARKING SENSORS IN THE FRONT BUMPER ON
CHEVROLET & GMC PICKUPS TO A POSITION ON THE GRILLE GUARD UPRIGHT SO THAT THE
UPRIGHTS DO NOT INTERFERE WITH THE OPERATION OF THE SENSORS.

1. READ THE INSTRUCTIONS COMPLETELY AND CHECK TO MAKE SURE THAT ALL OF THE
REQUIRED PARTS ARE ON HAND BEFORE STARTING THE INSTALLATION. THE CARTON
SHOULD CONTAIN:

(1) LH SENSOR MOUNTING BRACKET
(1) RH SENSOR MOUNTING BRACKET
(1) LH MOUNTING BRACKET COVER
(1) RH MOUNTING BRACKET COVER
(1) WIRING PACKAGE
(1) CUSTOMER SERVICE PACKAGE

REFER TO fig. 1 FOR SENSOR BRACKET ASSEMBLY INSTRUCTIONS 2-17

2. REMOVE THE FRONT BUMPER. (SEE SHEET 5 & 6 OF 6)

3. LOCATE THE TWO CENTER FRONT SENSOR WIRE CONNECTORS AND DISCONNECT THEM
FROM THE SENSORS. REMOVE THE SENSORS FROM THEIR BRACKETS, REMOVE THE
BRACKETS FROM THE FRONT BUMPER ON THE GMC. THE CHEVROLET SENSOR BRACKET IS
NOT REMOVEABLE.

4. ABOUT 2" FROM WHERE THE WIRES ENTER THE SENSOR CONNECTOR, CUT THE THREE
WIRES. CUT THE EXTENSION WIRES AND WIRE LOOM TO A LENGTH OF 24". TRIM BACK THE
INSULATION A 1/4" ON THE ENDS OF ALL OF THE WIRES.

5. INSERT THE WIRES INTO THE BUTT CONNECTORS (ITEM #14) AND CRIMP. BE CAREFUL THAT
THE SAME WIRES IN THE HARNESS ARE MATCHED TO THE SAME EXTENSION WIRE. (NOTE)
BEFORE CONNECTING THE THREE EXTENSION WIRES TO THE SENSOR CONNECTOR ON THE
HD CHEVROLET, FEED THE WIRES THROUGH THE SENSOR HOLE IN THE BUMPER THEN
INSTALL THE SENSOR CONNECTOR. ON THE GMC YOU WILL BE ABLE TO INSERT THE
CONNECTOR THROUGH THE LARGER HOLE IN THE BUMPER.

6. AFTER ALL OF THE WIRES ARE ASSEMBLED INTO THE BUTT CONNECTORS (ITEM #14), USING
A HEAT GUN, SHRINK ALL OF THE CONNECTORS TO SEAL THE CONNECTIONS.

7. REINSTALL THE BUMPER AND MOUNT THE GRILLE GUARD, LEAVING OUT THE TOP BOLT
THAT HOLDS THE UPRIGHTS TO THE MOUNTING BRACKETS.
8. INSTALL THE GM SENSOR BRACKETS (ITEM #5) INTO THE SENSOR BRACKET COVERS (ITEMS #3 & #4) AND SNAP INTO PLACE.

9. INSERT THE CARRIAGE BOLTS (ITEM #8) INTO THE SQUARE HOLES IN THE SENSOR MOUNTING BRACKETS (ITEMS #1 & #2).

10. (NOTE: BEFORE MOUNTING THE BRACKETS TO THE UPRIGHTS RUN THE SILVER TAPPING SCREW IN THE CUSTOMER SERVICE PACKET THROUGH THE THREADS IN THE SMALL TAB TO REMOVE ANY EXCESS PAINT FROM THE THREADS.) MOUNT THE BRACKETS (ITEMS #1 & #2) TO THE TOP HOLES IN THE UPRIGHTS SO THAT THE SENSOR BRACKETS (ITEMS #1 & #2) ARE TO THE INSIDE OF THE UPRIGHTS. INSTALL THE FLAT WASHERS AND ACORN NUTS BUT LEAVE LOOSE AT THIS TIME.


12. INSTALL THE GROMMETS (ITEM #6) IN THE HOLES IN THE BRACKETS AROUND THE WIRE HARNESS.

13. PLUG THE SENSORS INTO THE CONNECTORS ON THE WIRE HARNESS.

14. INSTALL THE SENSORS INTO THE GM SENSOR MOUNTING BRACKETS (ITEM #5) AND PLACE THE MOUNTING BRACKET COVERS (ITEMS #3 & #4) ON TO THE MOUNTING BRACKETS (ITEMS #1 & #2).

15. INSTALL THE 1/4”-20 X 3/8” BUTTON HEAD SCREWS (ITEM #9) INTO THE OUTSIDE THE OF THE COVERS (ITEMS #3 & #4).

16. ADJUST THE MOUNTING BRACKETS (ITEMS #1 & #2) SO THAT THE FACE OF THE COVERS (ITEM #3 & #4) ARE STRAIGHT UP AND DOWN. TIGHTEN ACORN NUTS ON THE CARRIAGE BOLTS (ITEM #8).

17. INSERT EXCESS WIRE INTO THE BUMPER AND INSTALL THE GROMMETS (ITEM #6) INTO THE HOLE IN THE BUMPER ON GMC’s AND GROMMETS (ITEM #7) INTO THE SENSOR BRACKETS ON THE CHEVROLETS. NOTE: SMALL GROMMET WILL NEED TO BE SPLIT.

### SERVICE PARTS LIST

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<thead>
<tr>
<th>ITEM</th>
<th>PART NO.</th>
<th>QTY</th>
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<td>202815</td>
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<td>SENSOR MOUNTING BRACKET - LH</td>
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<td>1</td>
<td>SENSOR MOUNTING BRACKET - RH</td>
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<td>202817</td>
<td>1</td>
<td>MOUNTING BRACKET COVER - LH</td>
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<td>MOUNTING BRACKET COVER – RH</td>
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<td>MOUNTING BRACKET SENSOR– 22947030,GM</td>
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<td>6</td>
<td>109855</td>
<td>4</td>
<td>GROMMET – 9/16” X 3/32” X 1”</td>
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<td>7</td>
<td>109860</td>
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<td>GROMMET - 17/32” X 1/8” X 11/16”</td>
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<td>8</td>
<td>109724</td>
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<td>ROUND HEAD BOLT – 1/2”-13 X 3-1/4”, SST</td>
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<td>BUTTON HEAD SCREW – 1/4”-20 X 3/8”, BZP</td>
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<td>10</td>
<td>109856</td>
<td>4.00’</td>
<td>WIRE - STRANDED, 18AWG, RED</td>
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<td>WIRE - STRANDED, 18AWG, WHITE</td>
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<td>WIRE - STRANDED, 18AWG, BLUE</td>
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<td>WIRE LOOM – CORRIGATED, .250 ID X .400</td>
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<td>BUTT CONNECTOR - PERMA SEAL,19164-0013</td>
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BUMPER REMOVAL
2500HD/3500

REMOVE THE FACTORY FRONT BUMPER ASSEMBLY:

1. UNPLUG THE WIRE HARNESS SERVICING THE FRONT BUMPER.

2. ON THE TWO END BRACES BEHIND THE END OF THE BUMPER, REMOVE THE BOLTS THAT FASTEN THE TUBULAR BRACE TO THE BUMPER.

3. OPEN THE HOOD AND POP OUT THE TWELVE PLASTIC RIVETS AND REMOVE THE PLASTIC SHROUD COVERING THE FAN AND RADIATOR.

4. UNSCREW THE FOUR SCREWS ON THE TOP OF THE GRILLE, SECURING THE GRILLE TO THE VEHICLE.

5. PULL OUT ON THE TOP OF THE GRILLE AND REMOVE IT FROM THE VEHICLE.

6. STANDING AT THE FRONT OF THE VEHICLE, LOOKING DOWN, FIND THE FOUR BOLTS THAT FASTEN THE BUMPER TO THE TRUCK AND REMOVE THE FOUR BOLTS.

7. REMOVE THE BUMPER ASSEMBLY.
BUMPER REMOVAL
1500

REMOVE THE FACTORY FRONT BUMPER ASSEMBLY:

1. UNPLUG THE WIRE HARNESS SERVICING THE FRONT BUMPER.

2. UNDER THE VEHICLE, LOCATE THE TWO TUBULAR SIDE BRACES AND REMOVE THE BOLTS HOLDING THE BRACE TO THE BUMPER AND THEN THE OUTER BOLT HOLDING THE BRACE TO THE FRAME. THE BRACE SHOULD BE ABLE TO BE PIVOTED TO CLEAR THE BUMPER.

3. UNCLIP AND REMOVE ONE SCREW FROM EACH SIDE OF THE LOWER PLASTIC FENDER TRIM THAT GOES OVER THE PLASTIC BUMPER TOP PANEL ENDS.

4. PULL ON THE FENDER TRIM TO RELEASE THE TWO CLIPS ON EACH SIDE. THE CLIPS SHOULD STAY IN THE TRIM, BUT IF NOT THE CLIP WILL NEED TO BE PRYED OUT OF THE FENDER AND REINSTALLED INTO THE TRIM.

5. REMOVE THE TWO SCREWS IN BOTH THE INNER FENDERS HOLDING THE PLASTIC TOP BUMPER PANEL ON.

6. OPEN THE HOOD AND POP OUT THE TWELVE PLASTIC RIVETS AND REMOVE THE PLASTIC SHROUD COVERING THE FAN AND RADIATOR.

7. PULL THE PLASTIC TOP BUMPER PANEL OUT, RELEASING THE CLIPS, THIS PANEL NEEDS TO BE REMOVED AND SET ASIDE.

8. REMOVE THE BOLTS HOLDING THE LOWER PORTION OF THE GRILLE ON, THESE WILL BE BEHIND WHERE THE PLASTIC TOP BUMPER PANEL WAS.

9. AFTER THE BOLTS ARE REMOVED, PULL OUT ON THE GRILLE, RELEASING THE CLIPS.

10. STANDING AT THE FRONT OF THE VEHICLE, LOOKING DOWN, FIND THE FOUR BOLTS THAT FASTEN THE BUMPER TO THE TRUCK (ONE ON EACH SIDE OF THE TWO FRAME RAILS AND, REMOVE THE FOUR BOLTS.

11. SET THE BUMPER ASIDE TO WORK ON THE WIRING.
fig. 1

Strip a 1/4" of insulation from all wire ends.

Parts supplied with grille guard.

Sensor mounting bracket notches at bottom.

Connector.

Drain hole at bottom.

GM sensor.

End of wire harness.

Right side shown; left side opposite.