



INSTALLATION INSTRUCTIONS FOR MOUNTING

FRONT PARKING SENSOR RELOCATION BRACKETS

ON THE FOLLOWING PROWLER MAX MODEL NOS.:

320713/321610, 310713/321610, 320713/321512 & 310713/321512 ON:

(NOTE: TWO 390210 KITS ARE REQUIRED FOR THE PROWLER MAX GUARD)

2014 AND NEWER 1500 CHEVROLET SILVERADO/GMC SIERRA

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

EACH KIT CONTAINS MOUNTING BRACKETS, WIRING HARNESSES AND ALL REQUIRED HARDWARE TO RELOCATE EITHER THE MIDDLE OR THE OUTSIDE TWO PARKING SENSORS IN THE FRONT BUMPER ON CHEVROLET & GMC PICKUPS TO A POSITION ON THE PROWLER MAX UPRIGHTS 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. EACH CARTON SHOULD CONTAIN:

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

REFER TO *fig. 1* FOR SENSOR BRACKET ASSEMBLY INSTRUCTIONS 2-14

2. REMOVE THE FRONT BUMPER. (SEE SHEET 5 & 6 OF 6) (CHECK FIRST IF YOU CAN REMOVE THE SENSORS WITHOUT REMOVING THE BUMPER.)
3. LOCATE THE FOUR FRONT SENSOR WIRE CONNECTORS AND DISCONNECT THEM FROM THE SENSORS. CAREFULLY REMOVE THE SENSORS FROM THEIR BRACKETS. REMOVE THE BRACKETS FROM THE FRONT BUMPER ON THE GMC. THE TWO CHEVROLET 2500/3500 CENTER SENSOR BRACKETS ARE NOT REMOVEABLE.
4. INSERT THE MALE ENDS OF THE SENSOR RELOCATION WIRE HARNESSES (ITEM #17) THROUGH THE SENSOR HOLES IN THE FACE OF THE BUMPER AND PLUG THEM INTO THE FACTORY WIRE HARNESS THAT WAS DISCONNECTED FROM THE PARKING SENSORS. INSTALL THE APPROPRIATE GROMMETS (ITEM #7 GMC OR #8 CHEVROLET CENTER HOLES) IN THE HOLES IN THE BUMPERS AROUND THE WIRE HARNESSES. AN ALTERNATE METHOD OF WIRING THE OUTSIDE SENSORS IS PROVIDED. PLUG THE OUTSIDE HOLE WITH THE INCLUDED HOLE PLUG AND RUN THE WIRES DOWN THE UPRIGHT AND THROUGH THE TOW HOOK HOLE IN THE CLOSEOUT PANEL.
5. REINSTALL THE BUMPER AND MOUNT THE PROWLER MAX, USING THE 1/2"-13 X 2" HEX HEAD BOLTS (ITEM #9) IN THE TOP HOLES. INSTALL THE NUT ON THE TOP BOLTS JUST TO KEEP THE GUARD FROM ROTATING.



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6. INSTALL THE GM SENSOR BRACKETS (ITEM #6) INTO THE SENSOR BRACKET COVERS (ITEMS #3 & #4) AND SNAP INTO PLACE.

(NOTE: BEFORE MOUNTING THE SENSOR BRACKET ASSEMBLIES TO THE UPRIGHTS, INSTALL THE 1/4"-20 SINGLE THREAD J-NUTS (ITEM #13) ON TO THE TABS OF THE MOUNTING BRACKETS (ITEMS #1 & #2.) AND INSTALL THE 3/8"-16 CAPTIVE NUT (ITEM #12) INTO THE SQUARE HOLE IN THE OTHER FLANGE.)

7. FEED THE CONNECTOR END OF THE WIRE HARNESSSES THROUGH THE HOLES IN THE BACK OF THE BRACKETS (ITEMS #1 & #2). INSTALL THE GROMMETS AROUND THE WIRING.
8. PLUG THE SENSORS INTO THE CONNECTORS ON THE WIRE HARNESSSES.
9. INSTALL THE SENSORS INTO THE GM SENSOR MOUNTING BRACKETS (ITEM #6) AND PLACE THE MOUNTING BRACKET COVERS (ITEMS #3 & #4) ON TO THE MOUNTING BRACKETS (ITEMS #1 & #2).
10. INSTALL THE 1/4"-20 X 5/8" BUTTON HEAD SCREWS (ITEM #11) INTO THE OUTSIDE THE OF THE COVERS (ITEMS #3 & #4).
11. INSTALL THE SENSOR BRACKET/COVER ASSEMBLIES TO THE SENSOR BRACKETS (ITEM #5) THAT ATTACHES TO THE UPRIGHTS WITH THE 3/8"-16 BUTTON HEAD SCREW (ITEM #10) AND THE 3/8" LOCK WASHERS (ITEM #14).
12. ADJUST THE SENSOR BRACKET/COVER ASSEMBLIES SO THAT THE FACE OF THE COVERS (ITEM #3 & #4) ARE PARALLEL WITH THE FRONT EDGE OF THE SENSOR BRACKET (ITEM #5) TIGHTEN THE 3/8"-16 BUTTON HEAD SCREWS (ITEM #10) .
13. MOUNT THE SENSOR BRACKET ASSEMBLIES TO THE TOP HOLES IN THE UPRIGHT/MOUNTING BRACKETS AS SHOWN IN *fig. 1* SO THAT THE SENSOR BRACKETS (ITEMS #1 & #2) ARE TO THE INSIDE AND OUTSIDE OF THE UPRIGHTS AND STRAIGHT UP AND DOWN. TIGHTEN THE 1/2"-13 ACORN NUTS.
14. INSERT EXCESS WIRE INTO THE BUMPER.

SERVICE PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
1	202815	1	SENSOR MOUNTING BRACKET – LH
2	202816	1	SENSOR MOUNTING BRACKET – RH
3	202817	1	MOUNTING BRACKET COVER – LH
4	202818	1	MOUNTING BRACKET COVER – RH
5	202812	2	BRACKET – SENSOR MOUNTING
6	109853	2	MOUNTING BRACKET SENSOR– 22947030,GM
7	109855	4	GROMMET – A10015-1-A60
8	109860	2	GROMMET – A2409-1-A60
9	109969	1	HEX HEAD BOLT – 1/2”-13 X 2”, BZP
10	100699	2	BUTTON HEAD SCREW – 3/8”-16 X 1”, SST
11	109861	2	BUTTON HEAD SCREW – 1/4”-20 X 5/8”, SST, BZP
12	109974	2	CAPTIVE NUTS – 3/8”-16
13	109862	2	U-NUTS – 1/4”-20 SINGLE THREAD
14	100060	2	LOCK WASHER – 3/8”, SST
15	100940	1	FLAT WASHER – 1/2” , SAE, BZP
16	103746	1	SNAP IN HOLE PLUG – 1” DIAMETER
17	109854	2	SENSOR RELOCATION WIRE HARNESS
18	N/A	N/A	PARTS SUPPLIED WITH PROWLER MAX

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 BRACES TO THE BUMPER AND LOOSEN THE TWO BOLTS ON THE FRAME SIDE.

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.

8. REMOVE THE TOW HOOKS.



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.

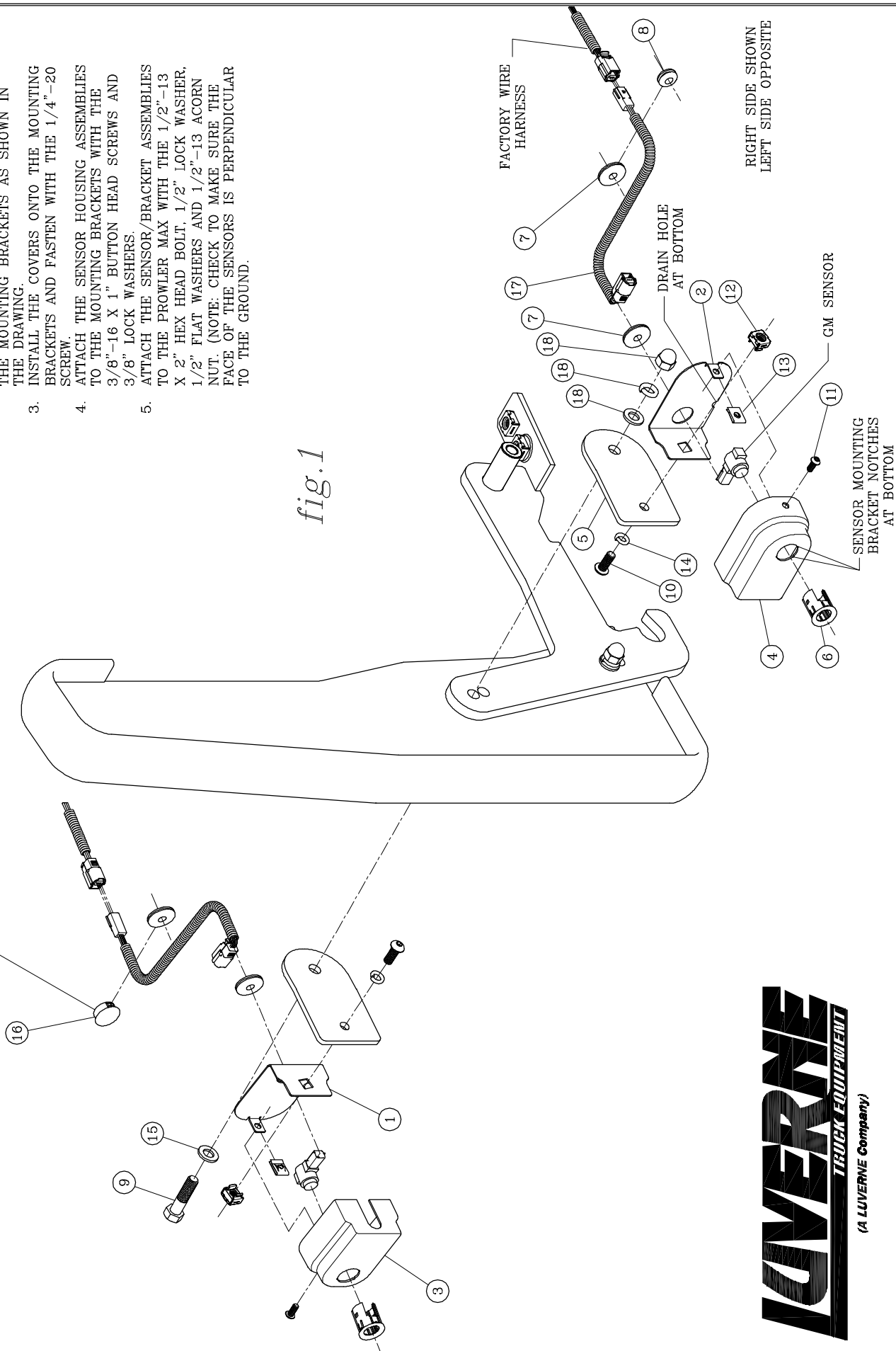
SERVICE PARTS LIST

MODEL NO. - 390210 X 2

ALTERNATE WIRING CHOICE, PLUG HOLE IN THE BUMPER AND RUN THE WIRE DOWN AND THROUGH THE TOW HOOK HOLE.

1. INSTALL THE TINNEMAN CAGE NUTS INTO THE SENSOR RELOCATION BRACKETS.
2. ASSEMBLE THE REMAINING PARTS INTO THE MOUNTING BRACKETS AS SHOWN IN THE DRAWING.
3. INSTALL THE COVERS ONTO THE MOUNTING BRACKETS AND FASTEN WITH THE 1/4"-20 SCREW.
4. ATTACH THE SENSOR HOUSING ASSEMBLIES TO THE MOUNTING BRACKETS WITH THE 3/8"-16 X 1" BUTTON HEAD SCREWS AND 3/8" LOCK WASHERS.
5. ATTACH THE SENSOR/BACKET ASSEMBLIES TO THE PROWLER MAX WITH THE 1/2"-13 X 2" HEX HEAD BOLT, 1/2" LOCK WASHER, 1/2" FLAT WASHERS AND 1/2"-13 ACORN NUT. (NOTE: CHECK TO MAKE SURE THE FACE OF THE SENSORS IS PERPENDICULAR TO THE GROUND.

fig.1



LAVERNE
TRUCK EQUIPMENT
(A Laverne Company)