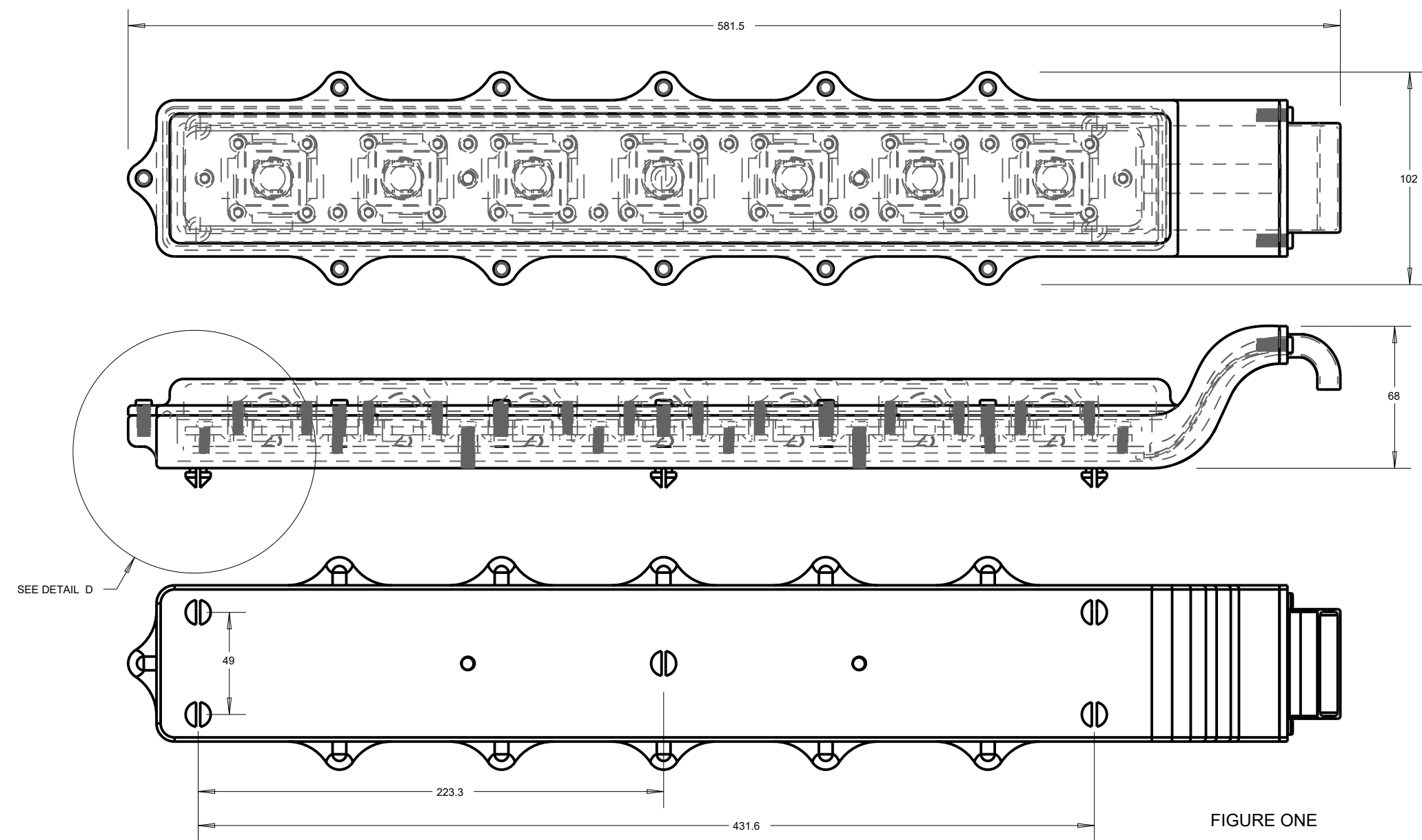
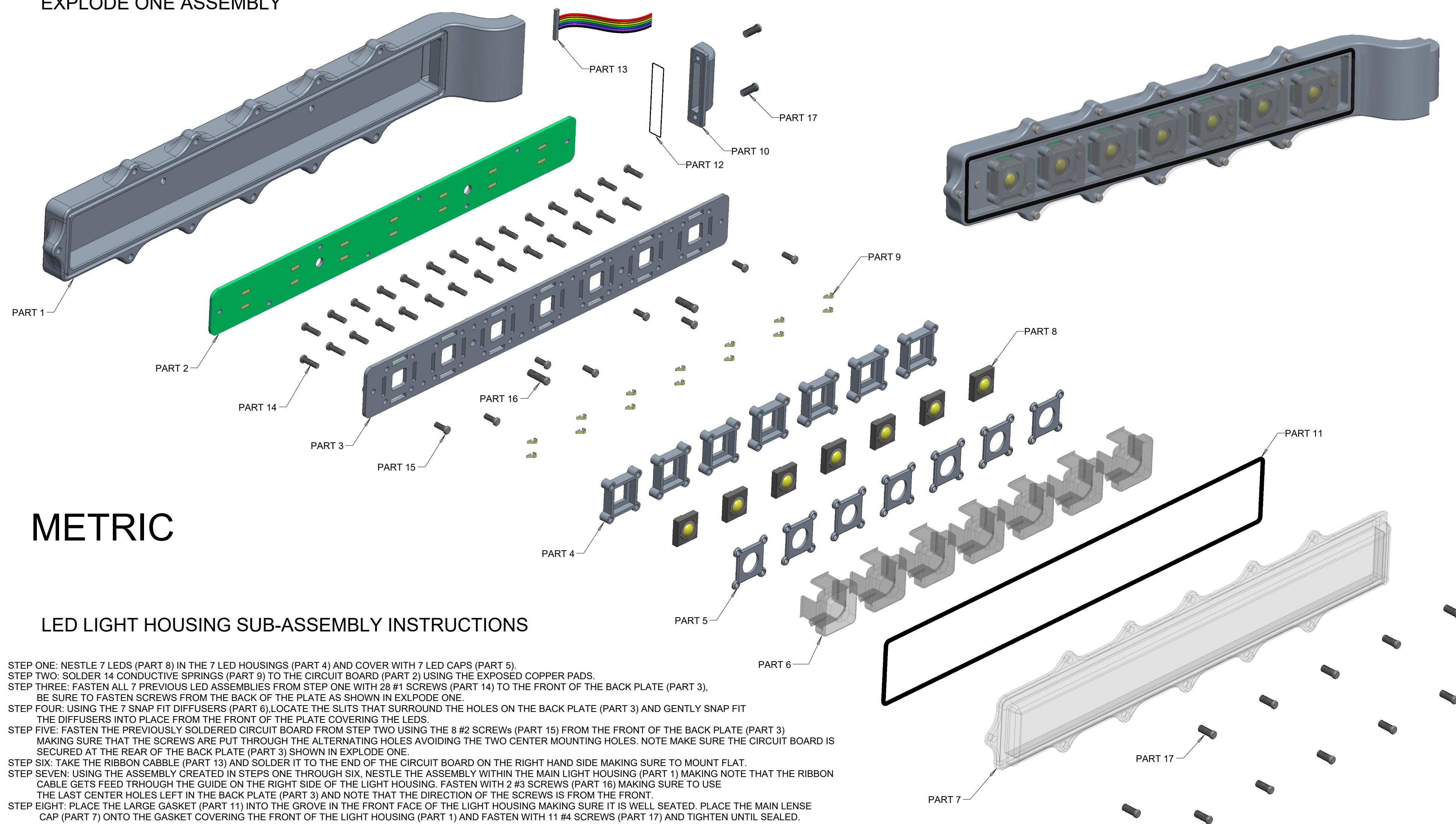


ORTHOGRAPHIC VIEWS



EXPLODE ONE ASSEMBLY



METRIC

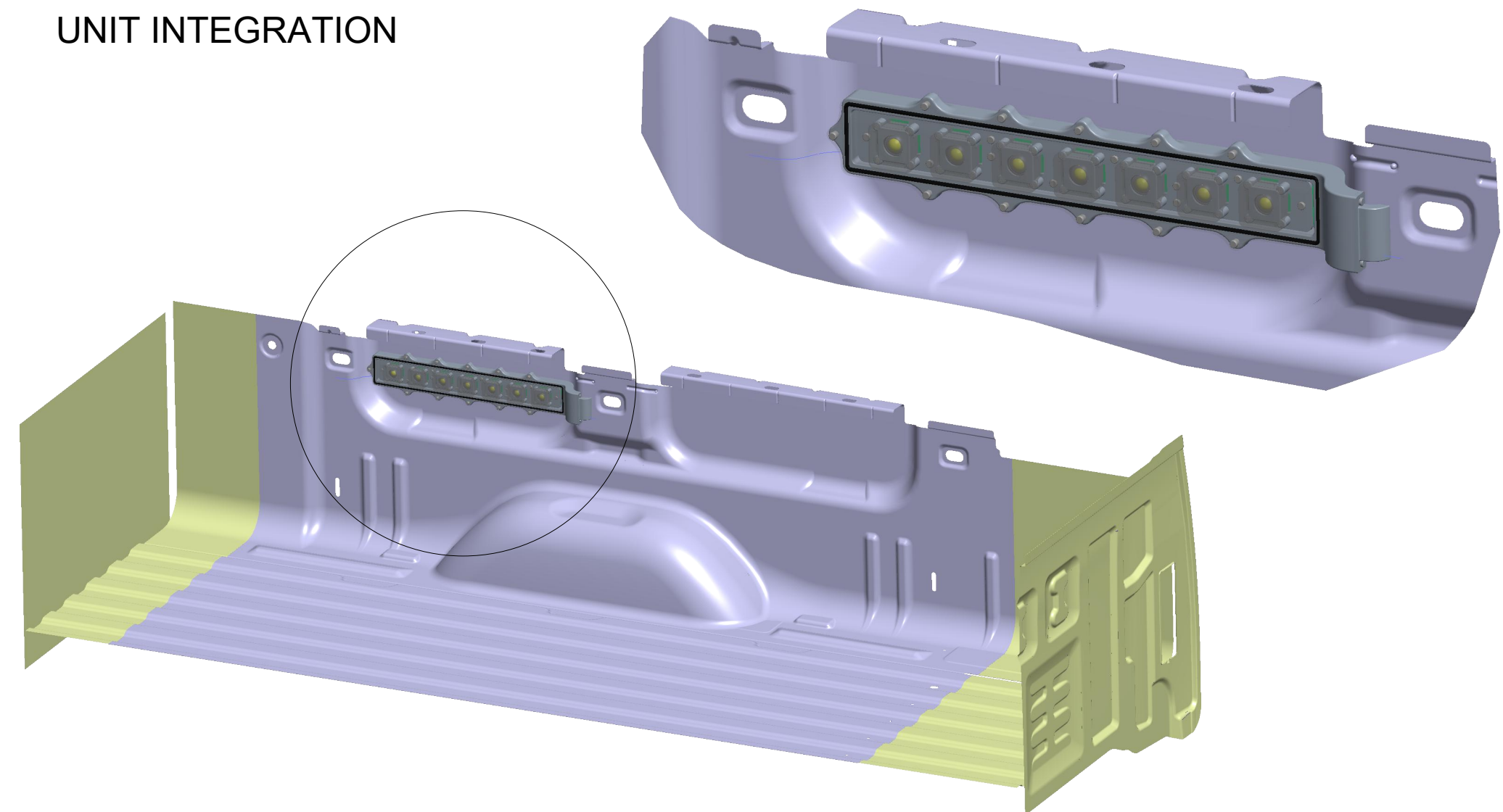
LED LIGHT HOUSING SUB-ASSEMBLY INSTRUCTIONS

STEP ONE: NESTLE 7 LEDS (PART 8) IN THE 7 LED HOUSINGS (PART 4) AND COVER WITH 7 LED CAPS (PART 5).
 STEP TWO: SOLDER 14 CONDUCTIVE SPRINGS (PART 9) TO THE CIRCUIT BOARD (PART 2) USING THE EXPOSED COPPER PADS.
 STEP THREE: FASTEN ALL 7 PREVIOUS LED ASSEMBLIES FROM STEP ONE WITH 28 #1 SCREWS (PART 14) TO THE FRONT OF THE BACK PLATE (PART 3). BE SURE TO FASTEN SCREWS FROM THE BACK OF THE PLATE AS SHOWN IN EXPLODE ONE.
 STEP FOUR: USING THE 7 SNAP FIT DIFFUSERS (PART 6), LOCATE THE SLITS THAT SURROUND THE HOLES ON THE BACK PLATE (PART 3) AND GENTLY SNAP FIT THE DIFFUSERS INTO PLACE FROM THE FRONT OF THE PLATE COVERING THE LEDS.
 STEP FIVE: FASTEN THE PREVIOUSLY SOLDERED CIRCUIT BOARD FROM STEP TWO USING THE 8 #2 SCREWS (PART 15) FROM THE FRONT OF THE BACK PLATE (PART 3) MAKING SURE THAT THE SCREWS ARE PUT THROUGH THE ALTERNATING HOLES AVOIDING THE TWO CENTER MOUNTING HOLES. NOTE MAKE SURE THE CIRCUIT BOARD IS SECURED AT THE REAR OF THE BACK PLATE (PART 3) SHOWN IN EXPLODE ONE.
 STEP SIX: TAKE THE RIBBON CABLE (PART 13) AND SOLDER IT TO THE END OF THE CIRCUIT BOARD ON THE RIGHT HAND SIDE MAKING SURE TO MOUNT FLAT.
 STEP SEVEN: USING THE ASSEMBLY CREATED IN STEPS ONE THROUGH SIX, NESTLE THE ASSEMBLY WITHIN THE MAIN LIGHT HOUSING (PART 1) MAKING NOTE THAT THE RIBBON CABLE GETS FEED THROUGH THE GUIDE ON THE RIGHT SIDE OF THE LIGHT HOUSING. FASTEN WITH 2 #3 SCREWS (PART 16) MAKING SURE TO USE THE LAST CENTER HOLES LEFT IN THE BACK PLATE (PART 3) AND NOTE THAT THE DIRECTION OF THE SCREWS IS FROM THE FRONT.
 STEP EIGHT: PLACE THE LARGE GASKET (PART 11) INTO THE GROVE IN THE FRONT FACE OF THE LIGHT HOUSING MAKING SURE IT IS WELL SEATED. PLACE THE MAIN LENSE CAP (PART 7) ONTO THE GASKET COVERING THE FRONT OF THE LIGHT HOUSING (PART 1) AND FASTEN WITH 11 #4 SCREWS (PART 17) AND TIGHTEN UNTIL SEALED.
 STEP NINE: SEAT THE SMALL GASKET INTO THE SIDE OF THE LIGHT HOUSING (PART 1) WHERE THE RIBBON CABLE IS LOCATED AND FASTEN THE WIRE GUIDE USING THE 2 #4 SCREWS (PART 17) UNTIL SEALED.

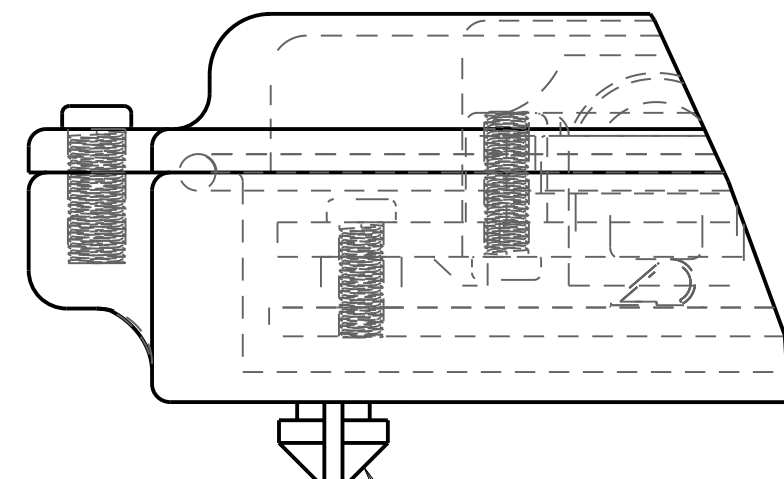
BOM CHART

PART #	QTY	PART NAME
1	1	LIGHT HOUSING
2	1	CIRCUIT BOARD
3	1	BACK PLATE
4	7	LED HOUSING
5	7	LED CAP
6	7	DIFFUSER
7	1	MAIN LENSE CAP
8	7	LED
9	14	CONDUCTIVE SPRING
10	1	WIRE GUIDE
11	1	LARGE GASKET
12	1	SMALL GASKET
13	1	RIBBON CABLE
14	28	#1 SCREW
15	8	#2 SCREW
16	2	#3 SCREW
17	13	#4 SCREW

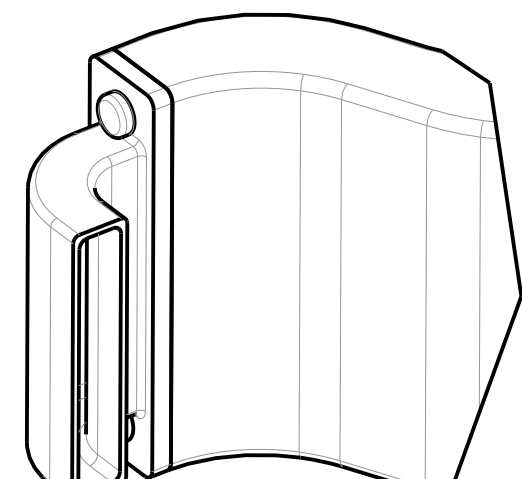
UNIT INTEGRATION



DETAIL D



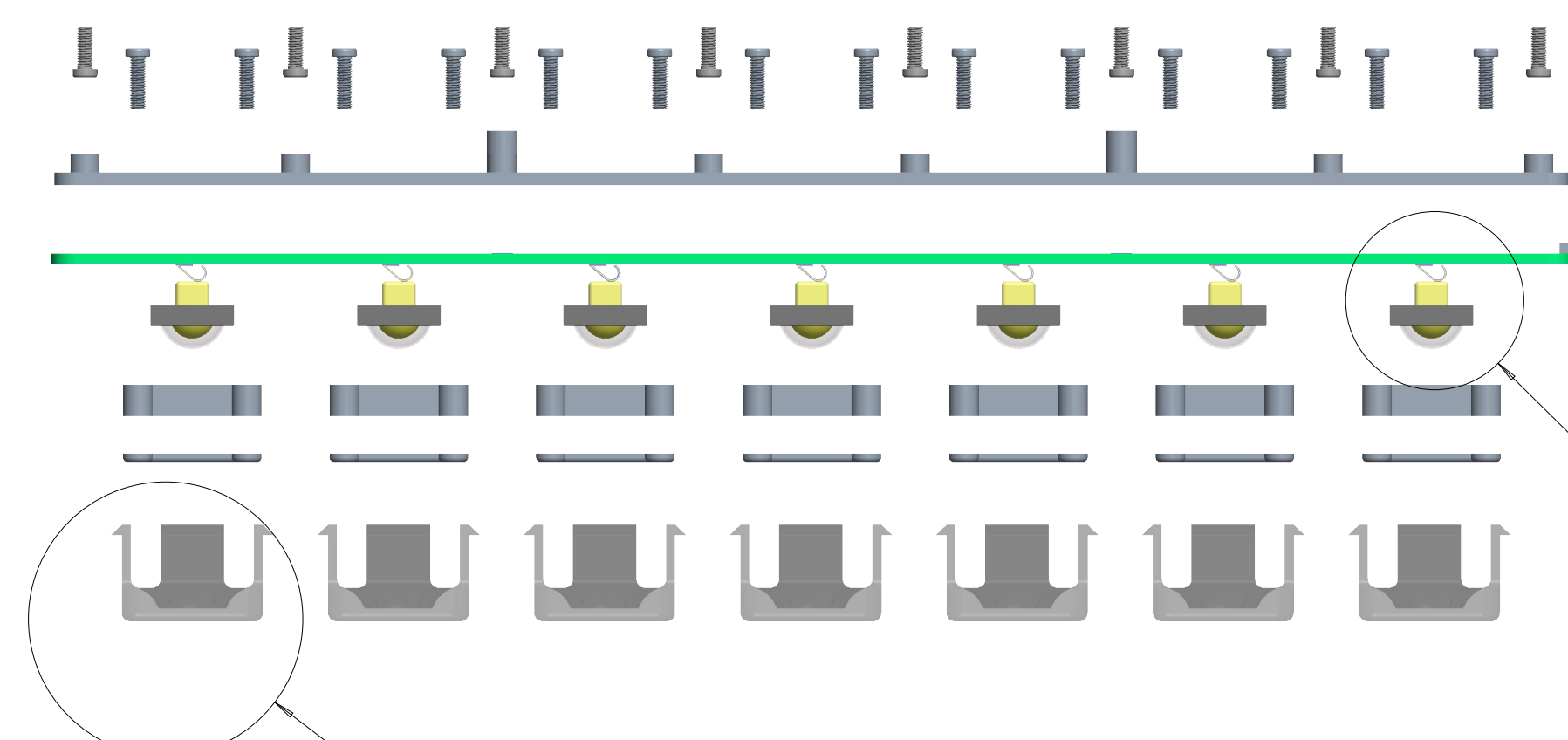
PLASTIC CLIPS MOLDED INTO THE LIGHT HOUSING MAKE IT EASY TO SNAP FIT THE ENTIRE ASSEMBLY FOR QUICK INSTALLATION.



TRACE SHAPE TO CUT OUT WITH SAW FOR INSTALLATION

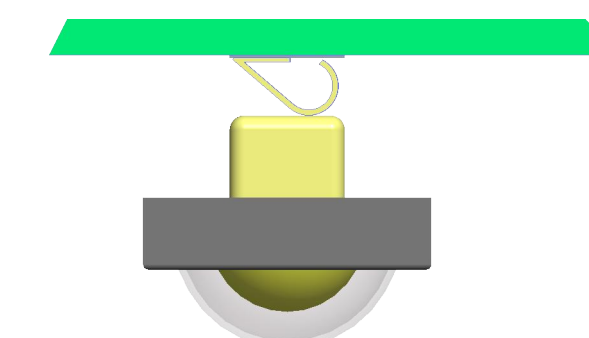
INSTALLATION INSTRUCTIONS

STEP ONE: IN ORDER TO INTALL UNIT THE USER MUST DRILL 5 8MM HOLES THAT ARE SPACED USING FIGURE 1 ABOVE. NOTE: HOLES SHOULD BE SPACED 70MM FROM THE TOP OF THE TRUCK BED.
 STEP TWO: ONCE THE FIVE HOLES ARE DRILLED MATCH UP THE FIVE PLASTIC CLIPS ON THE BACK OF THE LIGHT HOUSING (PART 1) THEN ALIGN THE WIRE GUIDE (PART 10) AND MARK USING MARKING ALCOHOL BASED PEN.
 STEP THREE: USING A RECIPROCATING SAW, CUT OUT THE PREVIOUS MARKED RECTANGLE ALLOWING THE WIRE GUIDE TO FIT WITHIN.
 STEP FOUR: ONCE ALL SIX HOLES ARE MATCHED UP PRESS THE LIGHT UNIT INTO THE SIDE OF THE TRUCK BED LISTENING FOR FIVE DISTINCT SNAP FITS. THE WIRE GUIDE CAN THEN BE SEALED AROUND THE EDGES WITH A SILICONE SEALANT.

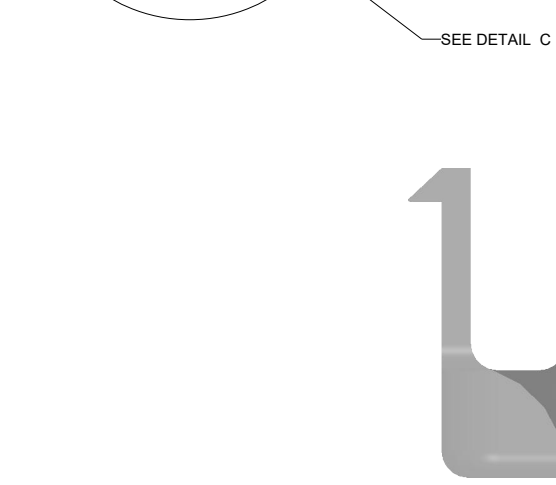


LEDS ARE ELECTRICALLY CONNECTED USING SPRING FITTINGS THAT PUT CONSTANT PRESSURE ON LED PINS TO MAKE CONTACT. IN CASE OF AN ISOLATED LED FAILURE THE USER WILL BE ABLE TO REMOVE THE DEFECTIVE LED WITHOUT THE USE OF SOLDERING, EXPANDING THE PRODUCTS LIFETIME.

SEE DETAIL B



DETAIL B



DETAIL C

DIFFUSERS PROVIDE LIGHT DISTRIBUTION THROUGHOUT THE TRUCK BED ELIMINATING LIGHT POLLUTION.

CONTROL/ELECTRONIC INTERGRATION

IN ORDER TO INTEGRATE ELECTRONICS INTO THE BED OF THE TRUCK THE A SMALL RIBBON CABLE WILL BE INSERTED THROUGH THE WIRE GUIDE AND INTO THE TRUCK BETWEEN THE BED PANEL AND THE TRUCK LINER. THIS WOULD THEN ROUTE TO THE TRUCKS MAIN CIRCUIT BREAKER. THE LIGHTS ARE CONTROLLED WITH THE TRUCKS KEY FOB WHICH PREVENTS UNINTENTIONAL ILLUMINATION OF THE TRUCK BED.

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GRADE LEVEL: CATEGORY:

11 ENGINEERING DESIGN

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