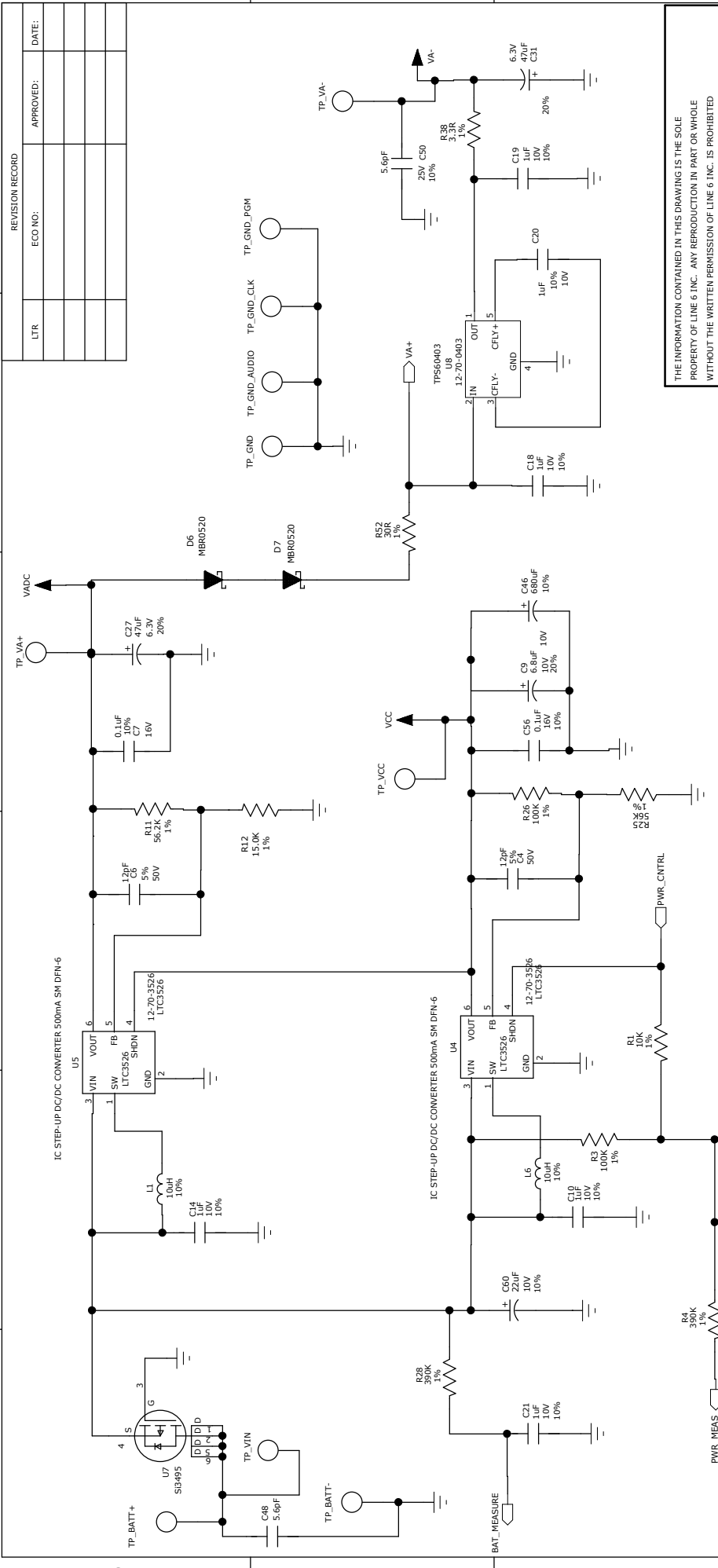


6 5 4 3 2 1



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LINE 6

MDN Bodypack TX Main Power Supply Section

COMPANY:	LINE 6
TITLE:	MDN Bodypack TX Main Power Supply Section
PROGRAM:	PADS POWER LOGIC V4.0
FILENAME:	Product Directory/PCBs/Board Directory/File.sch
SCALE:	1:1 SIZE: B PART NUMBER: 35-00-5011 SHEET: 1 OF 4

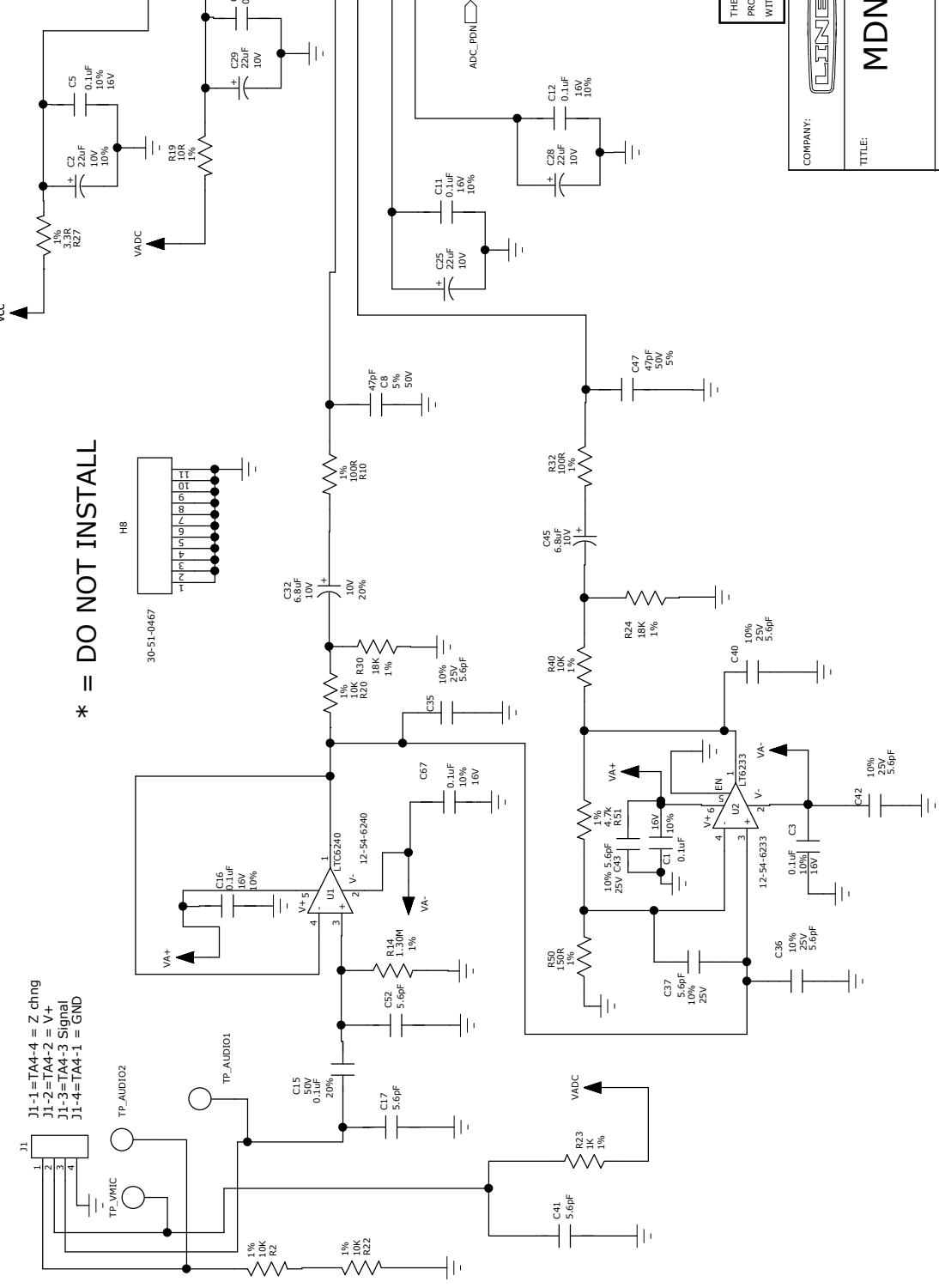
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DRAWN:	G. Coker	DATED:	Date
CHECKED:	Initials	DATED:	Date

REV:	E
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6 5 4 3 2 1

REVISION RECORD	
LTR	DATE:
ECO NO:	APPROVED:



* = DO NOT INSTALL

- J1-1=TA4-4 = Z chng
- J1-2=TA4-2 = V+
- J1-3=TA4-3 Signal
- J1-4=TA4-1 = GND

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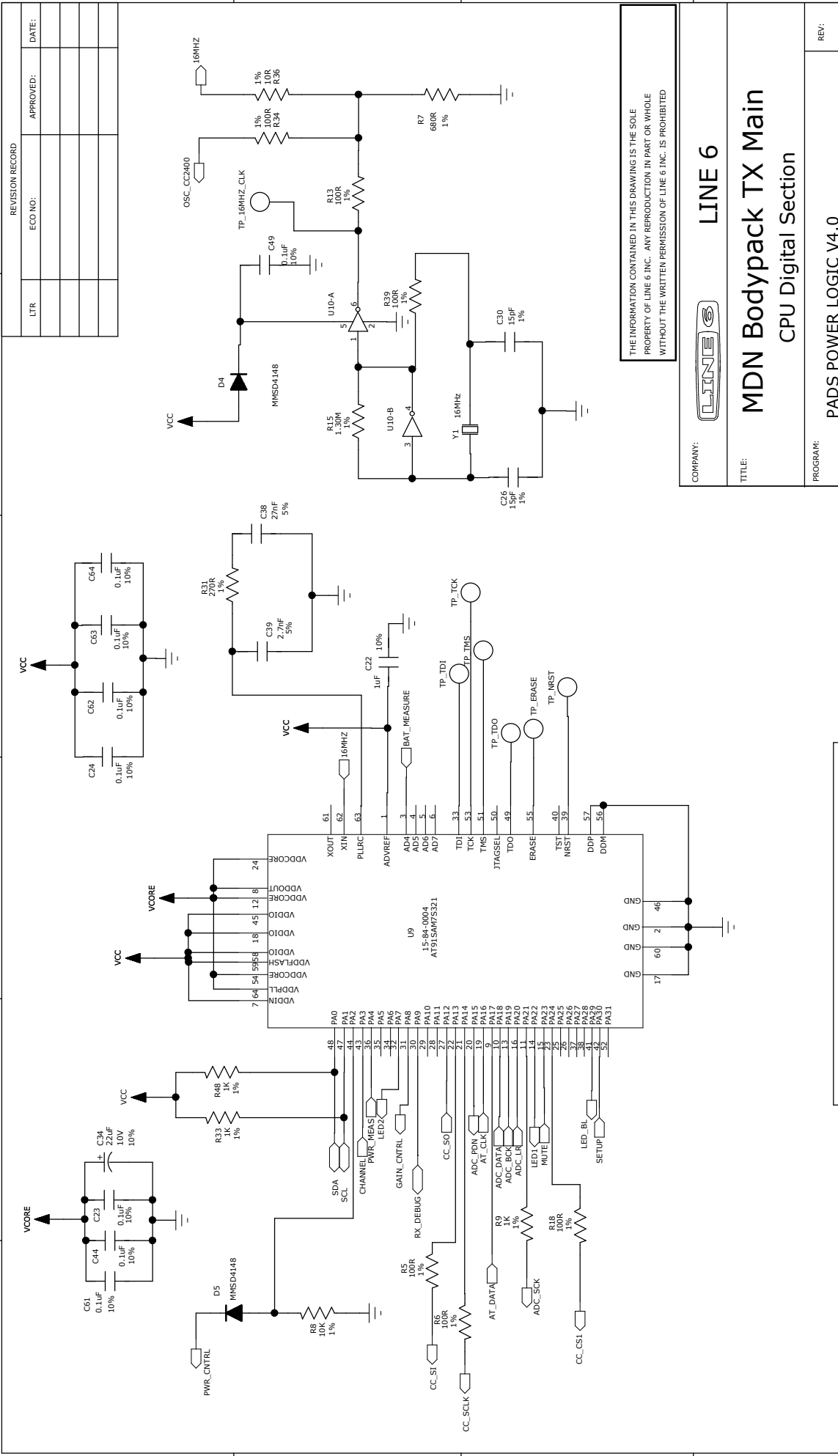
LINE 6

COMPANY: **LINE 6**
 TITLE: **MDN Bodypack TX Main Audio Front End**
 PROGRAM: **PADS POWER LOGIC 2007.2**

REV:	E
FILENAME:	Product Directory/PCBs/Board Directory/File.sch
SCALE:	1:1 SIZE: B PART NUMBER: 35-00-5011 SHEET: 2 OF 4

DRAWN:	G. Coker	DATED:	Date
CHECKED:	Initials	DATED:	Date

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COMPANY: **LINE 6**

TITLE: **MDN Bodypack TX Main CPU Digital Section**

PROGRAM: **PADS POWER LOGIC V4.0**

SCALE: **1:1** SIZE: **B** PART NUMBER: **35-00-5011** SHEET: **3** OF **4**

REV: **E**

FILENAME: Product Directory/PCBs/Board Directory/File.sch

DRAWN:	G. Coker	DATE:	
CHECKED:	Initials	DATE:	

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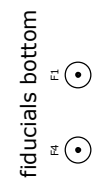
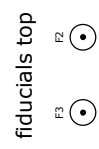
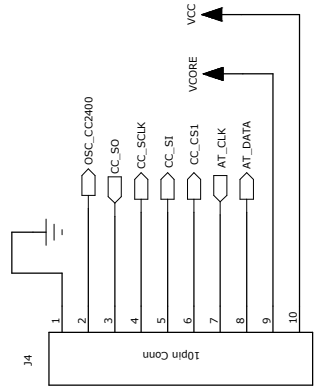
D C B A

1 2 3 4 5 6

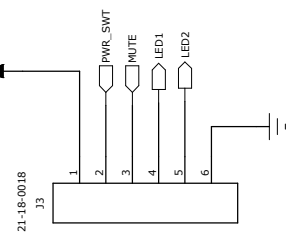
D C B A

6 5 4 3 2 1

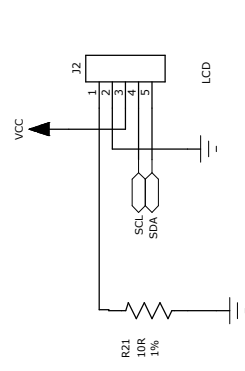
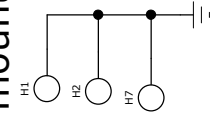
RF PCB CONNECTOR



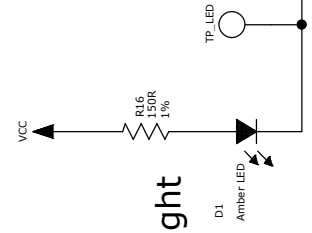
UI PCB CONNECTOR



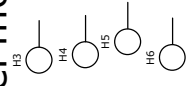
pcb mounts



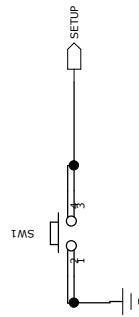
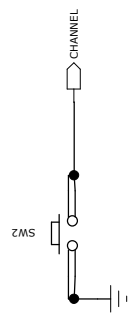
lcd backlight



bezel mounts



REVISION RECORD		
LTR	ECO NO:	APPROVED:



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COMPANY: **LINE 6**

TITLE: **MDN Bodypack TX Main UI Section**

PROGRAM: **PADS POWER LOGIC V4.0**

FILENAME: **Product Directory/PCBs/Board Directory/File.sch**

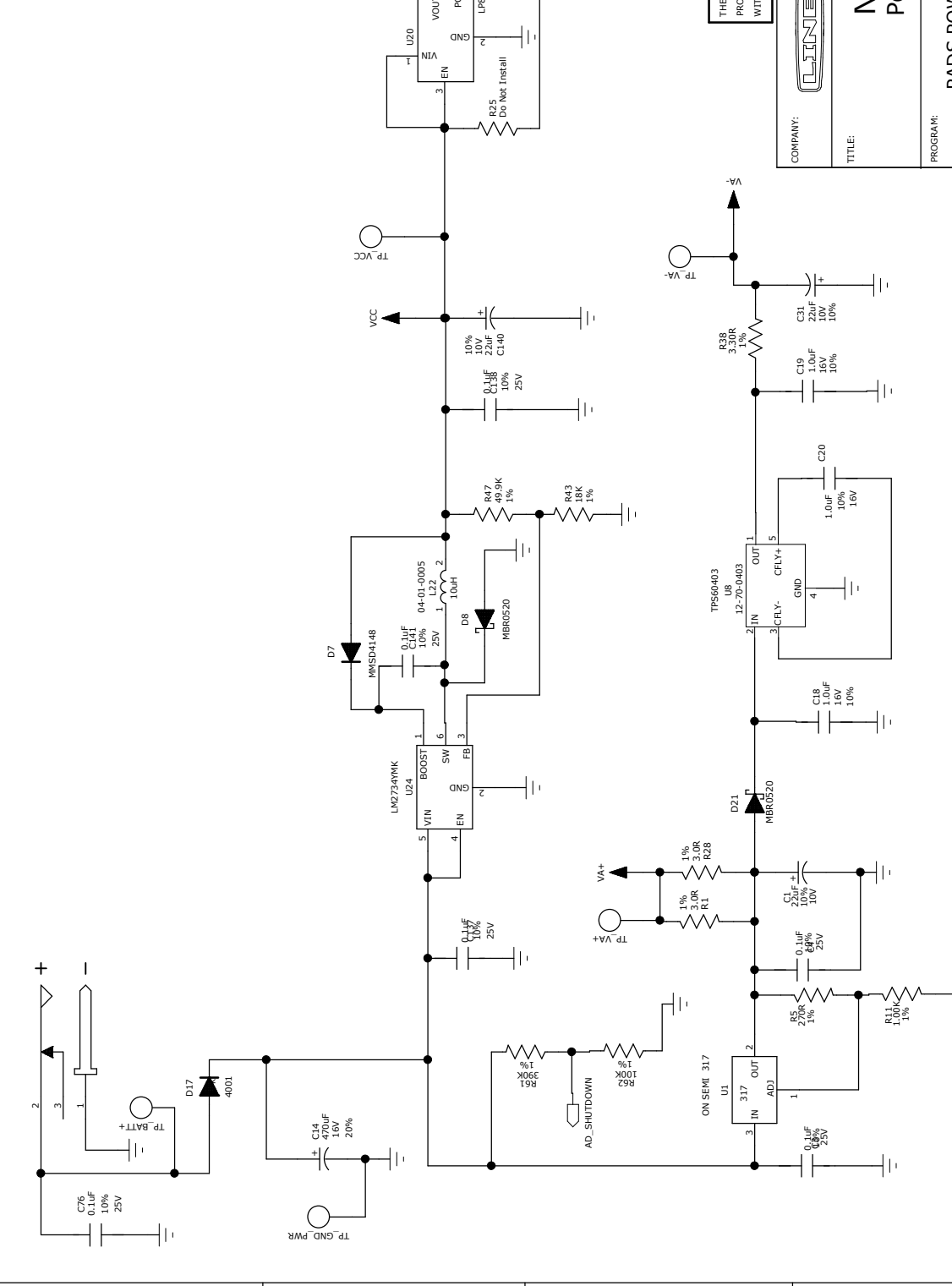
SCALE: **1:1** SIZE: **B** PART NUMBER: **35-00-5011** SHEET: **4** OF **4**

REV: **E**

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CHECKED: Initials	DATED: Date

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LTR	DATE
ECO NO:	APPROVED:



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LINE 6

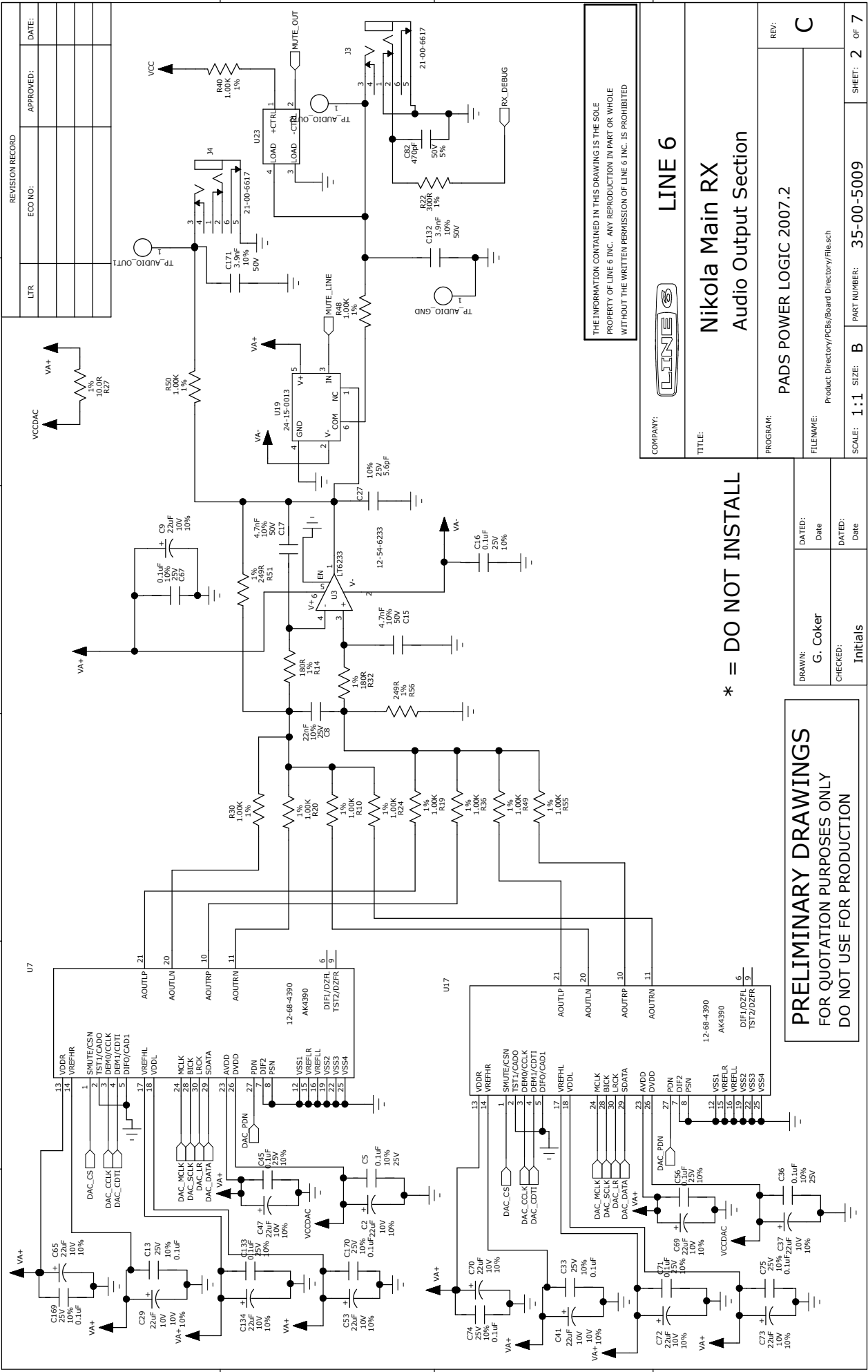
Nikola Main RX
Power Supply Section

COMPANY:	PROGRAM:	REV:
TITLE:	PADS POWER LOGIC V4.0	C
FILENAME:	Product Directory/PCBs/Board Directory/File.sch	
SCALE:	1:1	SHEET: 1
SIZE:	B	OF 7
PART NUMBER:	35-00-5009	

DRAWN:	DATE:
G. Coker	Date
CHECKED:	DATE:
Initials	Date

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1 2 3 4 5 6



REVISION RECORD		DATE:
LTR	ECCO NO:	
	APPROVED:	

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LINE 6

Nikola Main RX
Audio Output Section

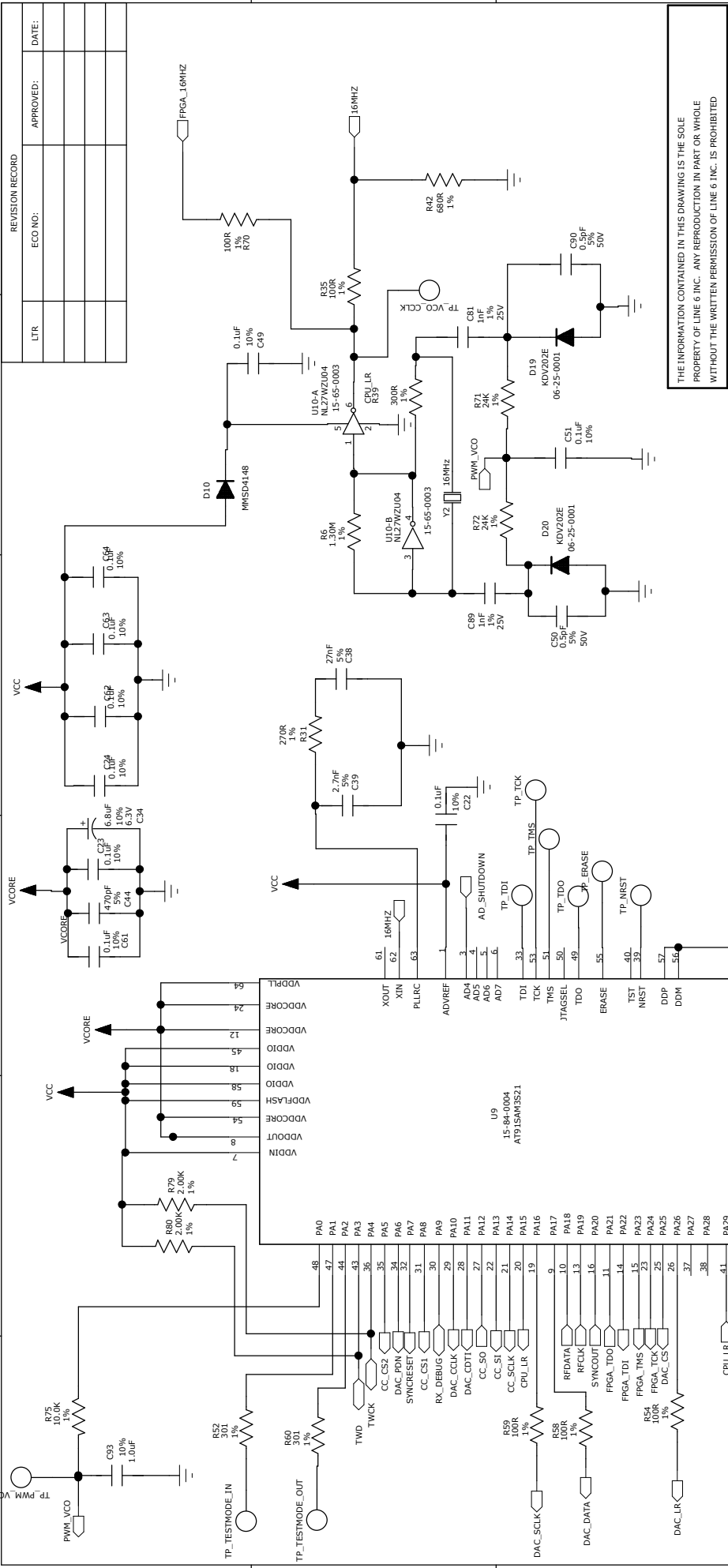
COMPANY:	PROGRAM:	REV:
TITLE:	PADS POWER LOGIC 2007.2	C
FILENAME:	Product Directory/PCBs/Board Directory/File.sch	
SCALE:	1:1 SIZE: B	PART NUMBER: 35-00-5009
		SHEET: 2 OF 7

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DRAWN:	DATED:
G. Coker	Date
CHECKED:	DATED:
Initials	Date

1 2 3 4 5 6



COMPANY: **LINE 6**

TITLE: **Nikola Main RX Digital Section CPU**

PROGRAM: **PADS POWER LOGIC V4.0**

SCALE: **1:1** SIZE: **B** PART NUMBER: **35-00-5009** SHEET: **3** of 7

DATE: _____	DATE: _____
DATE: _____	DATE: _____

DRAWN: **G. Coker**

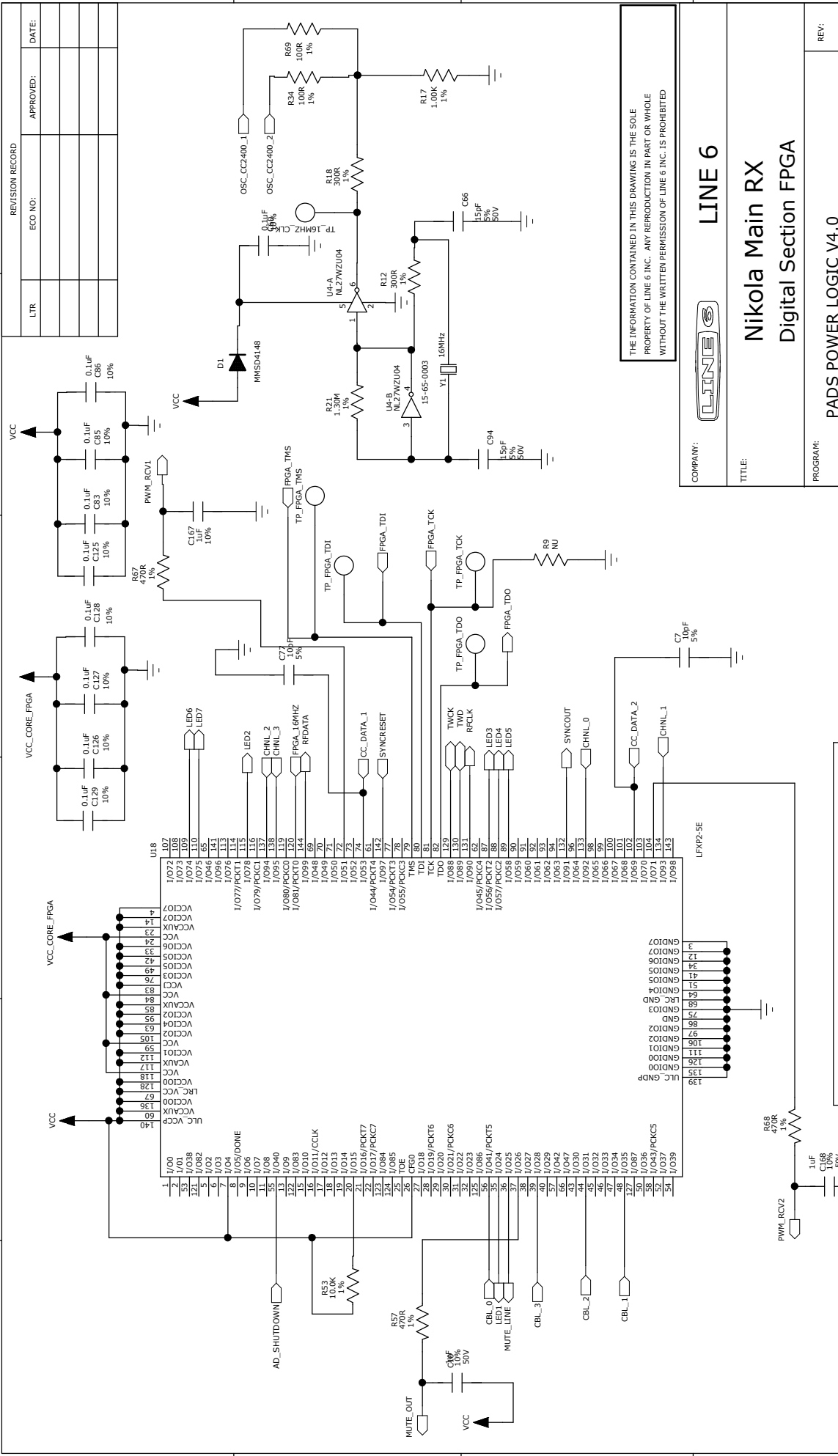
CHECKED: **Initials**

FILENAME: _____

Product Directory/PCBs/Board Directory/File.sch

REV: **C**

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REVISION RECORD	
LTR	DATE:
ECO NO:	APPROVED:

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COMPANY: LINE 6

TITLE: Nikola Main RX
Digital Section FPGA

PROGRAM: PADS POWER LOGIC V4.0

FILENAME: Product Directory/PCBs/Board Directory/File.sch

SCALE: 1:1 SIZE: B PART NUMBER: 35-00-5009 SHEET: 4 OF 7

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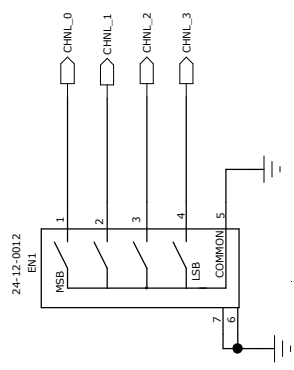
DRAWN: G. Coker	DATED: Date
CHECKED: Initials	DATED: Date

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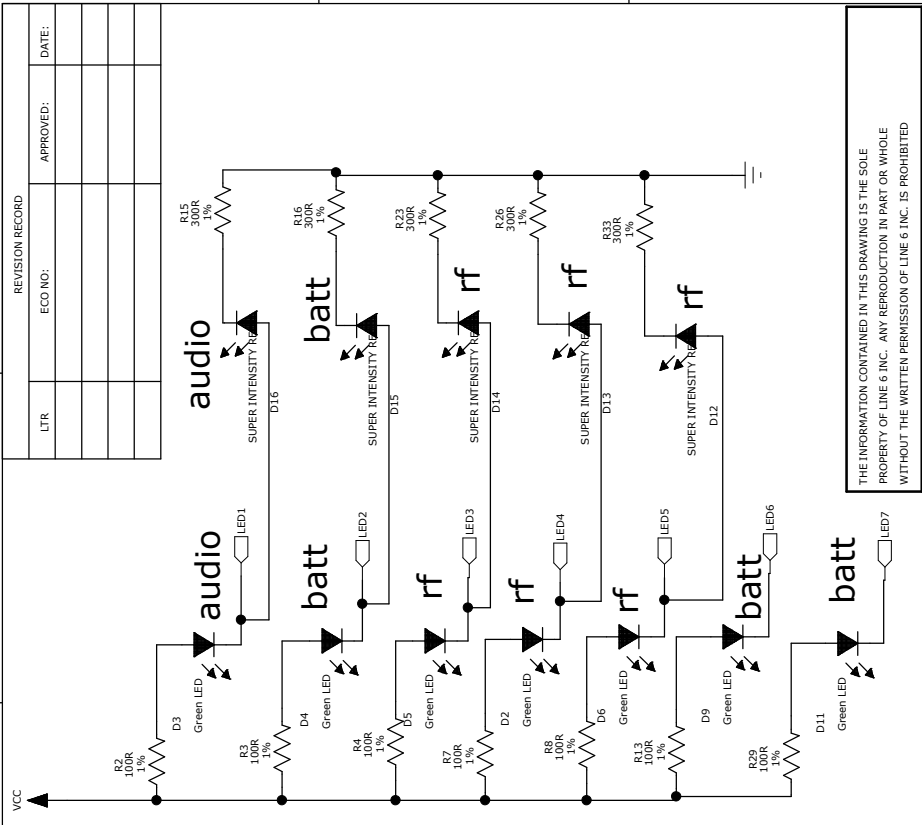
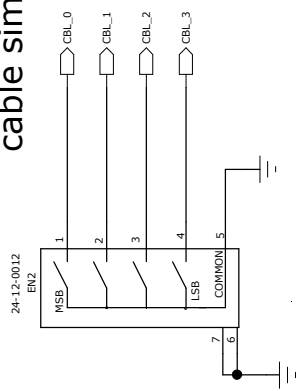
REV: C

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channel select



cable sim



REVISION RECORD		
LTR	ECO NO:	APPROVED:

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COMPANY: **LINE 6**

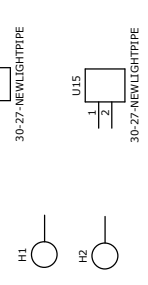
TITLE: **Nikola Main RX**

PROGRAM: **UI connection**

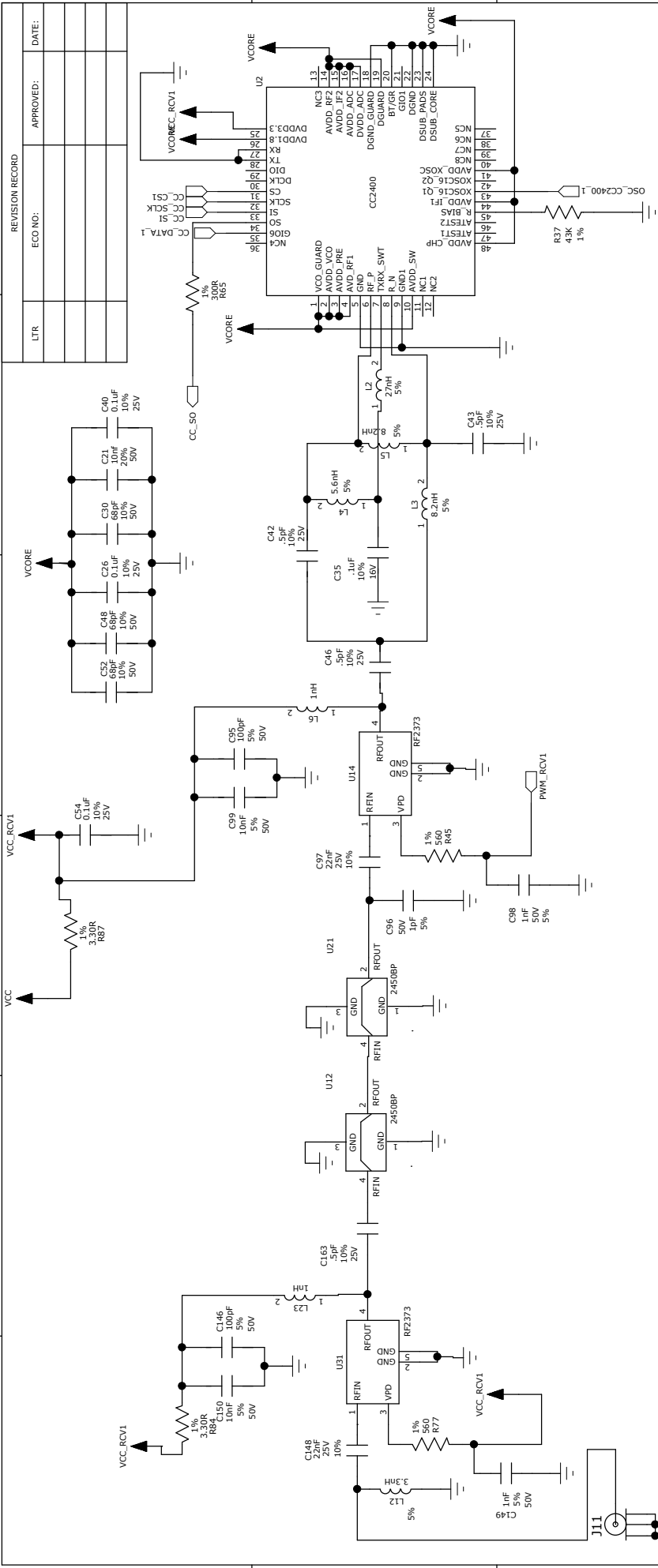
REV:	C
FILENAME:	Product Directory/PCBs/Board Directory/File.sch
SCALE:	1:1
SIZE:	B
PART NUMBER:	35-00-5009
SHEET:	5 of 7

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DRAWN:	G. Coker	DATED:	Date
CHECKED:	Initials	DATED:	Date



6 5 4 3 2 1



LINE 6

Nikola Main RX
RF Section Rev. #1

PROGRAM: PADS POWER LOGIC V4.0

FILENAME: Product Directory/PCBs/Board Directory/File.sch

SCALE: 1:1 SIZE: B PART NUMBER: 35-00-5009 SHEET: 6 OF 7

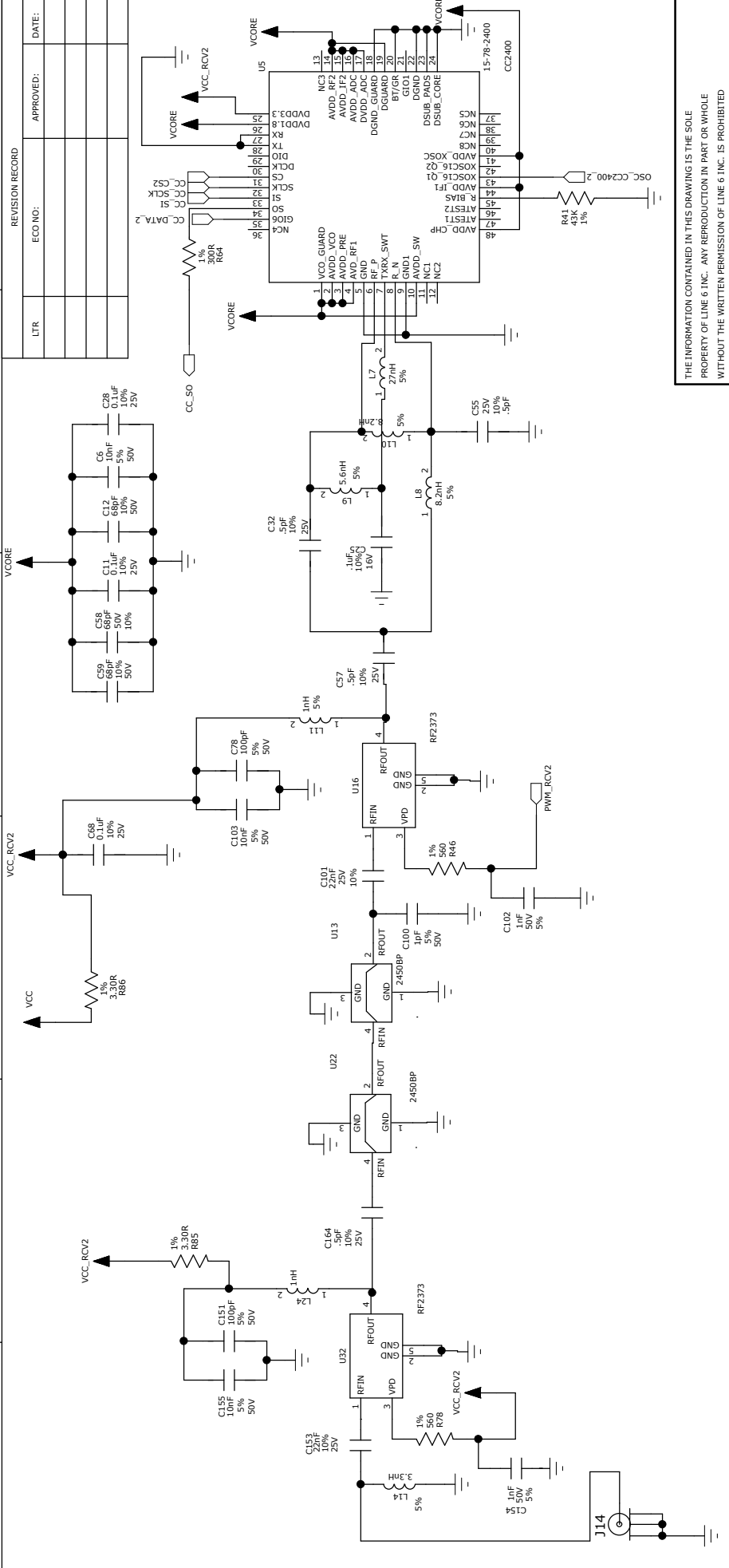
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DRAWN: G. Coker
CHECKED: Initials

DATE: Date

DATE: Date

REV: C



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COMPANY: **LINE 6**

TITLE: **Nikola Main RX**
RF Section Rev. #2

PROGRAM: **PADS POWER LOGIC V4.0**

SCALE: **1:1** SIZE: **B** PART NUMBER: **35-00-5009** SHEET: **7** OF **7**

REV: **C**

FILENAME: Product Directory/PCBs/Board Directory/File.sch

DATE:	Date
DRAWN:	G. Coker
CHECKED:	Initials

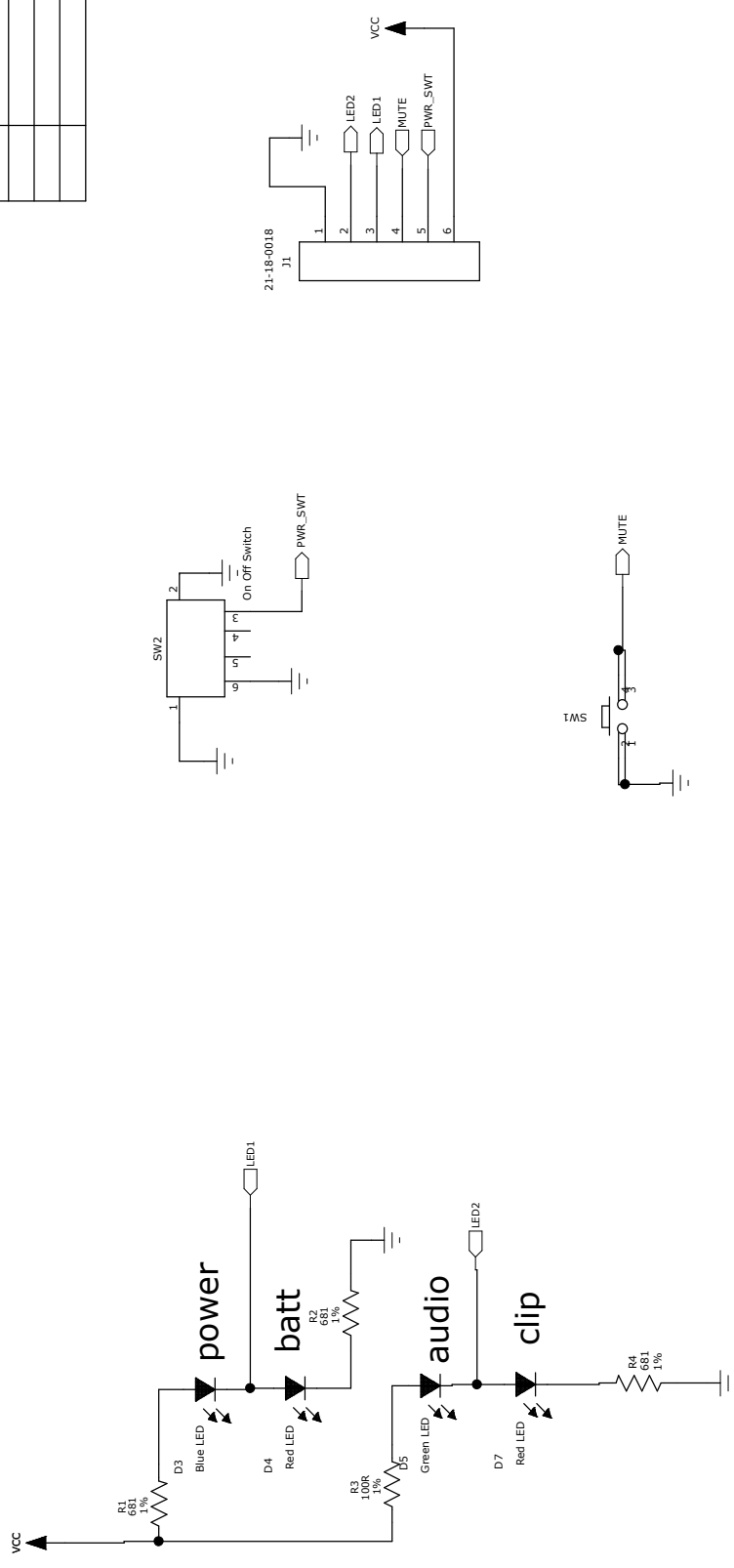
PRELIMINARY DRAWINGS
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REVISION RECORD	
LTR	DATE:
ECO NO:	APPROVED:

1 2 3 4 5 6

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6 5 4 3 2 1



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LINE 6

MDN Bodypack TX UI
UI Section

COMPANY:	LINE 6
TITLE:	MDN Bodypack TX UI UI Section
PROGRAM:	PADS POWER LOGIC V4.0
FILENAME:	Product Directory/PCBs/Board Directory/File.sch
SCALE:	1:1 SIZE: B PART NUMBER: 35-00-5013 SHEET: 1 OF 1

**PRELIMINARY DRAWINGS
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DRAWN:	G. Coker	DATE:	Date
CHECKED:	Initials	DATE:	Date

D

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B

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99-123-0105 - L9-1 RELAY G50 US

Level	Item	Part Number	Qty	UOM	Refdes	Find	Rev	Description
1	1	11-22-0005	2				RevB	ANTENNA 2400-2500 3 SMA MALE OR RPSMA MALE OR BNC MALE N/A DIPOLE
1	2	11-30-8620	1				A1	AC ADAPTER 100-240VAC 50-60HZ 9.0VDC 500MA DC-1G US
1	3	11-40-0006	2					BATTERY 1.5V AA ECO CELL ALKALINE
1	4	21-34-0142	1				C	1/4 INCH TO TA4F 24 INCH
1	5	30-48-0010	4					FOOT RUBBER w/ADHESIVE 3M BUMPON SJ-5012 (OR EQUIV)
1	6	40-00-0235	1				A	MANUAL USER NIKOLA L9-1
1	7	40-00-0239	1				H	MANUAL USER MDN TX
1	8	40-00-1000	1				H	CARD WARRANTY LINE 6
1	9	40-01-0016	1				C	CARD LICENSE-AGREEMNT END-USER ALL-PRODUCTS
1	10	40-03-2000	1				F	CARD REGISTRATION US
1	11	40-10-0305	1				B1	CARTON GIFT NIKOLA L9-1
1	12	40-10-0315	0.3				A	CARTON MASTER NIKOLA L9-1
1	13	40-15-0052	1				B	FOAM INSERT GIFT BOX NIKOLA L9
1	14	40-15-0053	1				B	FOAM INSERT COVER GIFT BOX NIKOLA L9
1	15	40-20-4008	1					BAG PLASTIC 240 x 260 MM 2 MIL CLEAR
1	16	40-25-0082	1				A	LABEL ROUND 1.75" TRANSPARENT
1	17	40-25-0102	1.33					LABEL BAR CODE UPC 1-PANEL LTX 16-18713710P0 (42MM X 27MM)
1	18	40-30-0011-1	4				A	LABEL SERIAL NUMBER 34MM X 8MM
1	19	59-00-0091	1				F	ASSY UNIT COMPLETE MDN TX L8 L9 L11
2	1	21-29-3048-BLK	1				D	HOOK-UP WIRE 24AWG STRAND BLACK
2	2	21-29-3048-RD	1				D	HOOK-UP WIRE 24AWG STRAND RED
2	3	21-32-0006	1					CBL FLAT FLEX 10 POS 2" .50MM
2	4	21-32-0007	1					CBL FLAT FLEX 6POS 3" .5MM
2	5	30-00-0239	1				C	SCREW #6 32 UNC 0.2 INCH STAINLESS STEEL NI
2	6	30-00-0240	4				A	SCREW PAN HEAD #2 56 UNC PH 0.35 INCH STEEL
2	7	30-00-0241	1				A	SCREW PAN HEAD #2 56 UNC PH 0.25" STEEL ZN
2	8	30-00-0242	2				A	SCREW PAN HEAD #2 56 UNC PH 0.15 INCH STEEL
2	9	30-00-0243	2				B	SCREW FLAT HEAD TAPING #2 32 UNC PH 0.15 INCH STEEL
2	10	30-27-0419	1				D	BEZEL LCD 38.85MM TRANSPARENT ABS 15.70MM 1.0 THK CLEAR SMOOTH
2	11	30-27-0420	1				B	CAP POWER SWITCH 9.80MM POLYETHYLENE 3.50MM 0.50MM THK BLACK BLISTER PLASTIC
2	12	30-27-0422	1				B	HOLDER BATTERY 51.48MM HIGH IMPACT ABS 33.17MM 12.80MM BLACK SMOOTH
2	13	30-27-0423	1				D	LATCH BATTERY DOOR 23.69MM ABS 9.60MM 5.13MM BLACK SMOOTH
2	14	30-27-0424	2				D	LIGHTPIPE 9.65MM TRANSPARENT ABS 2.39MM 5.06MM CLEAR SMOOTH
2	15	30-27-0426	1				D	ANTENNA JACK ABS OVERMOLD RUBBER
3	1	41-00-0263	0				A	ARTWORK ANTENNA JACK OVERMOLD RUBBER TX
2	16	30-27-0431	1				E	DOOR BATTERY INSERT 31.8MM ABS 16.9MM 4.1MM BLACK SMOOTH
2	17	30-27-0483	1				A	PIN LATCH 5.0MM ABS 5.0MM 5.0MM
2	18	30-27-0484	1				C	ACTUATOR BATTERY DOOR 31.2MM ABS+PC 6.35MM 4.92MM BLACK OVERMOLDED RUBBER
2	19	30-51-0433	1				F	SHELL BOTTOM ADC12 OR EQUIV POLISHED. PAINTED RUBBERIZED LINE 6 APPROVED
3	1	41-00-0287	0				C	SAMPLE 68.83MM 10.16MM 85.25MM
2	20	30-51-0434	1				J	ARTWORK SHELL BOTTOM TX L8-1 L9-1 L11-2
3	1	41-00-0262	1				E	SHELL TOP MDN TRANSMITTER
2	21	30-51-0436	1				D	ARTWORK SHELL TOP TX L8-1 L9-1 L11-2
2	22	30-51-0437	1				B	CONTACT BATTERY DOOR 0.5MM THK STAINLESS STEEL NICKEL PLATE NICKEL 14.99MM 1.65MM 30-23MM
2	23	30-51-0438	1				B	HINGE PIN BATTERY DOOR TYPE 316 SST N/A N/A 1.00MM DIA 12.00MM LG N/A
2	24	30-51-0454	1				E	SPRING BATTERY DOOR SPRING STEEL N/A N/A 0.40MM THK 1.14MM I.D. COILS 5 COILS
2	25	30-51-0473	2				D	DOOR BATTERY MDN TRANSMITTER
2	26	30-51-0487	1				A	BATTERY TERMINAL CONNECTING SPRING STEEL NICOL PLATING SILVER 6.5MM 0.2 MM 5.2MM L8 TX
2	27	30-51-0488	1				E	SPRING LATCH SPRING STEEL 3.5MM 17.2MM 1.58MM
								CLIP BELT SPRING STEEL NICKLE 18.0MM 56.0MM 8.1MM

2	28	30-51-0489	2		C	WASHER PCB SUPPORT STAINLESS STEEL SMOOTH NICKEL 5.2MM 3.75MM
2	29	30-51-0492	1		B	CLIP RETAINING STAINLESS STEEL 0.5MM 4.5MM 3.0MM
2	30	30-60-0006	1		A	LOGO LINE 6 SML 38.35 x 7.98MM w/ADHSV BRUSHED/BLK FINISH AL
2	31	30-63-0052	2		A	FOAM PAD 8 X 3.8 X 1.8 MM MDN
2	32	30-75-0070	1		E	BUTTON DOUBLE 951-U UNCOLORED SILICONE RUBBER BLACK 10.01MM 8.23MM 29.37MM
2	33	30-75-0071	1		E	BUTTON SINGLE 951-U UNCOLORED SILICONE RUBBER BLACK 10.01MM 6073MM 14.13MM
2	34	40-30-0011-1	1		A	LABEL SERIAL NUMBER 34MM X 8MM
2	35	50-02-5010	1		C	PCBA TRANSMITTER INPUT MARCONI DEFOREST NIKOLA
3	1	03-60-0478	1	C27		CAP TANT 47UF 6.3V 10% SMD
3	2	21-09-0006-1	1	J1	XO	JACK MINI XLR MALE 4 PIN PCB MOUNT RA BLACK.
3	3	21-18-0155	1	J2		CONN AUDIO OR BATTERY 4PIN RA SM
3	4	35-00-5010	1		C	PCB TRANSMITTER INPUT MARCONI DEFOREST NIKOLA
2	36	50-02-5011	1		J	PCBA TRANSMITTER MAIN MARCONI DEFOREST NIKOLA
3	1	01-26-1000	9	R5-R6,R10,R13,R17-R18,R32,R34,R39	XO	RES 100 OHM 1/16W 1% 0402 SMD
3	2	01-26-1001	4	R9,R23,R33,R48		RES 1.00K 1% 0402
3	3	01-26-1002	6	R1-R2,R8,R20,R22,R40		RES 10.0K 1% 0402
3	4	01-26-1003	2	R3,R26		RES 100K 1% 0402
3	5	01-26-10R0	3	R19,R21,R36	XO	RES 10.0 OHM 1/16W 1% 0402 SMD
3	6	01-26-1304	2	R14-R15		RES 1.30M 1% 0402
3	7	01-26-1500	2	R16,R50		RES 150R 1% 0402
3	8	01-26-1502	1	R12	XO	RES 15.0K 1% 0402
3	9	01-26-1802	2	R24,R30		RES 18.0K 1% 0402
3	10	01-26-2700	1	R31	XO	RES 270 OHM 1/16W 1% 0402 SMD
3	11	01-26-30R0	1	R52	XO	RES 30.0 OHM 1/16W 1% 0402 SMD
3	12	01-26-3903	2	R4,R28	XO	RES 390K 1% 0402
3	13	01-26-3R30	2	R27,R38		RES 3.3R 1% 0402
3	14	01-26-4701	1	R51		RES 4.7K 1% 0402
3	15	01-26-5602	1	R25		RES 56K 1% 0402
3	16	01-26-5622	1	R11	XO	RES 56.2K OHM 1/16W 1% 0402 SMD
3	17	01-26-6800	1	R7	XO	RES 680 OHM 1/16W 1% 0402 SMD
3	18	03-46-0104	1	C15		CAP X7R 0.1uF 50V 20% 1206
3	19	03-60-0226	6	C2,C25,C28-C29,C34,C60		CAP TANT 22UF 10V 10% SM-A
3	20	03-60-0478	2	C27,C31		CAP TANT 47UF 6.3V 10% SMD
3	21	03-60-0685	3	C9,C32,C45		CAP TANT 6.8uF 10V 20% SM-A
3	22	03-66-6807	1	C46		CAP TANT 680uF 6.3V 10% LO ESR SM-D
3	23	03-70-0001	18	C1,C3,C5,C7,C11-C13,C16,C23-C24,C44,C49,C56,C61-C64,C67		CAP X7R .1UF 16V 10% 0402
3	24	03-70-0012	2	C4,C6		CAP NPO 12PF 50V 5% 0402
3	25	03-70-0047	2	C8,C47		CAP NPO 47PF 50V 5% 0402
3	26	03-70-0056	11	C17,C35-C37,C40-C43,C48,C50,C52		CAP NPO 5.6PF 25V 5% 0402
3	27	03-70-1000	7	C10,C14,C18-C22		CAP X5R 1UF 10% 0402
3	28	03-70-1471	1	C33	XO	CAP NPO 470PF 50V 5% 0402
3	29	03-70-15R0	2	C26,C30		CAP NPO 15PF 50V 1% 0402
3	30	03-72-0027	1	C38		CAP X5R .027UF 10V 10% 0402
3	31	03-72-0270	1	C39		CAP X7R 2.7NF 16V 5% 0402
3	32	04-01-0005	2	L1,L6		INDUCTOR 10uH 10% 1210 NIN SER IES SM
3	33	06-22-4148	2	D4-D5		DIODE ULTRAFast 100V 0.6A SOD- SOD-123 SM
3	34	06-23-0520	2	D6-D7		DIODE SCHOTTKY 0.5A 20V SOD-12 3 SM
3	35	09-14-3495	1	U7		TRANS MOSFET P-CHAN 20V 7A SM 0.024-OHM TSOP-6
3	36	11-00-0016	1	Y1		CRYSTAL 16MHz 10pf SMD
3	37	12-54-6233	1	U2		IC OP AMP SINGLE 60MHz R-R SOT 23-6 SM
3	38	12-54-6240	1	U1		IC OP AMP SINGLE 18MHz R-R CMO S TSOT-23 SM
3	39	12-64-1803	1	U3		IC CONVERTER A/D 24BIT SSOP-20 SM
3	40	12-70-0403	1	U8		IC Unregulate Charge Pump Volt age Inverter 250kHz Sot-23

3	41	12-70-3526	2	U4-U5		IC STEP UP DC-DC CONVERTER 500mA 1MHz SM DFN-6
3	42	15-65-0003	1	U10		IC DUAL INVERTER SM TSOP-6
3	43	18-24-0006	1	D1		LED AMBER 0603 SM
3	44	18-30-0016	1	J2	X0	DISPLAY LCD 21.65X13 POS- IMAGE RGB BACKLIGHT
3	45	21-18-0015	1	J4		CONN FPC/FFC 10POS .5MM RA BOT TOM CONTACT SM
3	46	21-18-0018	1	J3		CONN FPC/FFC 6POS .5MM RA BOTTOM CONTACT SM
3	47	30-51-0467	1	H8	D	SHIELD CAN 15 X 10.8 X 2.4 MM L8 TX
3	48	30-51-0522	1		X0	CAP CAN 15.42MM X 9.55MM X 2.2MM MDN L8 TX
3	49	35-00-5011	1		E	PCB TRANSMITTER MAIN MARCONI DEFOREST NIKOLA
3	50	45-01-0053	1	U9	X0	IC PROGRAMMED MCU FLASH 32K 64LQFP FOR L10 TX
4	1	15-84-0004	1			IC MCU ARM7 32BIT 32K 64LQFP SM
2	37	50-02-5012	1		B	PCBA TRANSMITTER RF MARCONI DEFOREST NIKOLA
3	1	01-26-2700	1	R43	X0	RES 270 OHM 1/16W 1% 0402 SMD
3	2	01-26-3651	1	R54	X0	RES 3.65K OHM 1/16W 1% 0402 SMD
3	3	01-26-3R30	1	R15		RES 3.3R 1% 0402
3	4	01-26-4302	1	R37		RES 43.0K 1% 0402
3	5	03-70-0001	4	C26,C35,C40,C54		CAP X7R .1UF 16V 10% 0402
3	6	03-70-0005	2	C42-C43		CAP NPO .5PF 10% 0402
3	7	03-70-0056	1	C4		CAP NPO 5.6PF 25V 5% 0402
3	8	03-70-0068	3	C30,C48,C52		CAP NPO 68PF 50V 5% 0402
3	9	03-70-0100	3	C21,C36,C57		CAP X7R 10NF 5% 0402
3	10	03-70-08R2	2	C46,C55		CAP NPO 8.2PF 5% 0402
3	11	03-70-1000	1	C58		CAP X5R 1UF 10% 0402
3	12	04-01-0027	1	L2		INDUCTOR MULTILAYER 27NH 5% 0402 SM
3	13	04-01-0056	1	L4		INDUCTOR MULTILAYER 5.6NH 5% 0402 SM
3	14	04-01-0082	2	L3,L5		INDUCTOR MULTILAYER 8.2NH 5% 0402 SM
3	15	04-01-0360	1	L8		INDUCTOR MULTILAYER 3.6NH 5% 0402 SM
3	16	04-01-1500	1	L9		INDUCTOR MULTILAYER 1.5NH 5% 0402
3	17	11-00-2450	1	U3		Filter 2.4GHz Bandpass Ceramic 0805
3	18	11-22-0007	1	TP27	A	ANTENNA 2.4 GHZ
3	19	12-31-5373	1	U5		IC RF AMP DFN-6 SM 2.4Ghz RF5373
3	20	15-78-2400	1	U2		IC 2.4 GHz RF Transceiver QFN-48
3	21	21-18-0015	1	J4		CONN FPC/FFC 10POS .5MM RA BOT TOM CONTACT SM
3	22	35-00-5012	1		B	PCB TRANSMITTER RF MARCONI DEFORETS NIKOLA
2	38	50-02-5013	1		REV A	PCBA TRANSMITTER UI MARCONI DEFOREST NIKOLA
3	1	01-25-1000	1	R3		RES 100R 1% 0603
3	2	01-25-6810	3	R1-R2,R4		RES 681R 1% 0603
3	3	18-20-0006	2	D4,D7		LED RED 1.6 x 0.8 x 0.8MM 0603 SM
3	4	18-24-0005	1	D5		LED GREEN 1.6X.8X.8MM 0603 SM
3	5	18-25-0000	1	D3		LED BLUE 1.15MM x 0.8MM CLEAR 468NM 0603 SM
3	6	21-18-0018	1	J1		CONN FPC/FFC 6POS .5MM RA BOTTOM CONTACT SM
3	7	24-09-1271	1	SW2		SWITCH SLIDE SPDT NON-SHORTING PC MOUNT 2POS VERTICAL TH
3	8	35-00-5013	1		C	PCB TRANSMITTER UI MARCONI DEFOREST NIKOLA
1	20	59-00-0131	1		F	ASSY UNIT COMPLETE RECEIVER NIKOLA L9
2	1	30-00-0208	4		X0	SCREW PAN HEAD PHILLIPS #6 32 UNC .625 STEEL
2	2	30-00-0209	6		X0	SCREW PAN HEAD PHILLIPS #3 48 UNC .250 STEEL
2	3	30-00-0210	2		X0	SCREW PAN HEAD PHILLIPS #3 48 UNC .1875 STEEL
2	4	30-03-0043	2		D	WASHER ENCODER STOP 12MM O.D. 6MM I.D. 1MM THK STEEL
2	5	30-27-0099	1		A	ANTENNA PLUG LEFT 19MM DIA 12MM HT
2	6	30-27-0395	6		D	LIGHT PIPE CENTER RX L10
2	7	30-27-0396	1		B	LIGHT PIPE CENTER SHIELD RX L1 0
2	8	30-27-0397	2		D	LIGHT PIPE TOP RX L10
2	9	30-27-0398	2		B	LIGHT PIPE TOP SHIELD RX L10
2	10	30-27-0415	1		A	ANTENNA PLUG RIGHT PLASTIC 19MM DIA 12MM HT

2	11 30-27-0416	1		D	PANEL CONTROL 117MM PLASTIC 66MM 2.5 THK
2	12 30-45-0026	2		C	KNOB SMALL 18.5MM DIA 14.62MM HT ABS
2	13 30-51-0431	1		E	CHASSIS TOP NIKOLA RECEIVER ALUMINUM L9
3	1 41-00-0266	0		B	ARTWORK SHELL TOP RX L9-1
2	14 30-51-0432	1		C	CHASSIS BOTTOM NIKOLA RECEIVER ALUMINUM L9
3	1 41-00-0267	0		X0	ARTWORK SHELL BOTTOM RX L9-1
2	15 30-60-0006	1		A	LOGO LINE 6 SML 38.35 x 7.98MM w/ADHSV BRUSHED/BLK FINISH AL
2	16 40-25-0054	1			STICKER QC PASSED OVAL 9mmH x 13mmW
2	17 40-25-0178	1		A	GENERAL COMPLIANCE STICKER
2	18 40-25-0205	1		A	STICKER FCC/SERIAL RX NIKOLA
2	19 40-30-0011-1	1		A	LABEL SERIAL NUMBER 34MM X 8MM
2	20 50-02-5009	1		F	PCBA RECEIVER NIKOLA L9
3	1 01-25-0270	2	R5,R31		RES 270R 1% 0603
3	2 01-25-03R3	5	R38,R84-R87		RES 3.3R 1% 0603
3	3 01-25-0681	1	R42	X0	680 R 1% 0603
3	4 01-25-1000	14	R2-R4,R7-R8,R13,R29,R34-R35,R54,R58-R59,R69-R70		RES 100R 1% 0603
3	5 01-25-1001	13	R10-R11,R17,R19-R20,R24,R30,R36,R40,R48-R50,R55		RES 1.00K 1% 0603
3	6 01-25-1002	3	R9,R53,R75		RES 10.0K 1% 0603
3	7 01-25-1003	1	R62		RES 100K 1% 0603
3	8 01-25-10R0	1	R27	A	RES 10.0R 1% 0603
3	9 01-25-1304	2	R6,R21		RES 1.30M 1% 0603
3	10 01-25-1800	2	R14,R32	A	RES 180R 1% 0603
3	11 01-25-1802	1	R43	A	RES 18K 1% 0603
3	12 01-25-2001	2	R79-R80	A	RES 2.00K 1% 0603
3	13 01-25-20R0	1	R44	A	RES 20.0R 1% 0603
3	14 01-25-2402	2	R71-R72	A	RES 24K 1% 0603
3	15 01-25-2490	2	R51,R56	A	RES 249R 1% 0603
3	16 01-25-3000	11	R12,R15-R16,R18,R22-R23,R26,R33,R39,R64-R65	A	RES 300R 1% 0603
3	17 01-25-3010	2	R52,R60	A	RES 301R 1% 0603
3	18 01-25-3903	1	R61		RES 390K 1% 0603
3	19 01-25-3R00	2	R1,R28	X0	RES 3.00 OHM 1/10W 1% 0603 SMD
3	20 01-25-4300	2	R37,R41		RES 43K 1% 0603
3	21 01-25-4700	3	R57,R67-R68		RES 470R 1% 0603
3	22 01-25-4992	1	R47		RES 49.9K 1% 0603
3	23 01-25-5600	4	R45-R46,R77-R78		RES 560R 1% 0603
3	24 03-12-1477	1	C14		CAP ELEC 470uF 16V 20% RADIAL 8/12/5
3	25 03-56-0005	2	C50,C90		CAP NPO 0.5pF 50V 5% 0603
3	26 03-56-0027	1	C39		CAP NPO 2.7nF 50V 5% 0603
3	27 03-56-0100	2	C7,C77		CAP NPO 10pF 50V 5% 0603
3	28 03-56-0101	4	C78,C95,C146,C151		CAP NPO 100pF 50V 5% 0603
3	29 03-56-0102	4	C98,C102,C149,C154		CAP NPO 1nF 50V 5% 0603
3	30 03-56-0103	5	C6,C99,C103,C150,C155		DELETED - DO NOT USE - USE 03-50-0103
3	31 03-56-0150	2	C66,C94		CAP NPO 15pF 50V 5% 0603
3	32 03-56-0271	1	C38		CAP X7R 27NF 25V 10% 0603
3	33 03-56-0471	2	C44,C82	A	CAP NPO 470pF 50V 5% 0603
3	34 03-56-1000	2	C81,C89		CAP NPO 1000PF (1NF) 25V 1% 0603
3	35 03-58-0103	1	C21		CAP X7R 10nF 50V 10% 0603
3	36 03-58-0104	44	C3-C5,C11,C13,C16,C22-C24,C26,C28,C33,C36,C40,C45,C49,C51,C54,C56,C60-C64,C67-C68,C71,C74-C76,C83,C85-C86,C125-C129,C133,C137-C138,C141,C169-		CAP X7R 0.1uF 25V 10% 0603

3	37	03-58-0106	4	C18-C20,C93		CAP X7R 1.0uF 16V 10% 0603
3	38	03-58-0107	3	C10,C167-C168		CAP X7R 1.0uF 50V 10% 0603
3	39	03-58-0223	1	C8		CAP X7R 22nF 25V 10% 0603
3	40	03-58-0392	2	C132,C171	X0	CAP X7R 3.9NF 50V 10% 0603
3	41	03-58-0472	2	C15,C17		CAP X7R 4.7nF 50V 10% 0603
3	42	03-58-0680	6	C12,C30,C48,C52,C58-C59		CAP X7R 68pF 50V 10% 0603
3	43	03-60-0685	1	C34		CAP TANT 6.8uF 10V 20% SM-A
				C1-C2,C9,C29,C31,C37,C41,C47,C53,C65,C69- C70,C72-C73,C134,C140,C172		CAP TANT 22uF 10V 10% SM-B
3	44	03-62-0226	17	C25,C35		CAP X7R .1UF 16V 10% 0402
3	45	03-70-0001	2	C32,C42-C43,C46,C55,C57,C163-C164		CAP NPO .5PF 10% 0402
3	46	03-70-0005	8	C96,C100		CAP NPO 1PF 5% 0402 50V
3	47	03-70-0010	2	C97,C101,C148,C153		CAP X7R 22NF (.022UF) 25V 10% 0402
3	48	03-70-0022	4	C27		CAP NPO 5.6PF 25V 5% 0402
3	49	03-70-0056	1	L22		INDUCTOR 10uH 10% 1210 NIN SER IES SM
3	50	04-01-0005	1	L6,L11,L23-L24		INDUCTOR MULTILAYER 1NH +/-2NH 0603 SM
3	51	04-01-0019	4	L12,L14		INDUCTOR WIREWOUND 3.3NH 5% 0402 SM
3	52	04-01-0021	2	L2,L7		INDUCTOR MULTILAYER 27NH 5% 0402 SM
3	53	04-01-0027	2	L4,L9		INDUCTOR MULTILAYER 5.6NH 5% 0402 SM
3	54	04-01-0056	2	L3,L5,L8,L10		INDUCTOR MULTILAYER 8.2NH 5% 0402 SM
3	55	04-01-0082	4	D1,D7,D10		DIODE ULTRAFast 100V 0.6A SOD- SOD-123 SM
3	56	06-22-4148	3	D8,D21		DIODE SCHOTTKY 0.5A 20V SOD-12 3 SM
3	57	06-23-0520	2	D19-D20		VARIABLE CAPACITANCE DIODE 10nA 6V SMD SS Mini 2P
3	58	06-25-0001	2	D17		DIODE RECTIFIER NRD4001 SMA/DO -214 SM
3	59	06-32-0000	1	Y1-Y2		CRYSTAL 16MHz 10pf SMD
3	60	11-00-0016	2	U12-U13,U21-U22		Filter 2.4GHz Bandpass Ceramic 0805
3	61	11-00-2450	4	U14,U16,U31-U32		IC RF AMP SOT-23-5 SM RF2373
3	62	12-31-2373	4	U1		IC VREG 1.2V-37V 1000mA DPAK T O-252 SM
3	63	12-50-0317	1	U20		IC VREG LINEAR LDO 1.2V 150mA SOT23-5 SM
3	64	12-52-8358	1	U3		IC OP AMP SINGLE 60MHZ R-R SOT 23-6 SM
3	65	12-54-6233	1	U7,U17		IC CONVERTER D/A 32 BIT 192KHZ PCM VSOP-30 SM
3	66	12-68-4390	2	U8		IC Unregulate Charge Pump Volt age Inverter 250kHz Sot-23
3	67	12-70-0403	1	U24		IC CONVERTER DC-DC REG 1A TSOT 23-6 SM
3	68	12-70-2734	1	U4,U10		IC DUAL INVERTER SM TSOP-6
3	69	15-65-0003	2	U2,U5		IC 2.4 GHz RF Transceiver QFN-48
3	70	15-78-2400	2	U9		IC MCU ARM7 32BIT 32K 64LQFP SM
3	71	15-84-0004	1	U18		IC FPGA 100 I/Os TQFP-144 SM
3	72	15-96-0025	1	D12-D16		LED RED 1.6 x 0.8 x 0.8MM 0603 SM
3	73	18-20-0006	5	D2-D6,D9,D11		LED GREEN 1.6X.8X.8MM 0603 SM
3	74	18-24-0005	7	D18		LED BLUE 1.15MM x 0.8MM CLEAR 468NM 0603 SM
3	75	18-25-0000	1	J1	A	JACK BARREL PCB MT 2.0MM DC PO WER PIN TH
3	76	21-00-0016	1	J3-J4		JACK 1/4" TRS PCB MOUNT 6 PIN HORIZONTAL W/CHROME HRDWARE TH
3	77	21-00-6617	2	J11,J14	X0	JACK BNC FEMALE 50 OHM PCB AU R/A TH W NUT & LOCK WASHER NICKEL HOUSING
3	78	21-06-0003	2	EN1-EN2	X0	ENCODER 16 POS BINARY ROTARY
3	79	24-12-0012	2	U23		RELAY 4-PIN SOP SM
3	80	24-15-0012	1	U19		SWITCH LOW POWER HIGH VOLTAGE ANALOG SWITCH
3	81	24-15-0013	1		C	PCB RECEIVER NIKOLA L9
3	82	35-00-5009	1			

L6D00222– NIKOLA Jr Rx L10 ASSEMBLY INSTRUCTIONS
59-00-1811 (RX L10)
Rev F



Top view

Special Notes

The instructions describe the electro-mechanical assembly of the NIKOLA RX L10 unit assembly (P/N 59-00-1811).

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- Part identifying notes are in this format: Description (Part Number)
- Drawings are not to scale.
- Torque value tolerance +/- 2.9 cm-kg. Do not over tighten any components.

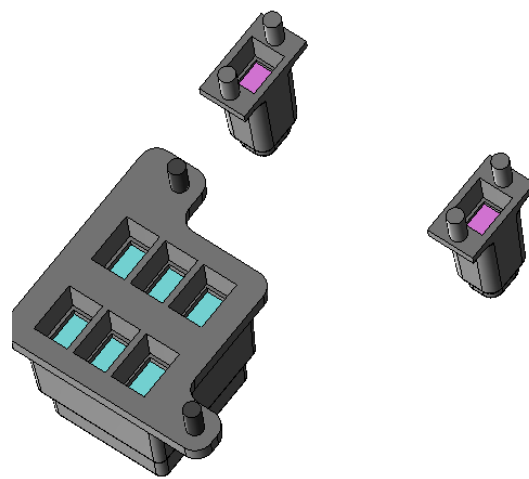
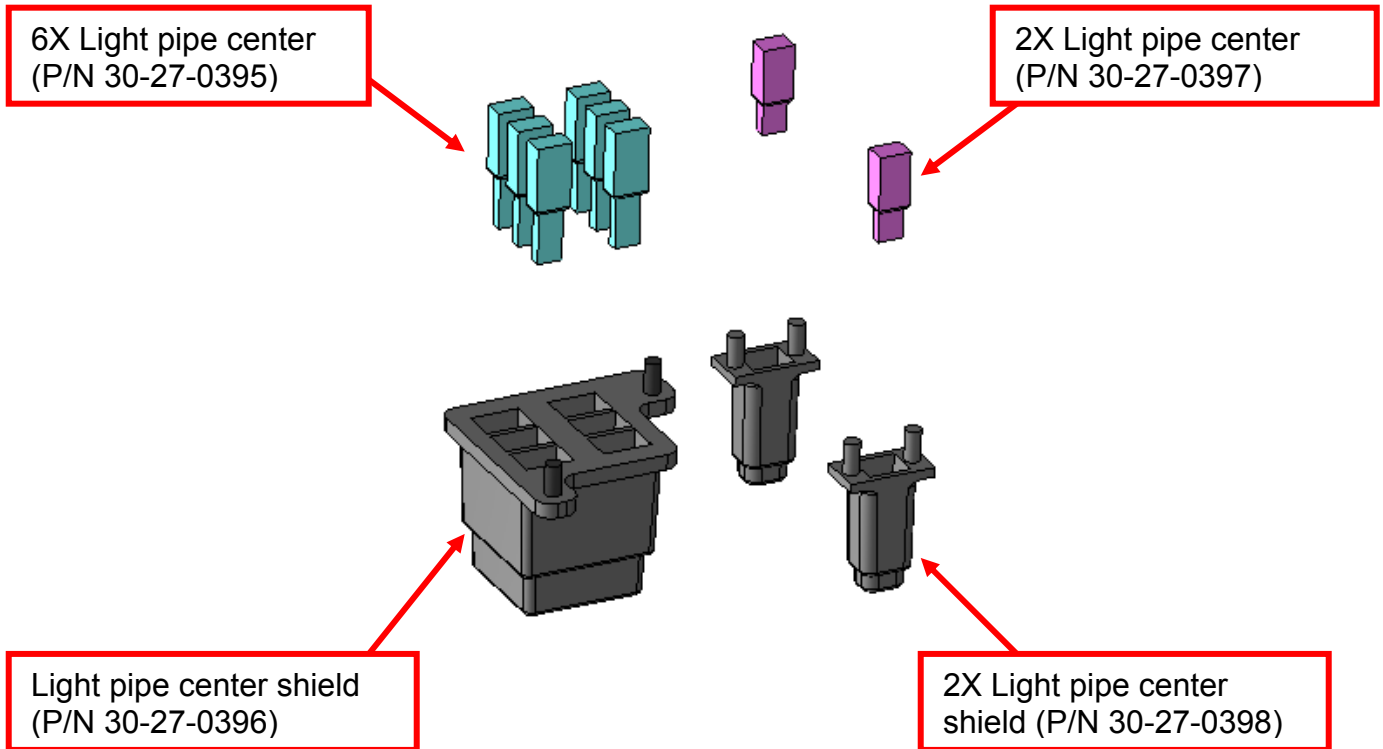
For clarity, not all component details are shown. This is especially true with respect to cable assemblies. They are often omitted from views to provide a clearer picture of the material discussed. Do not be confused by the absence (or unexpected presence) of any component in the illustrations in this book.



Revision Comment Sheet

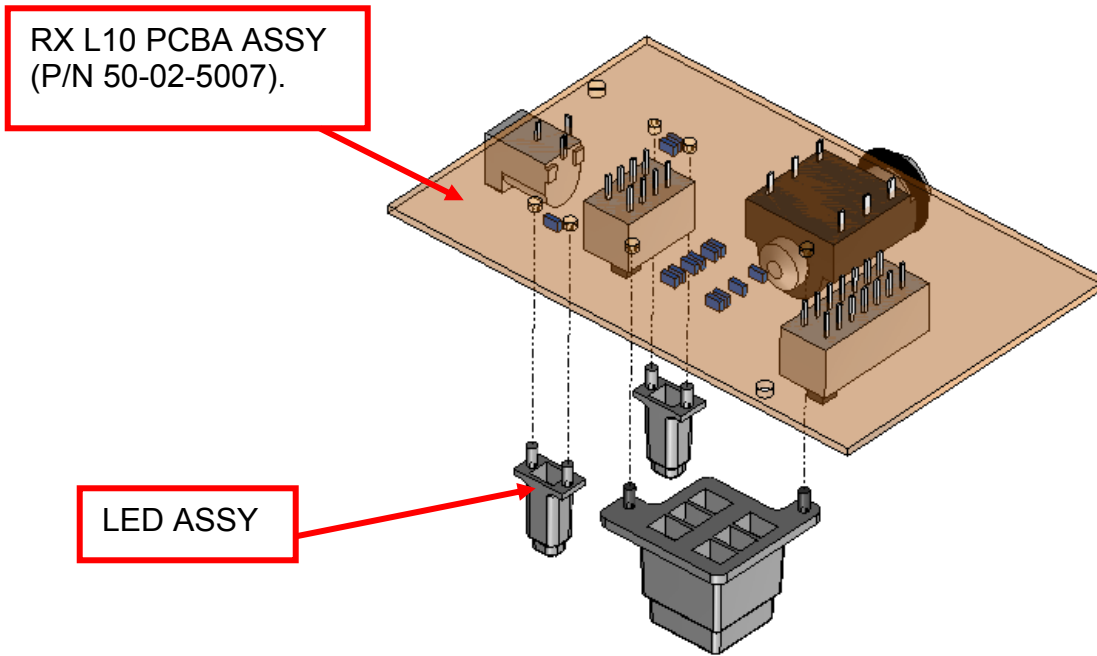
Revision	Changes
A	SEE ECO XXXXXX INITIAL RELEASE
B	SEE ECO XXXXXX
C	SEE ECO XXXXXX
D	SEE ECO Added FCC label placement
E	SEE ECO Added WEEE label placement
F	SEE ECO 0909004 - Updated Serial Label part number

STEP 1: Install six (6) light pipe center (P/N 30-27-0395) into light pipe center shield (P/N 30-27-0396). Then install two (2) light pipe top (P/N 30-27-0397) into two (2) light pipe top shield (P/N 30-27-0398) as shown below.

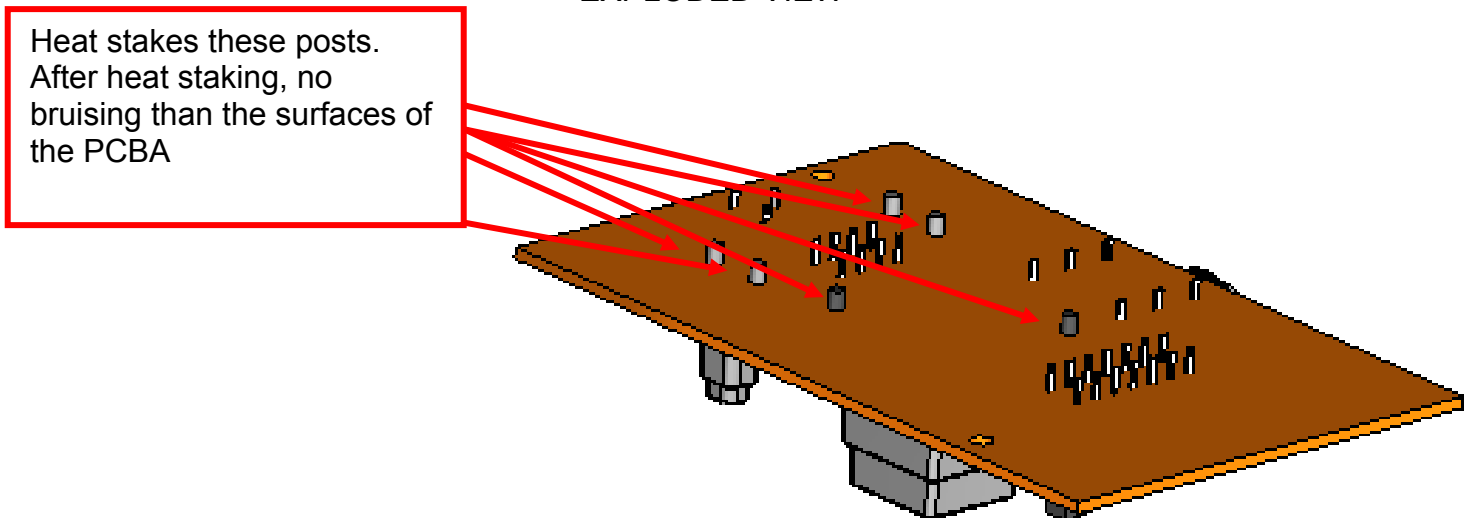


ASSEMBLED VIEW

STEP 2: Install LED ASSY after STEP 1 into RX L10 PCBA ASSY (P/N 50-02-5007). Then heat stake these posts. After heat staking, no bruising than the surfaces of the PCBA as shown below.

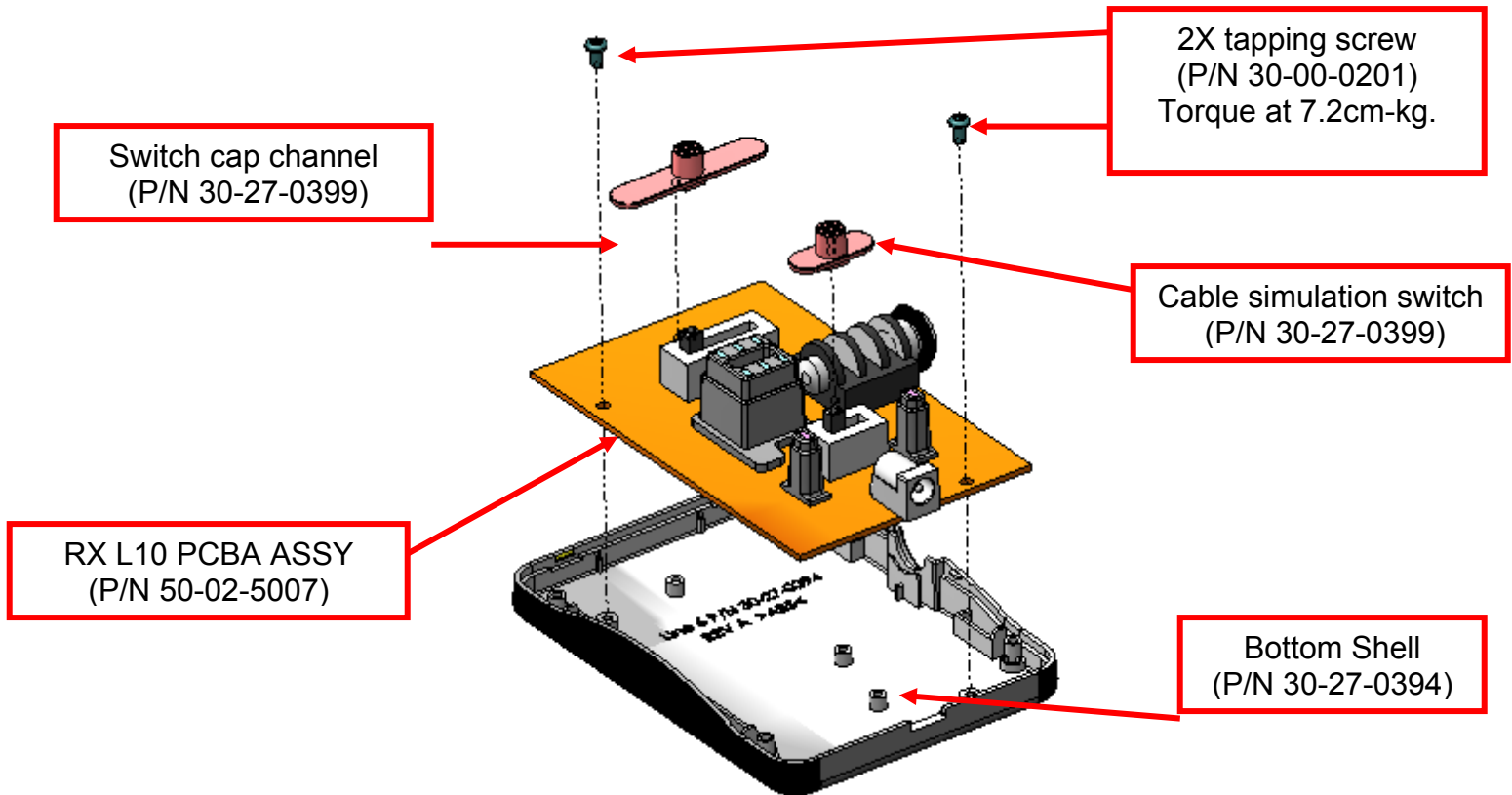


EXPLODED VIEW

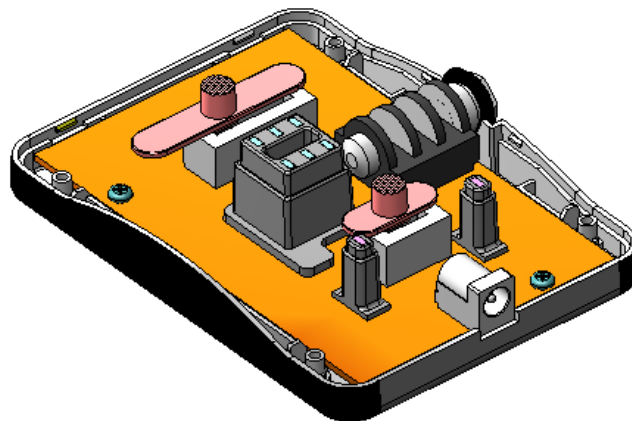


ASSEMBLED VIEW

STEP 3: Install cable simulation switch (P/N 30-27-0399) and Switch cap channel (P/N 30-27-0399) into RX L10 PCBA ASSY (P/N 50-02-5007). Then installation into bottom shell (P/N 30-27-0394) using two (2) 3-48 UNC x 0.1875" tapping screw (P/N 30-00-0201).

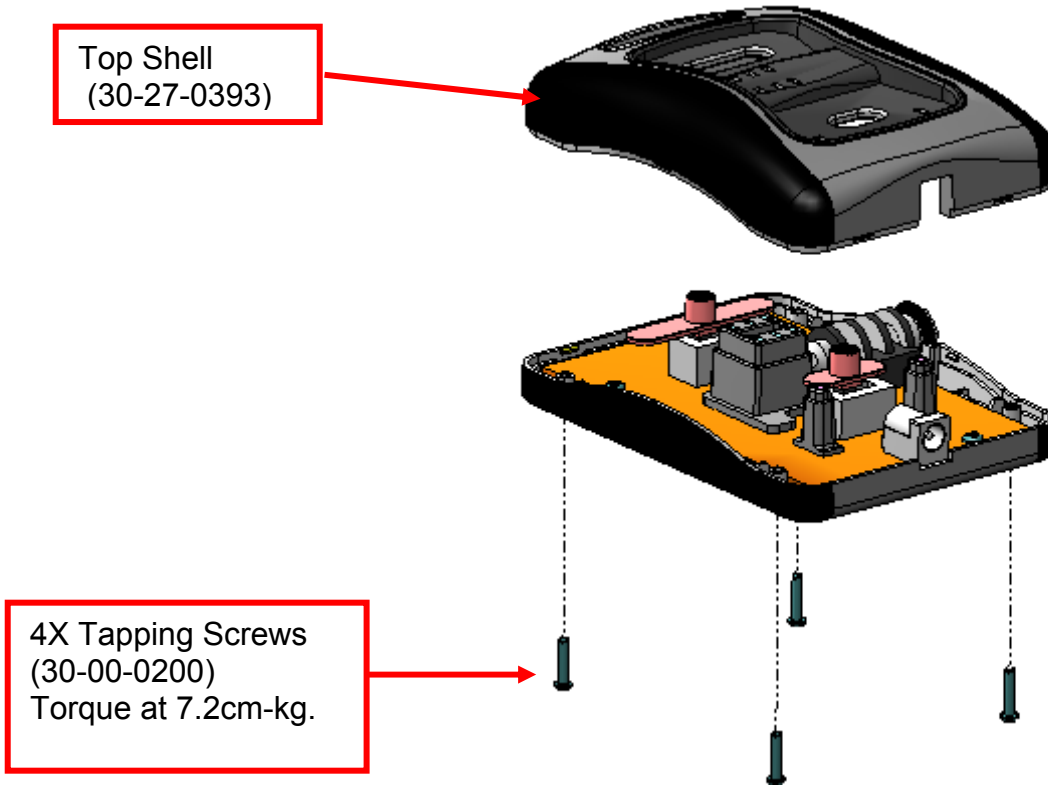


EXPLODED VIEW



ASSEMBLED VIEW

STEP 4: Install top shell (P/N 30-27-0393) after STEP 3 installation using four (4) 2-56 UNC x 0.4375 tapping screws (P/N 30-00-0200).



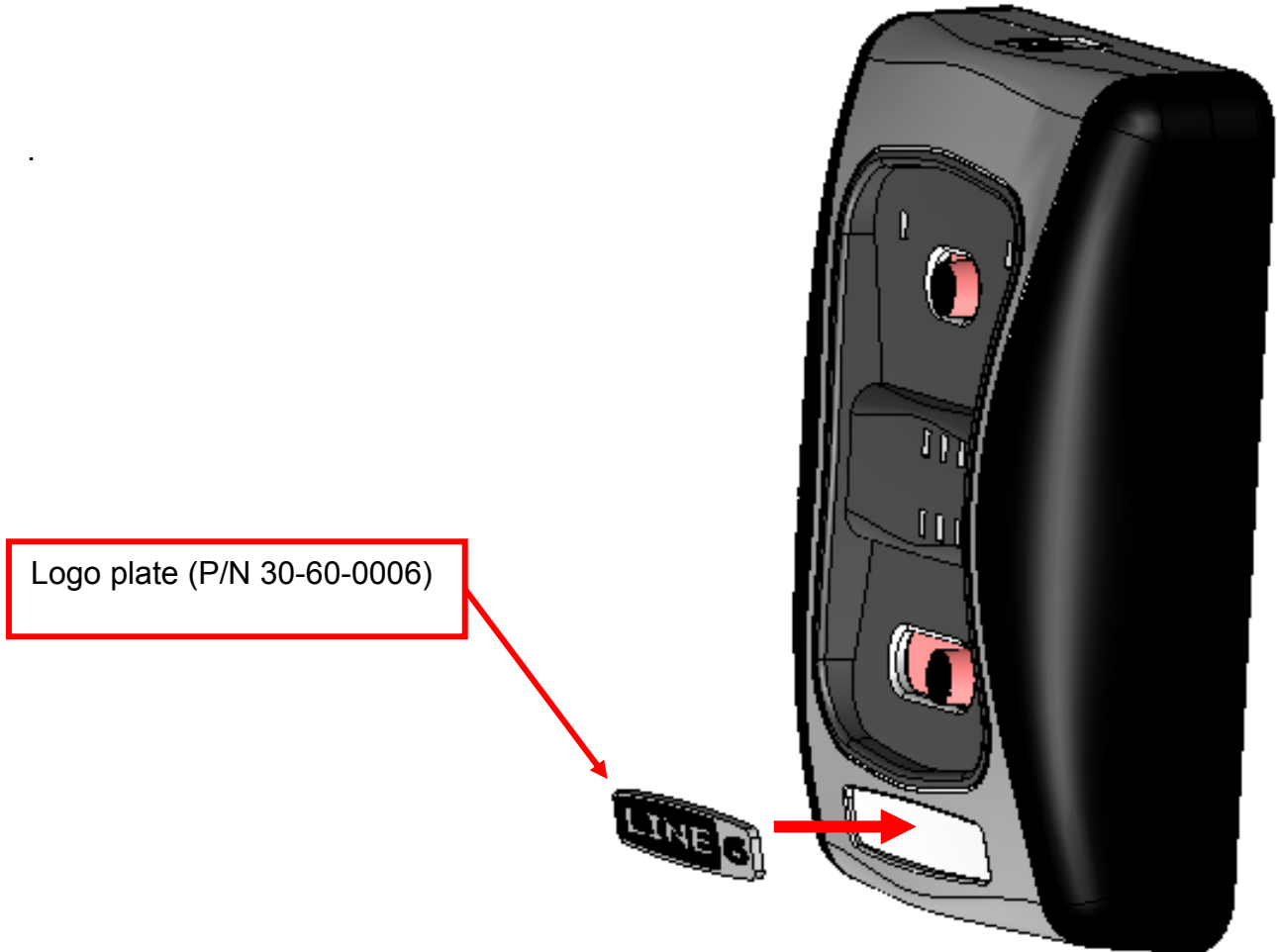
EXPLODED VIEW



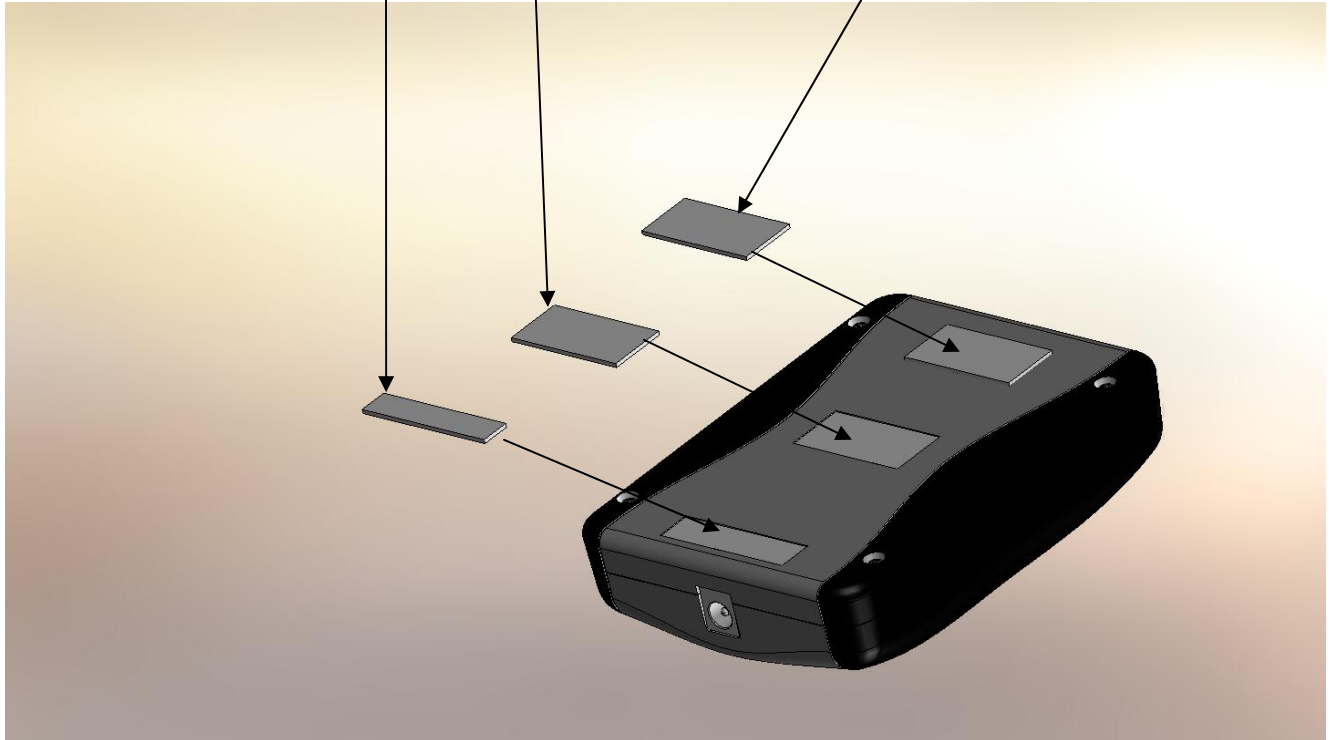


ASSEMBLED VIEW

Step 4: Install Logo Plate (P/N 30-60-0006) into top shell (P/N 30-27-0393).



Step 5: Attach FCC Label (PN 40-25-0090) and Serial number Label (PN 40-30-2004, use only one sticker) and WEEE Label (PN 40-25-0178) to the bottom housing.





Step 5: Completely Assembly.



Step 6: Final test.

L6D00223 – NIKOLA Tx L10 ASSEMBLY INSTRUCTIONS
59-00-1810 (TX L10)
Rev D



Special Notes

The instructions describe the electro-mechanical assembly of the NIKOLA TX L10 unit assembly (P/N 59-00-1810).

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- Torque value tolerance +/- 2.9 cm-kg. Do not over tighten any components.

For clarity, not all component details are shown. This is especially true with respect to cable assemblies. They are often omitted from views to provide a clearer picture of the material discussed. Do not be confused by the absence (or unexpected presence) of any component in the illustrations in this book.



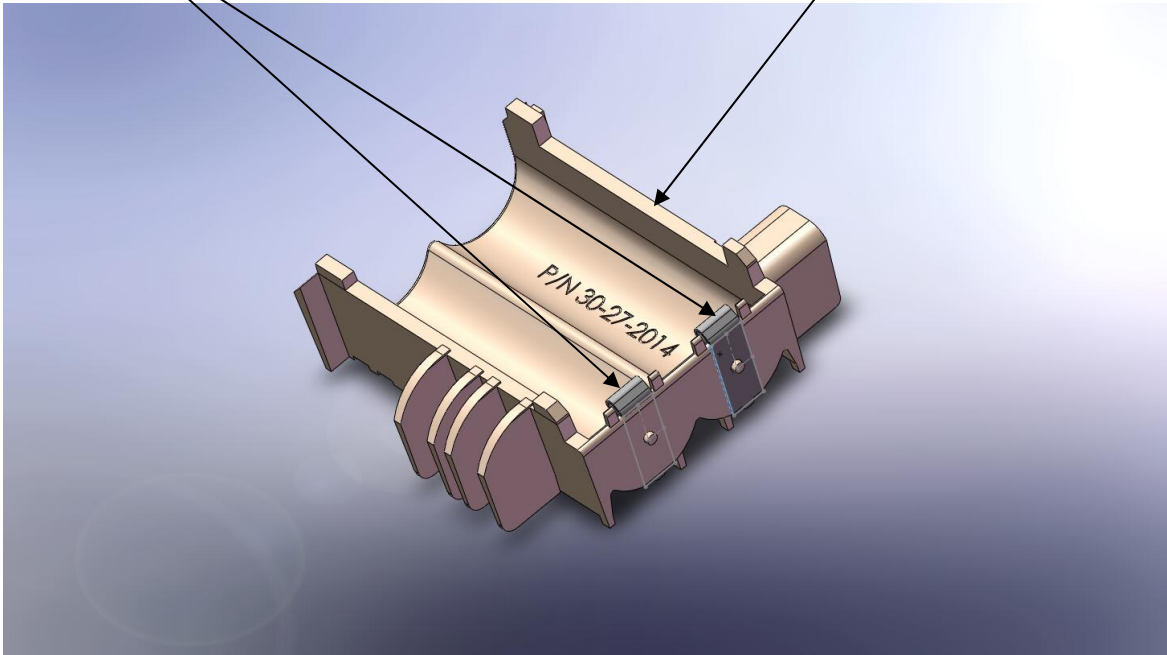
Revision Comment Sheet

Revision	Changes
A	SEE ECO 0904358 INITIAL RELEASE
B	SEE ECO 0906402
C	SEE ECO 0906805
D	SEE ECO 0909103 – STEP 19 - ADDED SERIAL NUMBER LABEL P/N

STEP 1: Snap Battery contact (PN-30-51-0409) on to battery box (PN30-27-2014)

2X Battery contact
(P/N 30-51-0409)

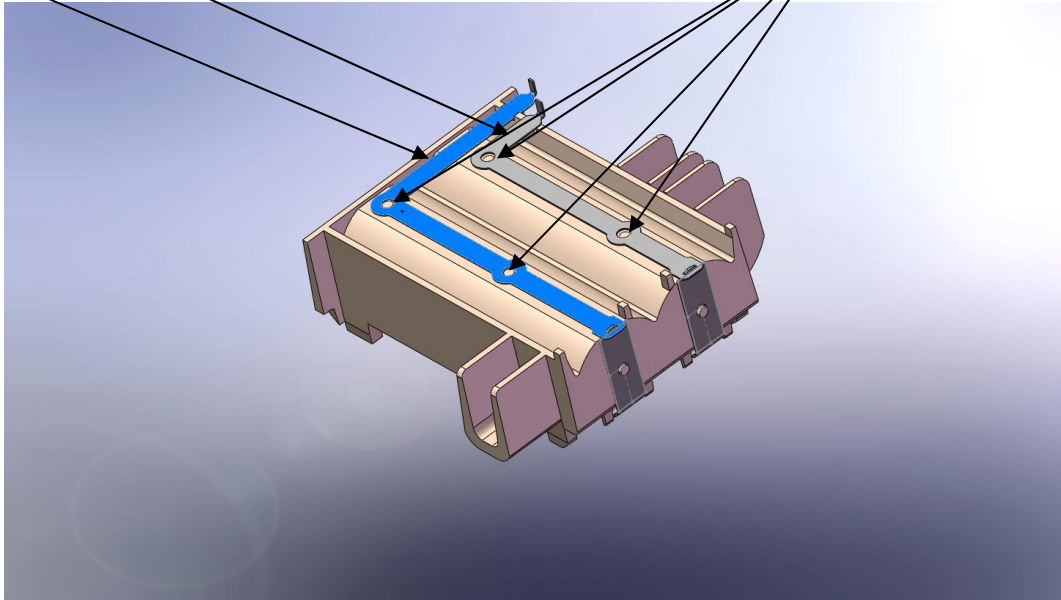
1X Battery Box
(P/N 30-27-2014)



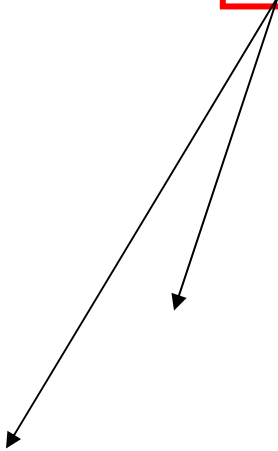
STEP 2: Install battery contact leads (PN 30-51-0411) and (PN30-51-0412). Place small amount of glue on alignment holes. Solder each battery conductor.

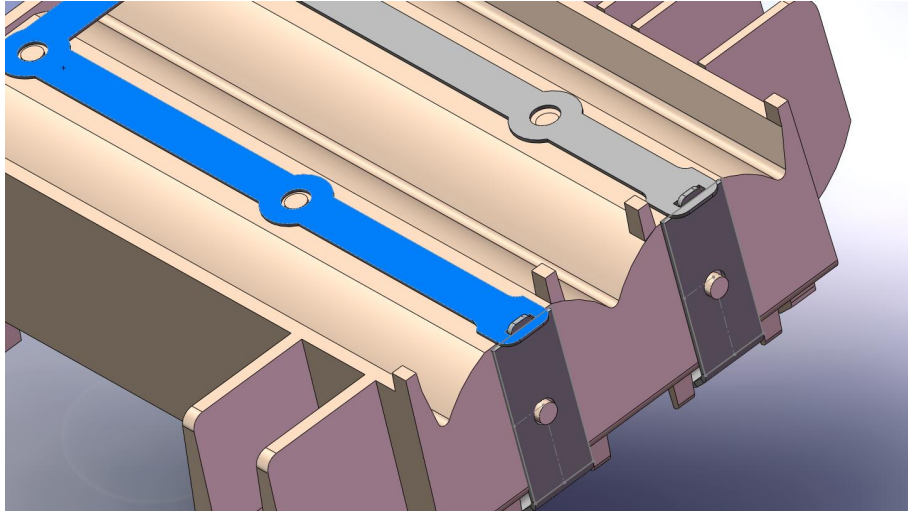
P/N 30-51-0411 and
30-51-0412.

Place small amount
glue (Cyanoacrylate)
in these locations.

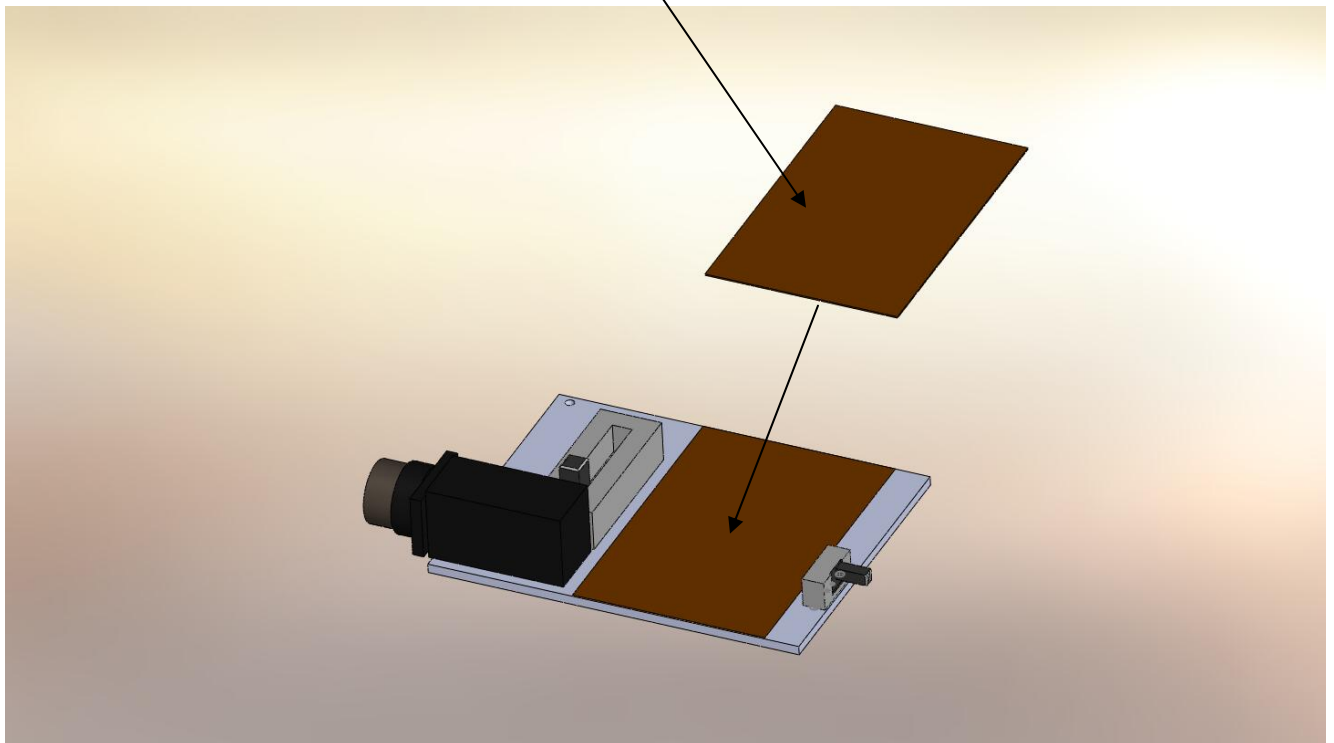


Solder in two locations

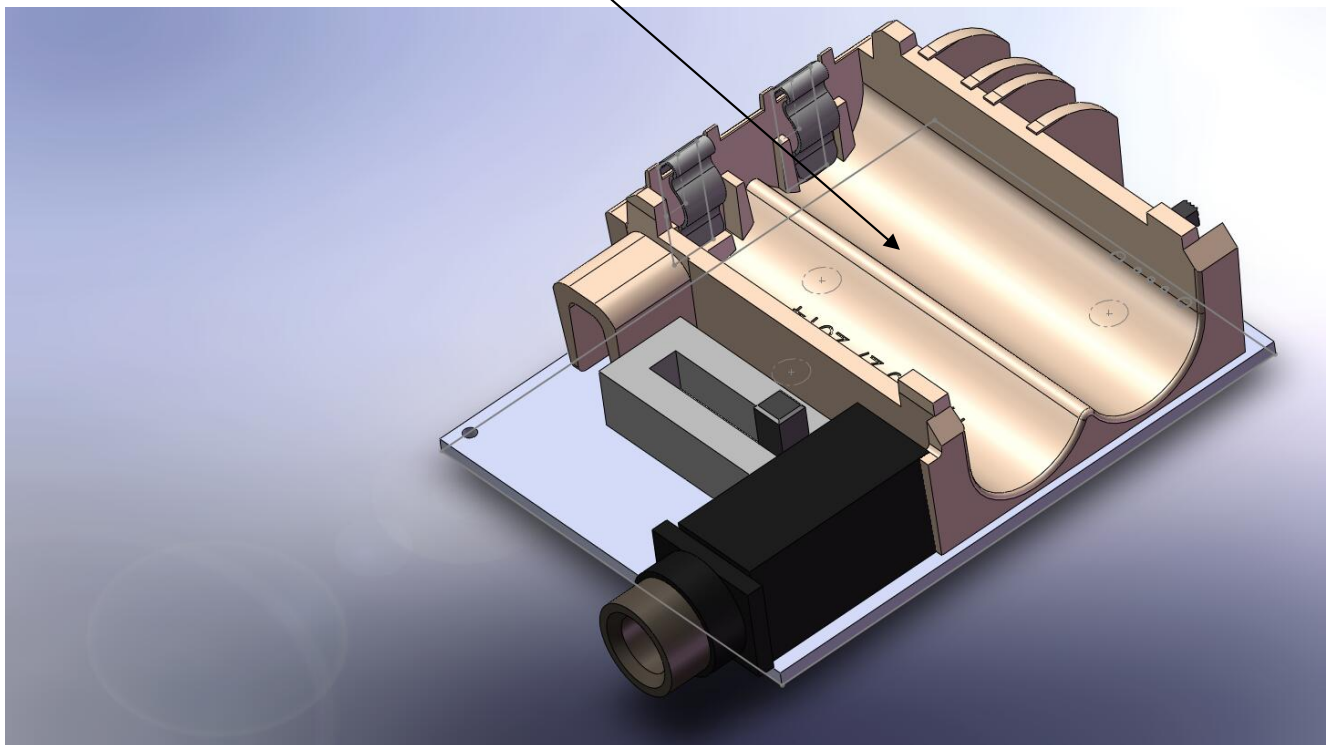


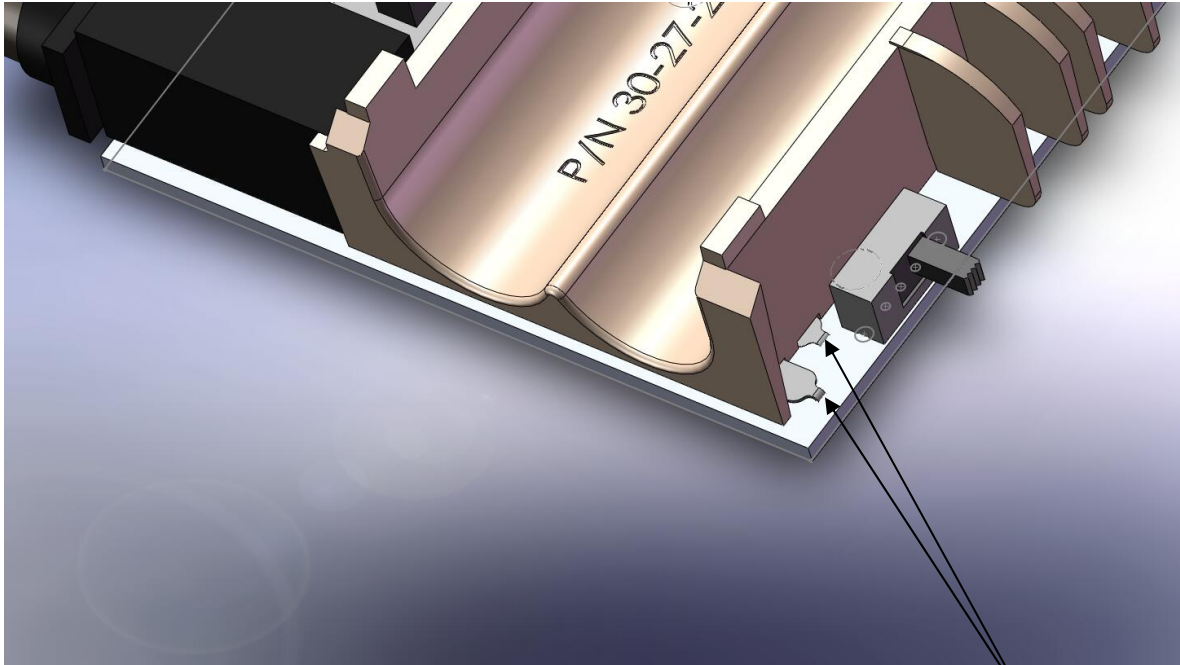


STEP 3: Place PCB insulator (30-65-0029) on PCBA (PN 50-02-5008).



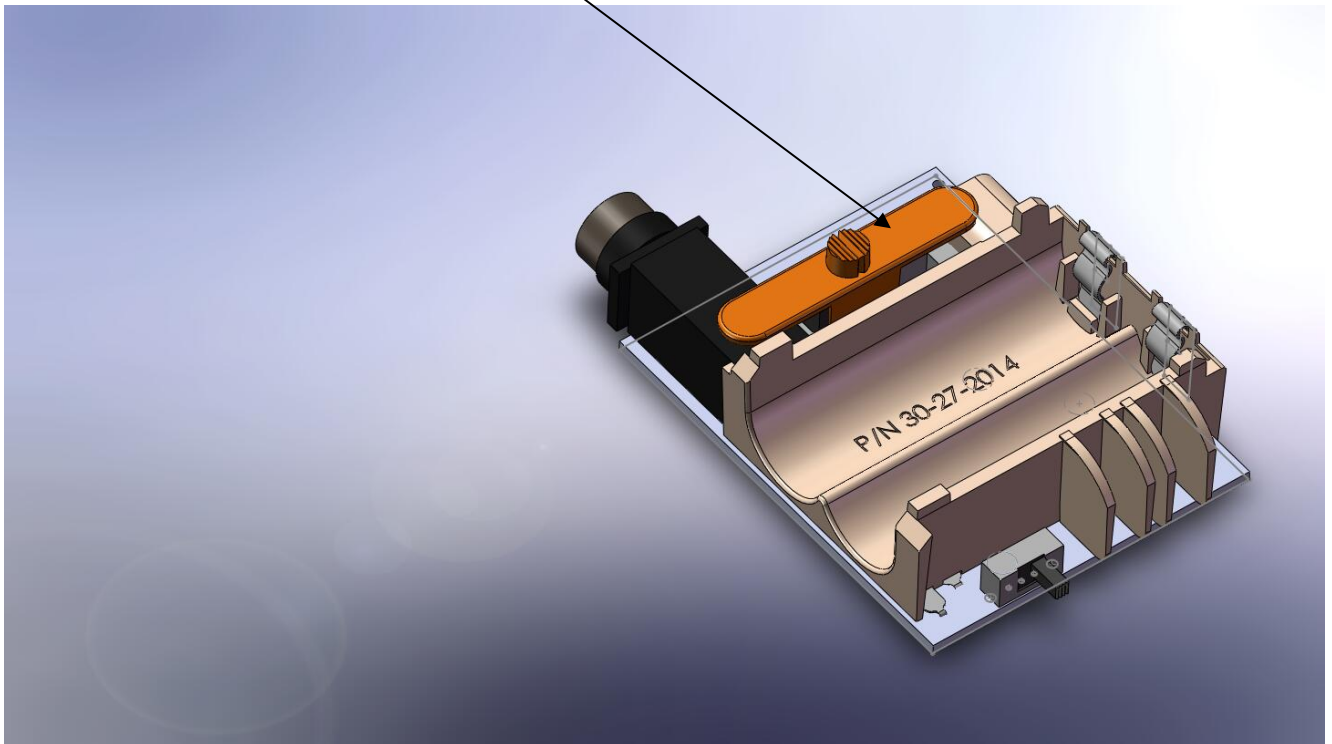
STEP 4: Assemble battery box assembly from Step 2 onto complete PCBA.



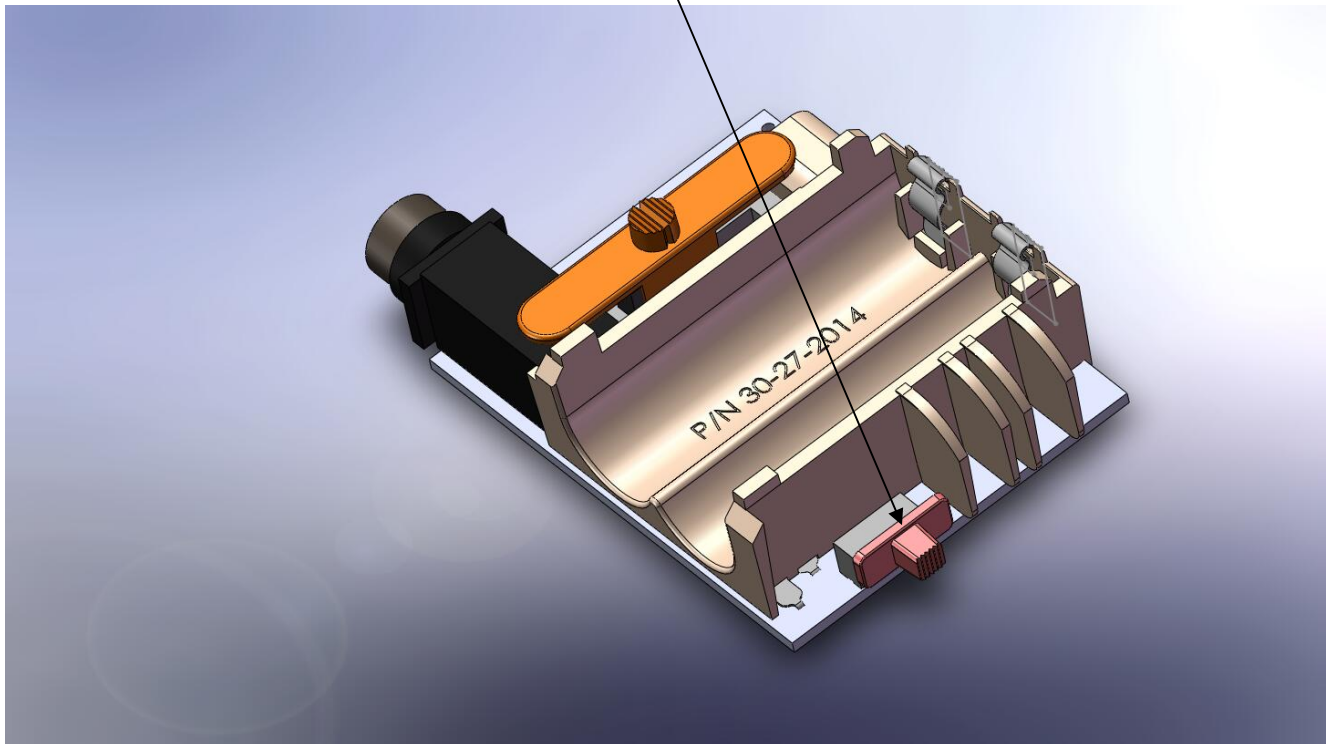


Solder in two locations on opposite side of PCBA

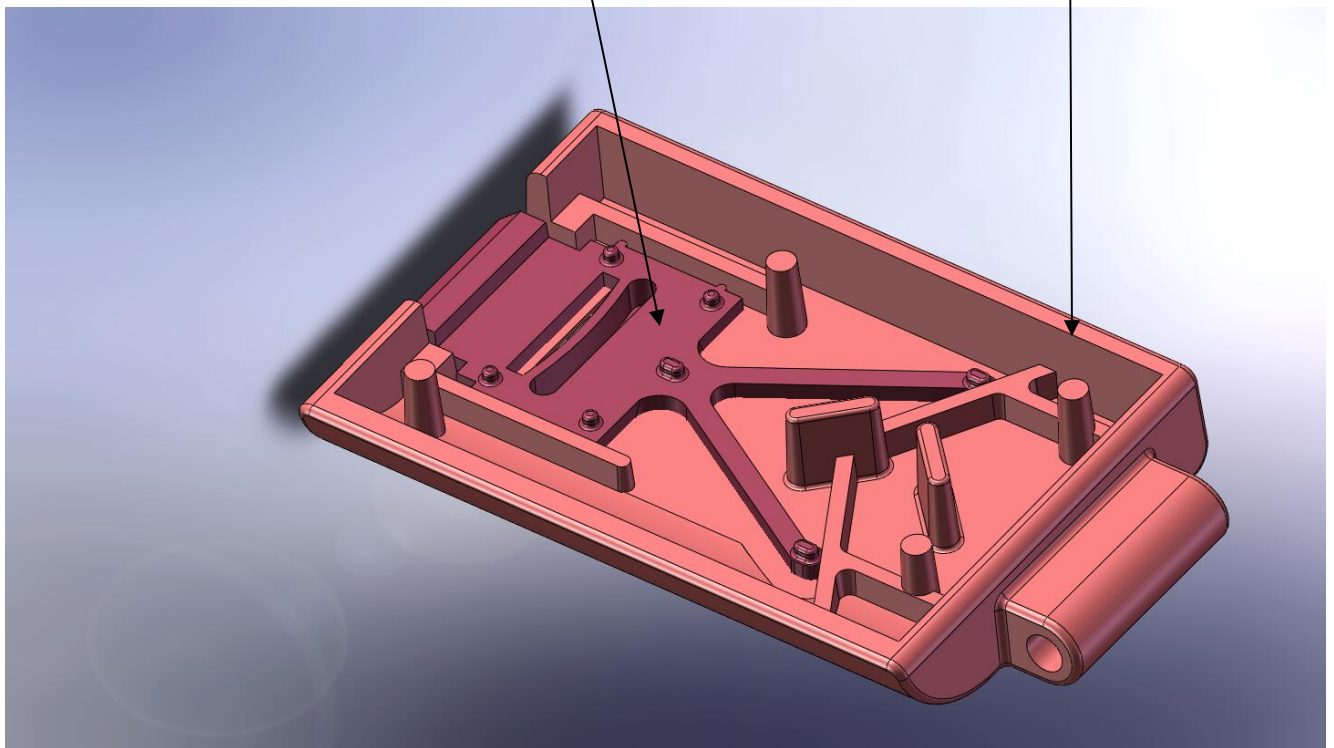
STEP 5: Place Channel Selector cover (PN 30-27-0392) onto Switch



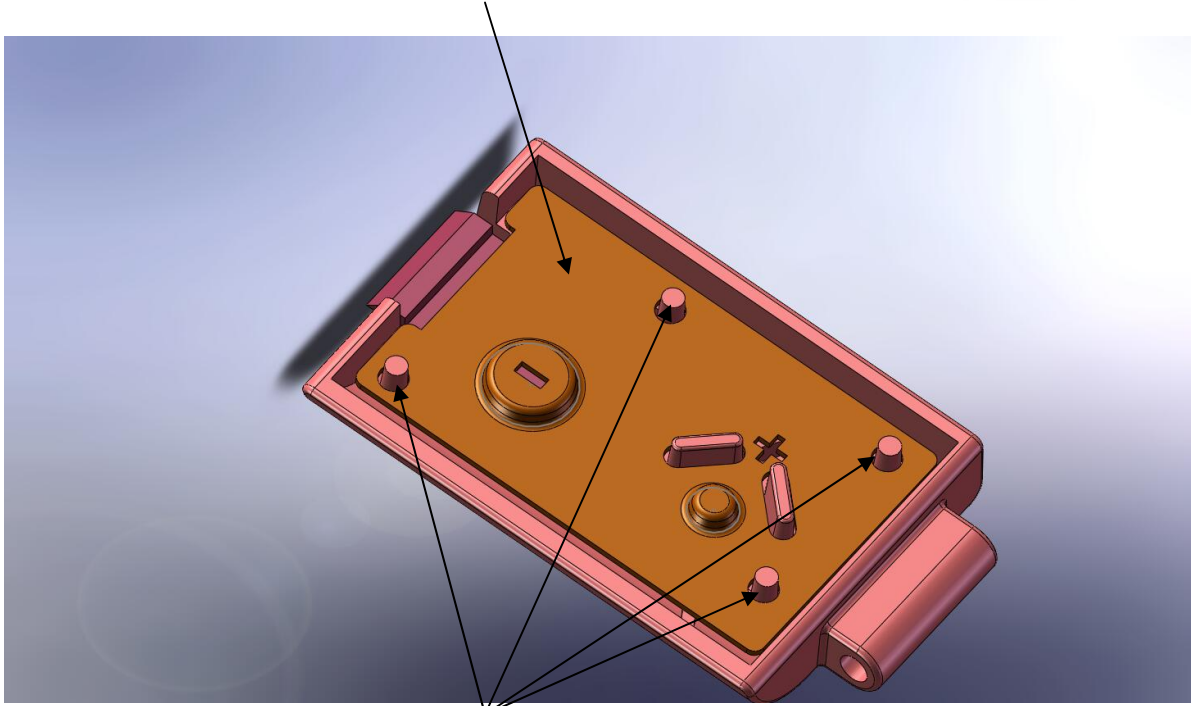
STEP 6: Place Power Switch cover (PN 30-27-0391) onto Switch



STEP 7: Place Battery Door Latch (PN 30-27-0067) into Battery Door (PN 30-27-2012).

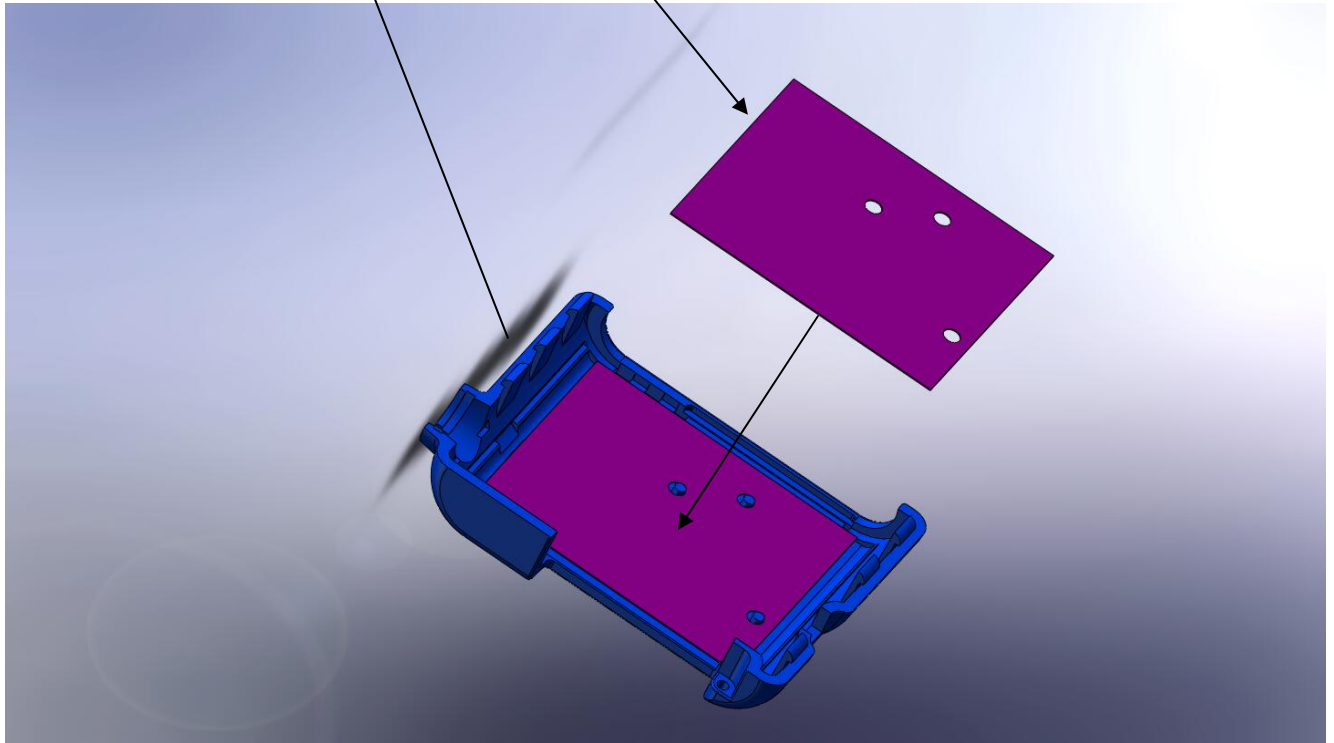


STEP 8: Place Battery Contact (PN 30-51-0408) into Battery Door (PN 30-27-2012)



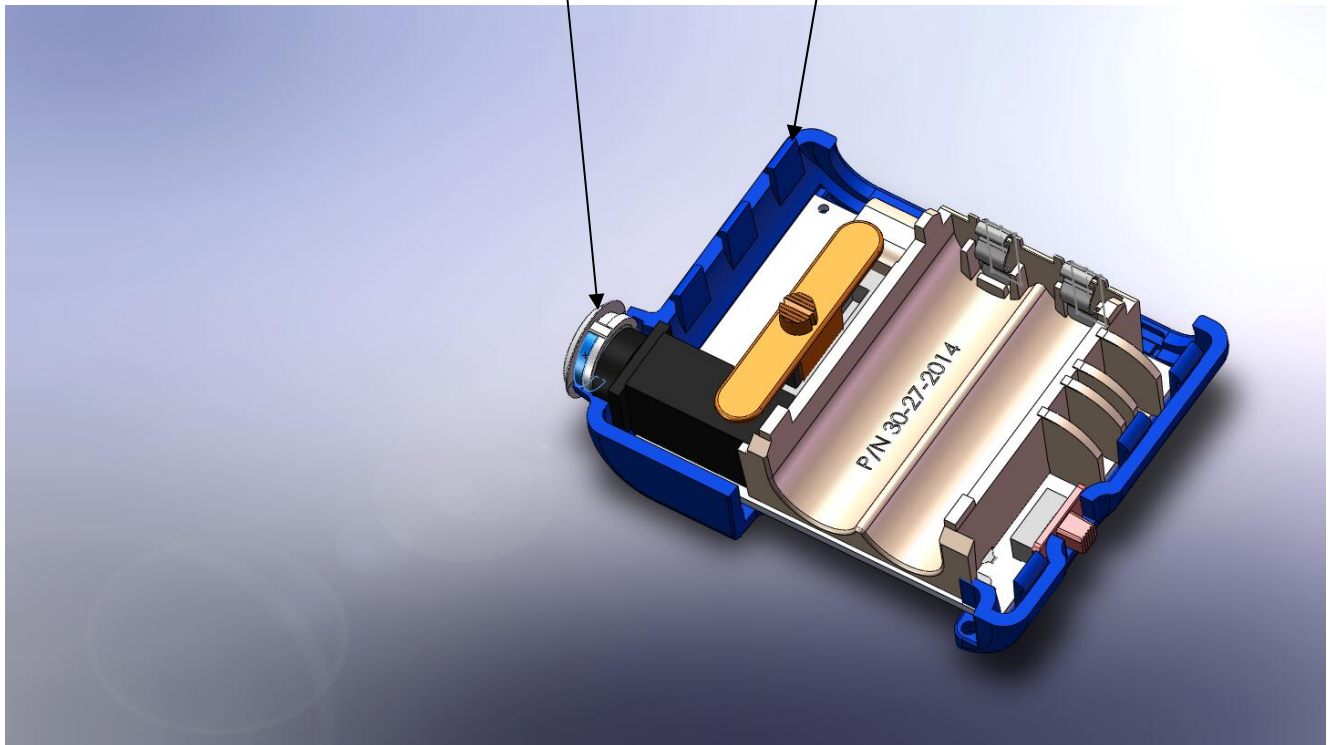
Heat Stake in 4 locations

Step 9: Place Tape Insulator (PN 30-65-0028) on bottom housing (PN 30-27-0388).

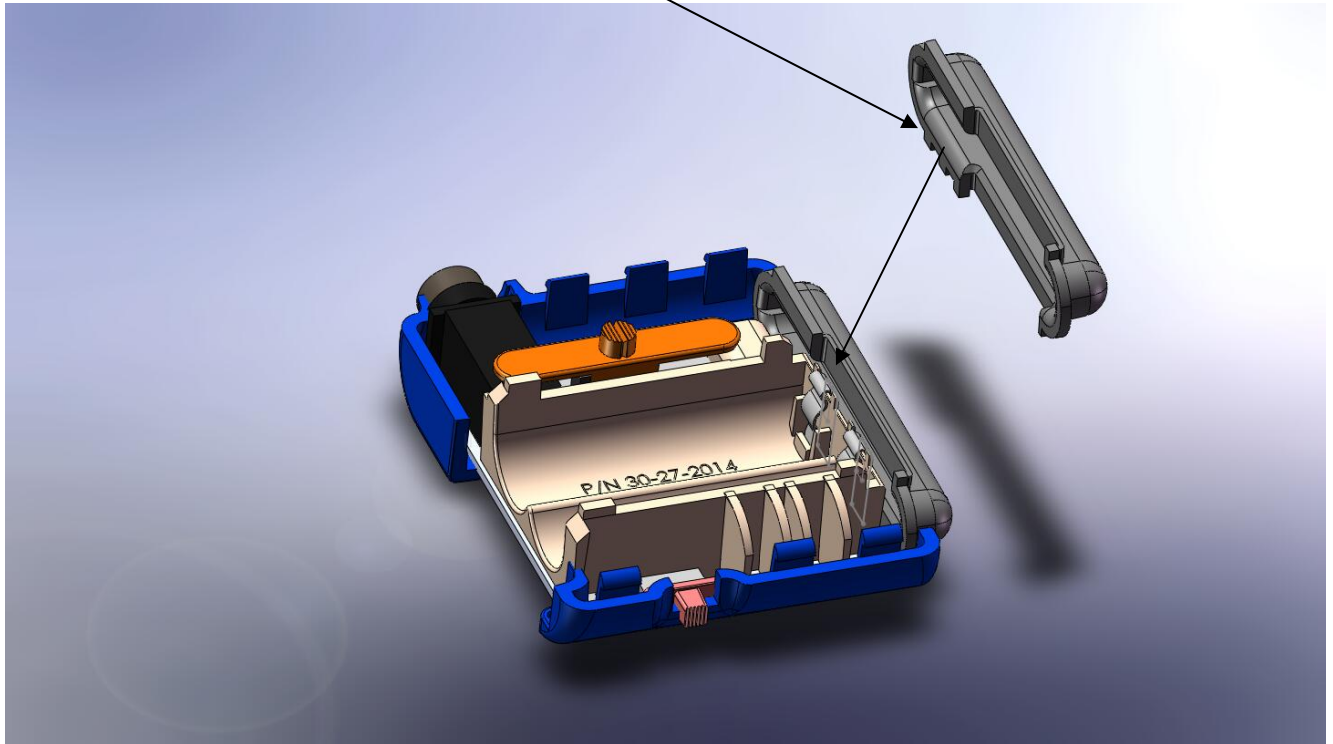


Step 10: Place Jack finishing ring (PN 30-27-0311) onto ¼ inch jack

Install Assembly from Step 6 into Bottom Housing (PN 30-27-0388).

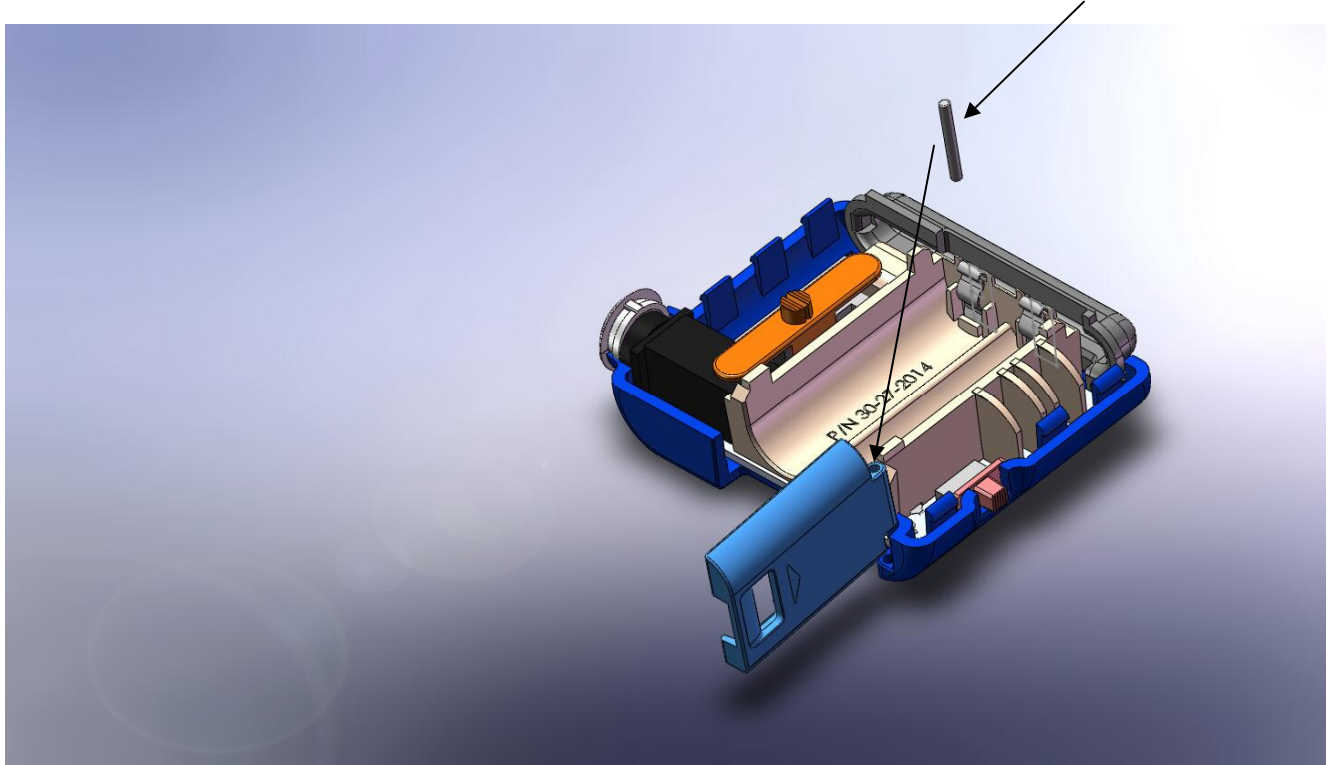


Step 11: Install Antenna cover (PN 30-27-0389) into Bottom Housing

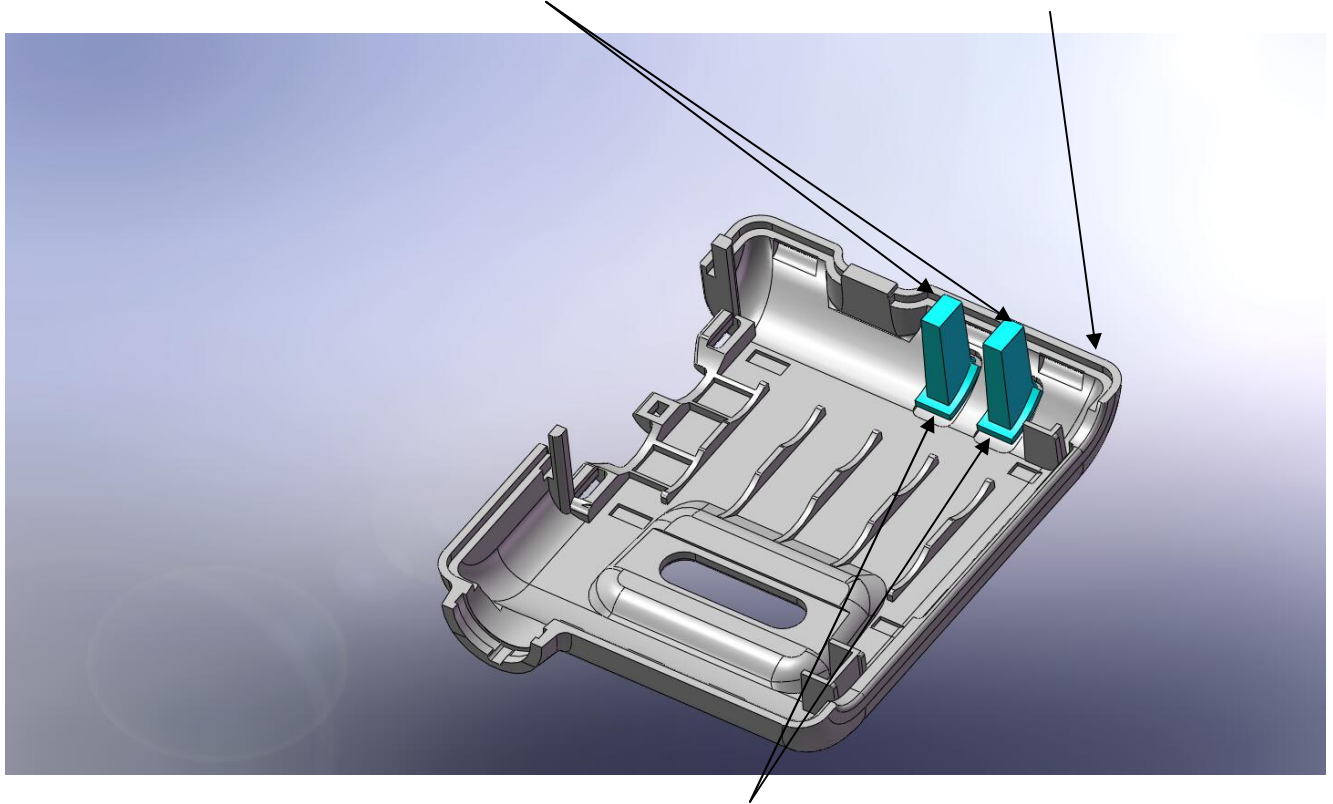


CAUTION : ANTENNA SHAPE IS CRITICAL. DO NOT BEND ANTENNA WIRE

Step 12: Install Battery Door Assembly into Bottom Housing using pin (PN 30-51-0429).

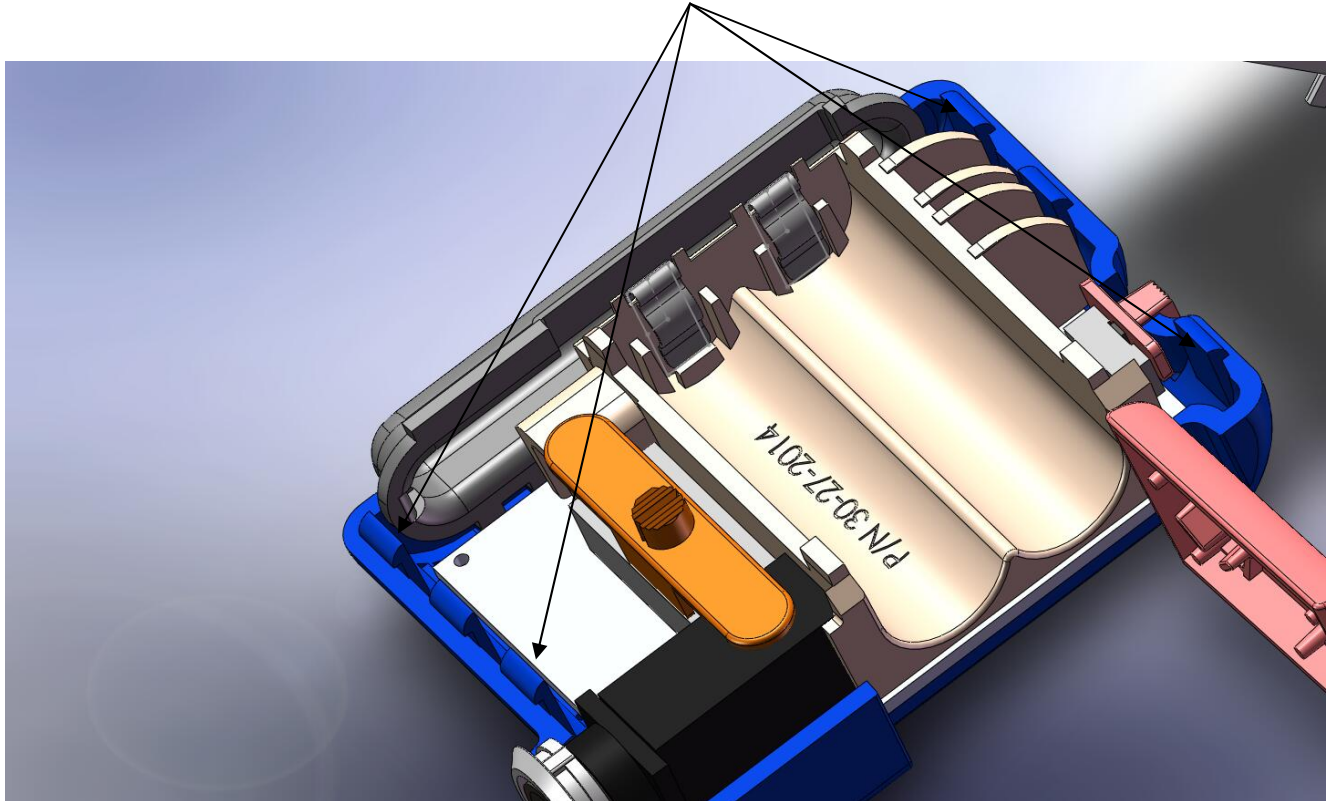


Step 13: Install 2 x Light Pipe (PN 30-27-0390) into top housing (PN 30-27-0387)

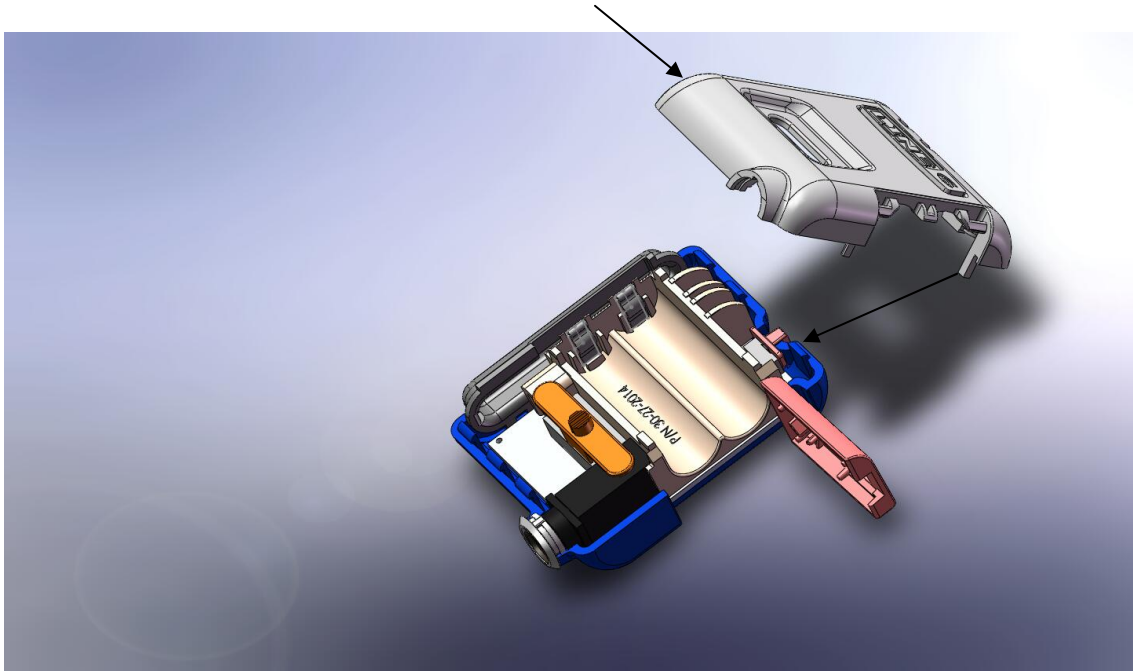


Place a small amount of Glue in the location shown (Cyanoacrylate).

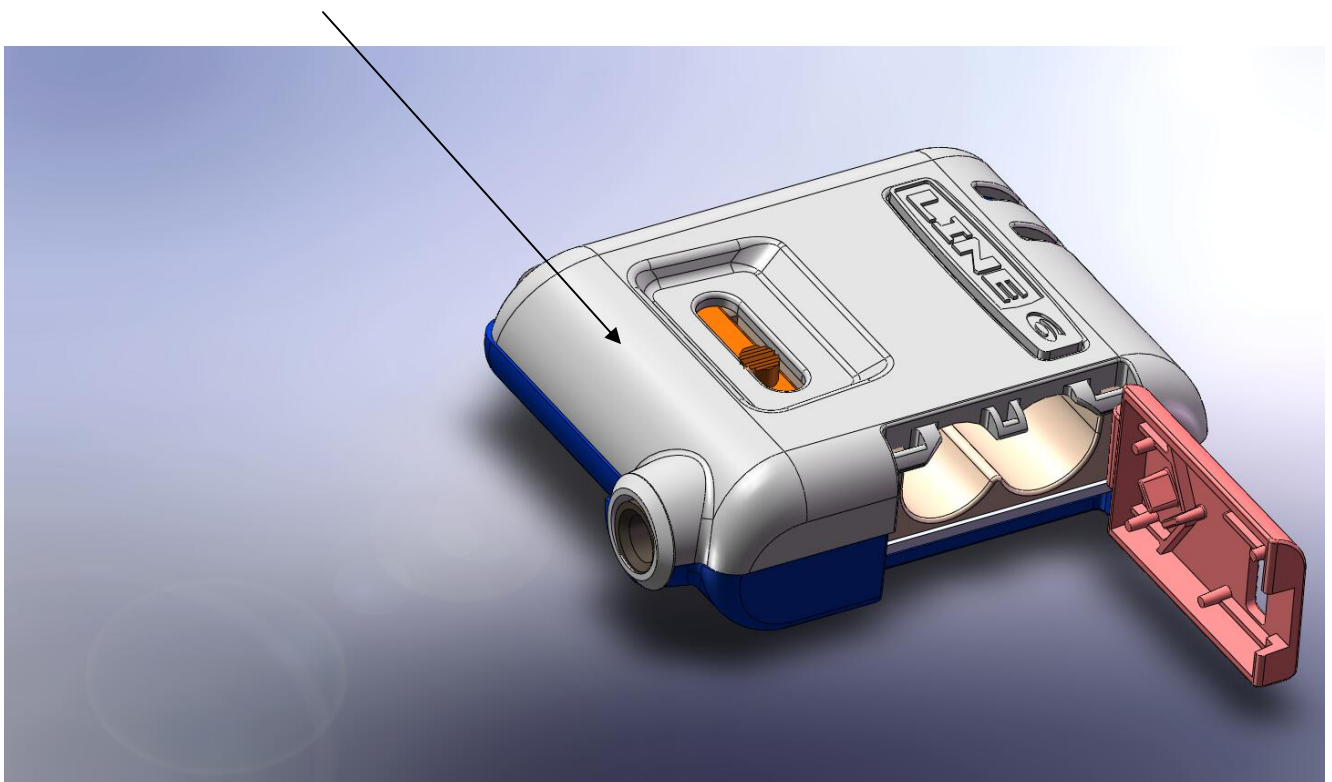
Step 14: Place a small amount of glue (Water based glue, slow cure about 2-5 minutes) on the inside of the snaps.



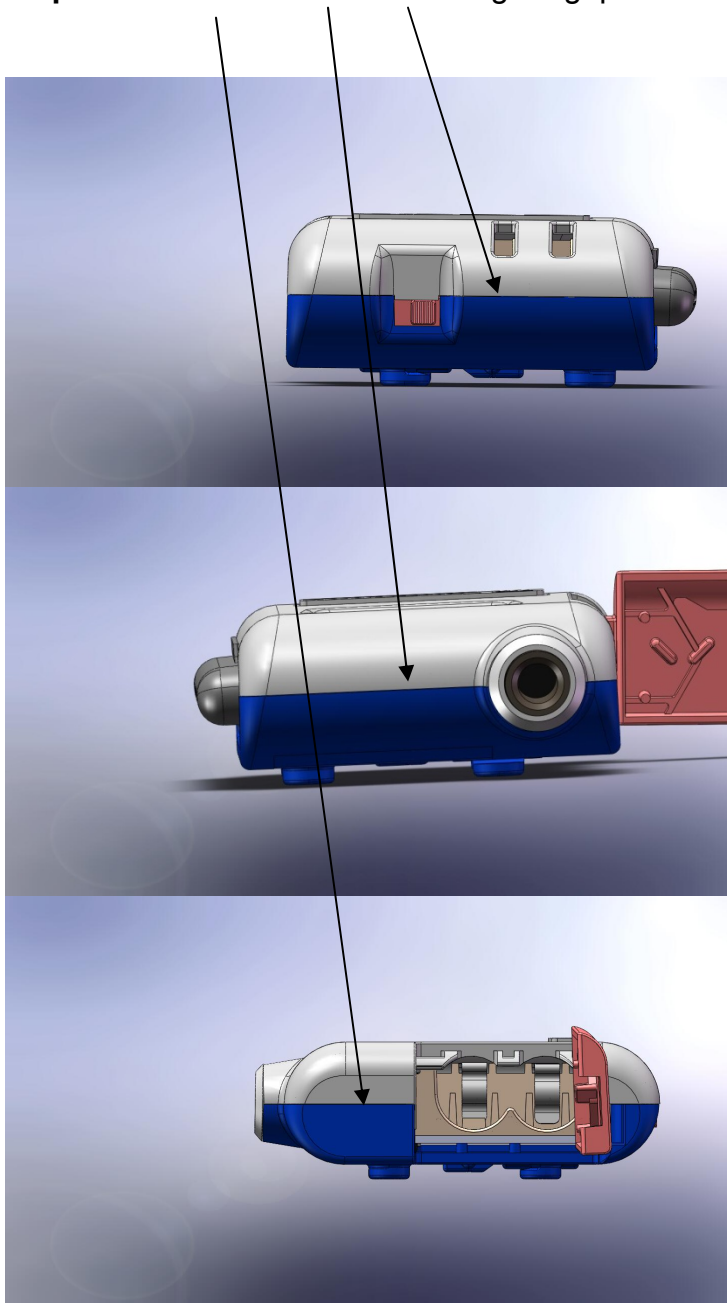
Step 15: Place back of top housing (PN 30-27-0387) on lower assembly snaps



Step 16: Rotate front of top housing (PN 30-27-0387) on lower assembly snaps in front.

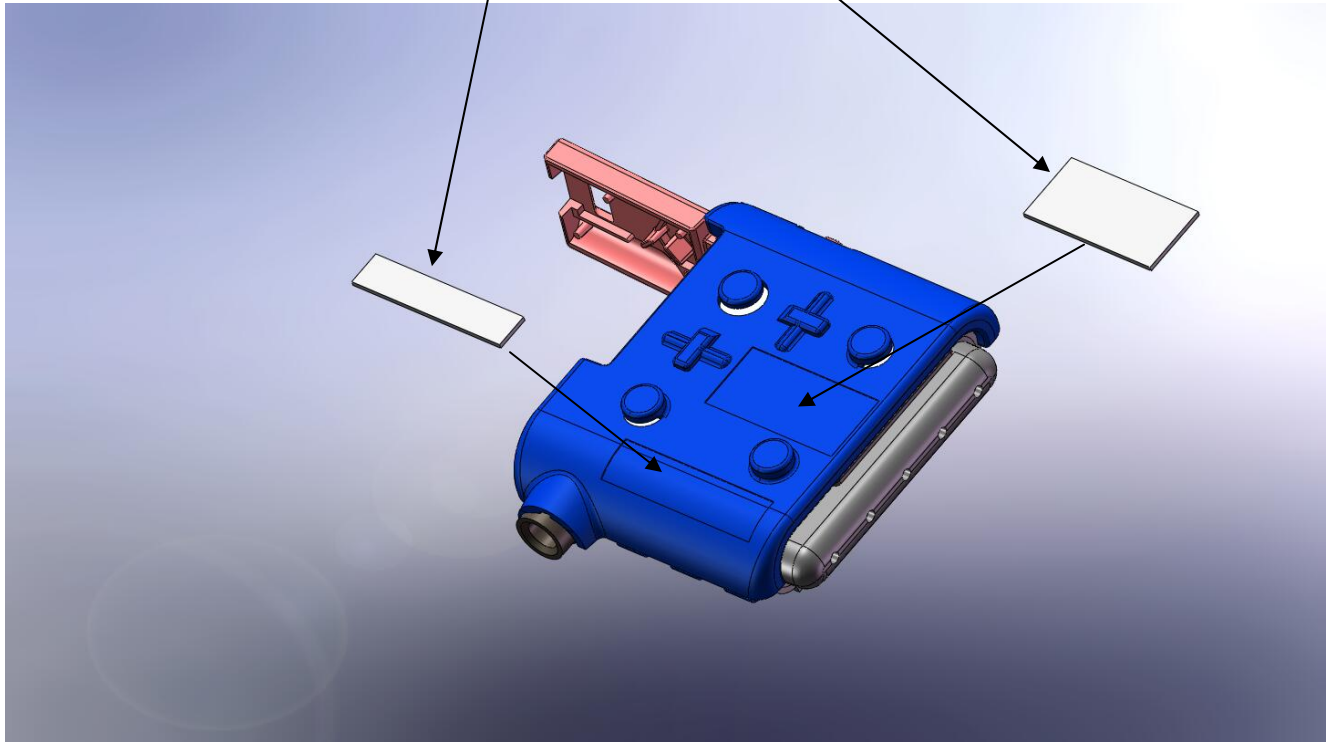


Step 17: Check around the housing for gaps.

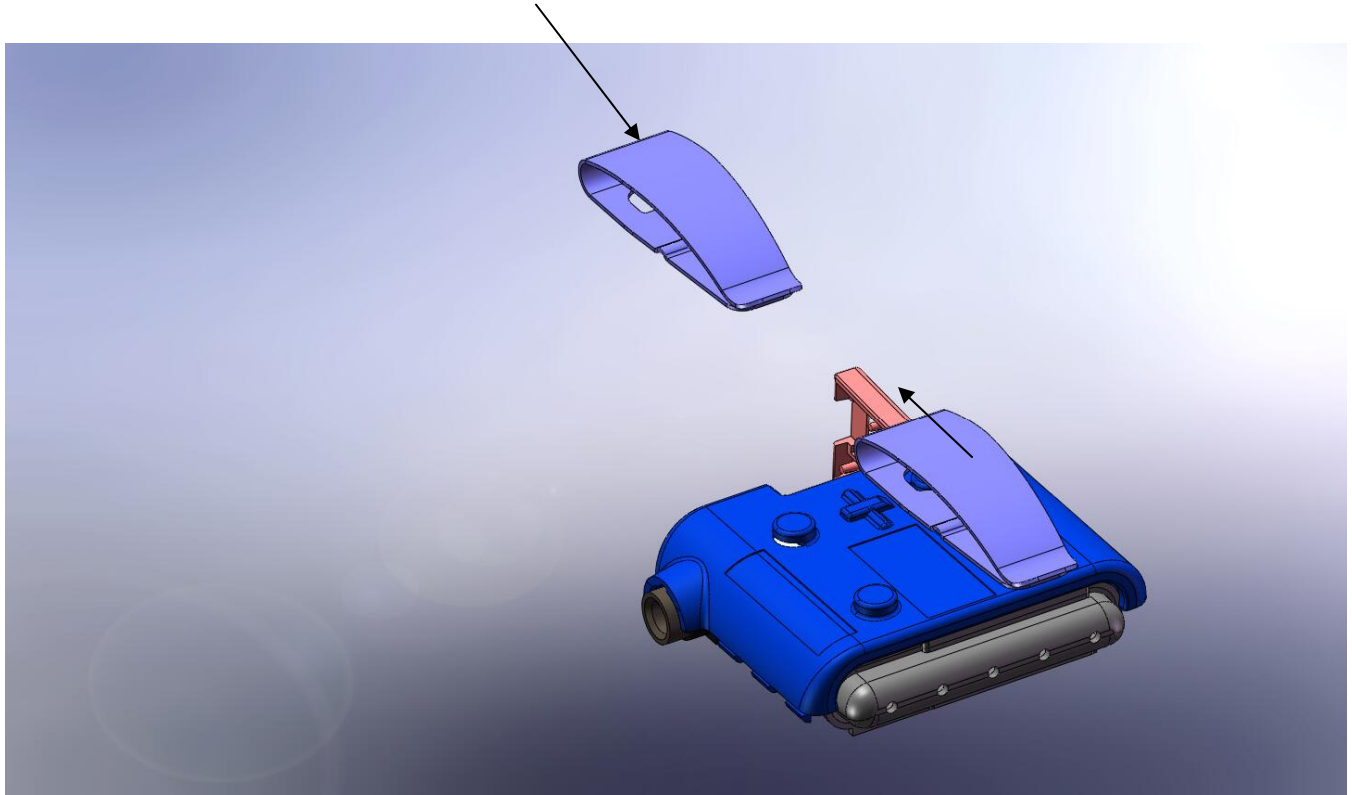


Step 18: Close the battery door and operate the latch.

Step 19: Place the FCC Label (PN 40-25-0090) on the back housing.
Place the Serial # Label (PN 40-25-2004, use only one label)



Step 20: Place the Belt Clip (PN 30-51-0403) onto the back housing. Place belt clip over mounting pegs (as shown) and pull toward the battery door to lock into place.



Step 21: Proceed to final unit test.