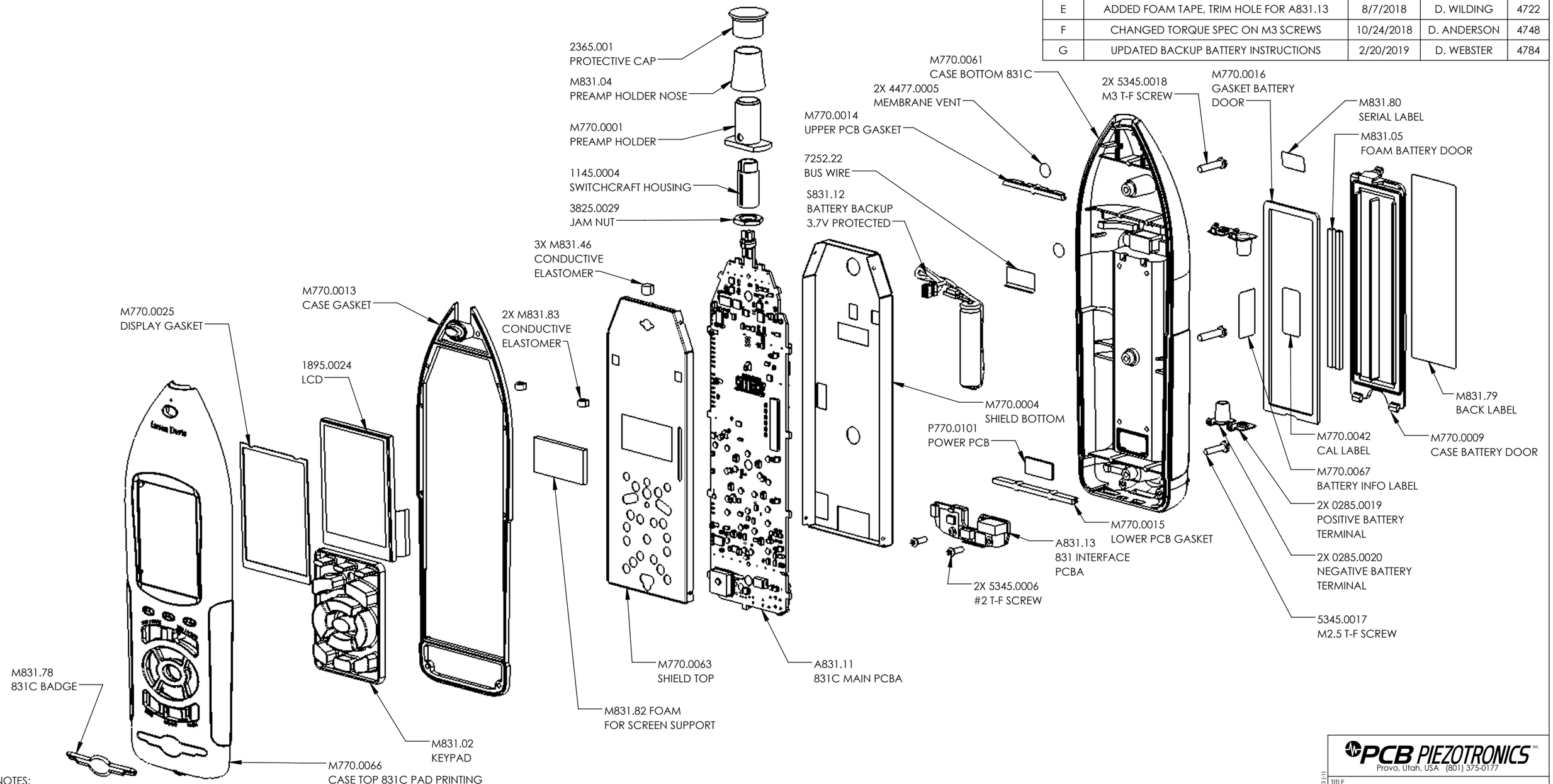
REV.	DESCRIPTION	DATE	BY	ECO
A	INITIAL RELEASE OF SEPARATED DESIGN	2/20/2017	D. ANDERSON	4524
B	ADDITION OF M770.0067 LABEL	4/17/2017	D. ANDERSON	4550
C	CHANGE OF THE M770.0063 SHIELD	8/2/2017	D.ANDERSON	4608
D	ADDED M831.82 AND M831.83	3/16/2018	D. WILDING	4687
E	ADDED FOAM TAPE, TRIM HOLE FOR A831.13	8/7/2018	D. WILDING	4722
F	CHANGED TORQUE SPEC ON M3 SCREWS	10/24/2018	D. ANDERSON	4748
G	UPDATED BACKUP BATTERY INSTRUCTIONS	2/20/2019	D. WEBSTER	4784



NOTES:

1. SEE BOM AS PROVIDED BY PCB ENGINEERING.
2. ALL EQUIVALENCIES MUST BE APPROVED BY PCB ENGINEERING.
3. ALL COMPONENTS AND PROCESSES MUST BE ROHS COMPIANT.

AUTHOR: D. ANDERSON

DATE: 3/31/2016

PCB PIEZOTRONICS INC.
Provo, Utah, USA (801) 375-0177

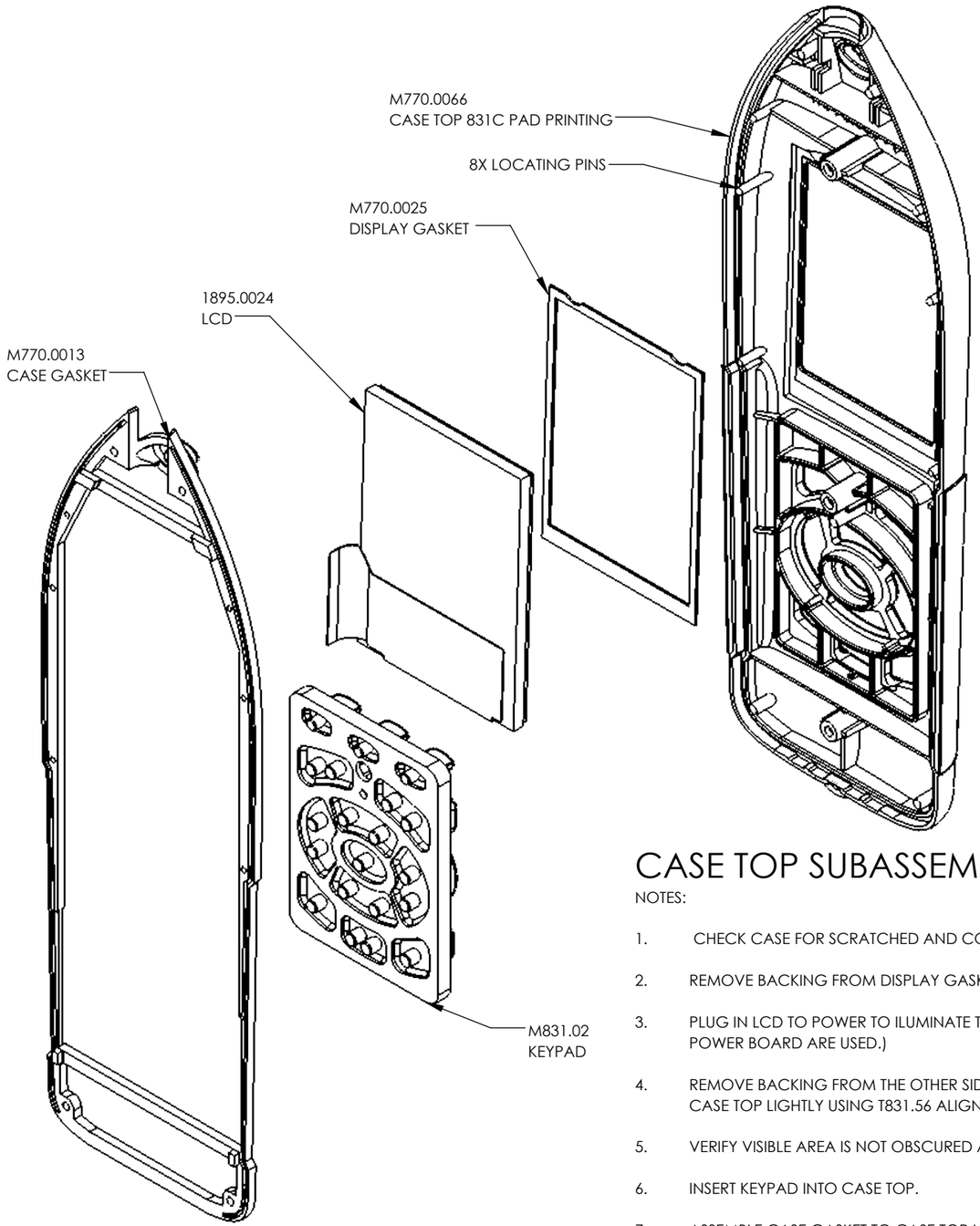
TEMPLATE: D2140.0023 (-1)

TITLE: ASSEMBLY 831C FINISHED UNIT

SIZE: B | NUMBER: S831C.XX | REV: G

SCALE 1:2 | SHEET 1 OF 6

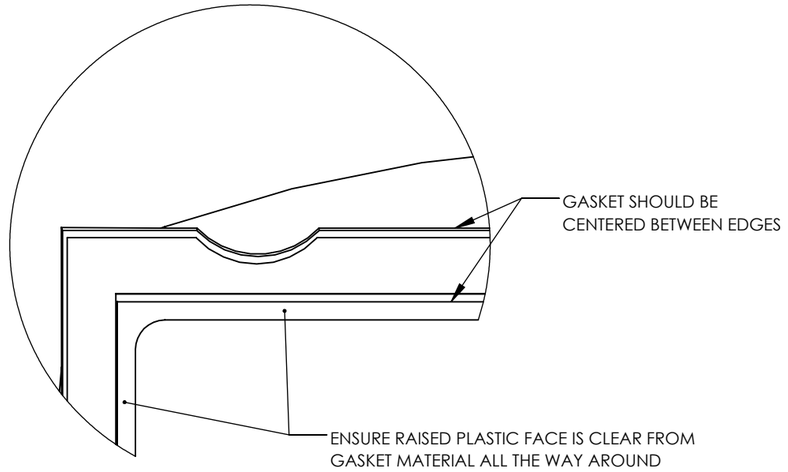
STEPS AS PART OF THE S831C.02



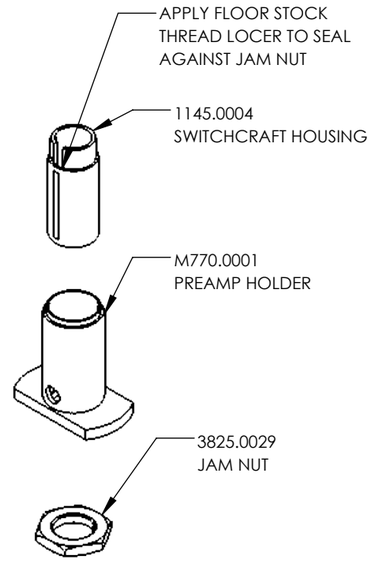
GASKET ALIGNMENT

NOTES:

1. ENSURE GASKET IS CENTERED IN TOP GROOVE.
2. ENSURE GASKET IS NOT PLACED ON RAISED EDGE IN ANY LOCATION.



DETAIL H
SCALE 4 : 1



PREAMP SUBASSEMBLY

NOTES:

1. INSERT SWITCHCRAFT HOUSING IN THE PREAMP HOLDER.
2. APPLY PURPLE LOCTITE 222 OR EQUIVALENT THREAD LOCKER, AND TIGHTEN JAM NUT.
3. BE SURE BLACK BUTTON ON SWITHCRAFT HOUSING IS CENTERED IN HOLE OF PREAMP HOLDER.

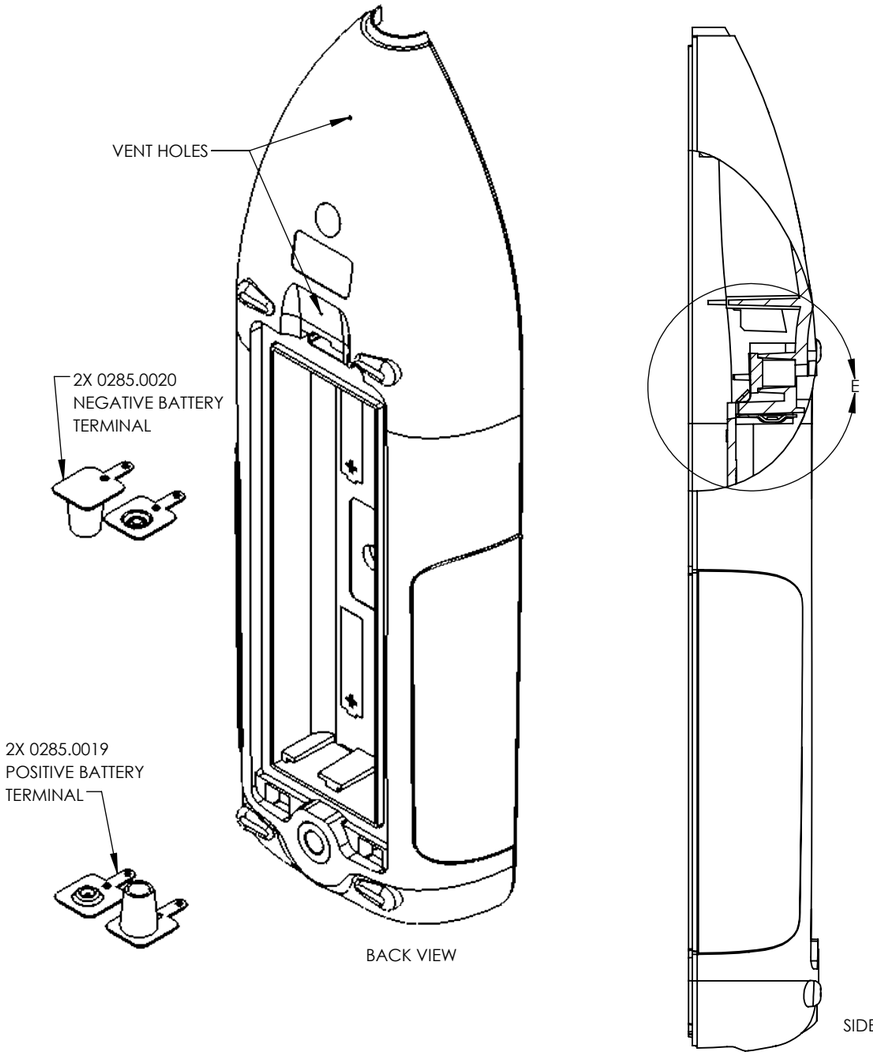
CASE TOP SUBASSEMBLY

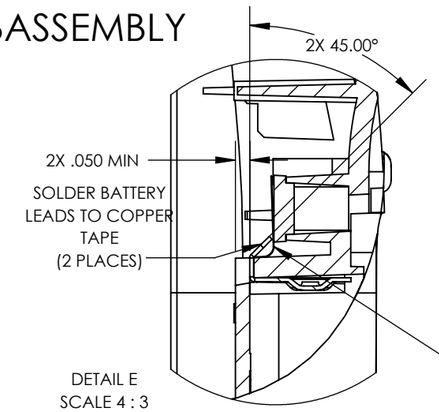
NOTES:

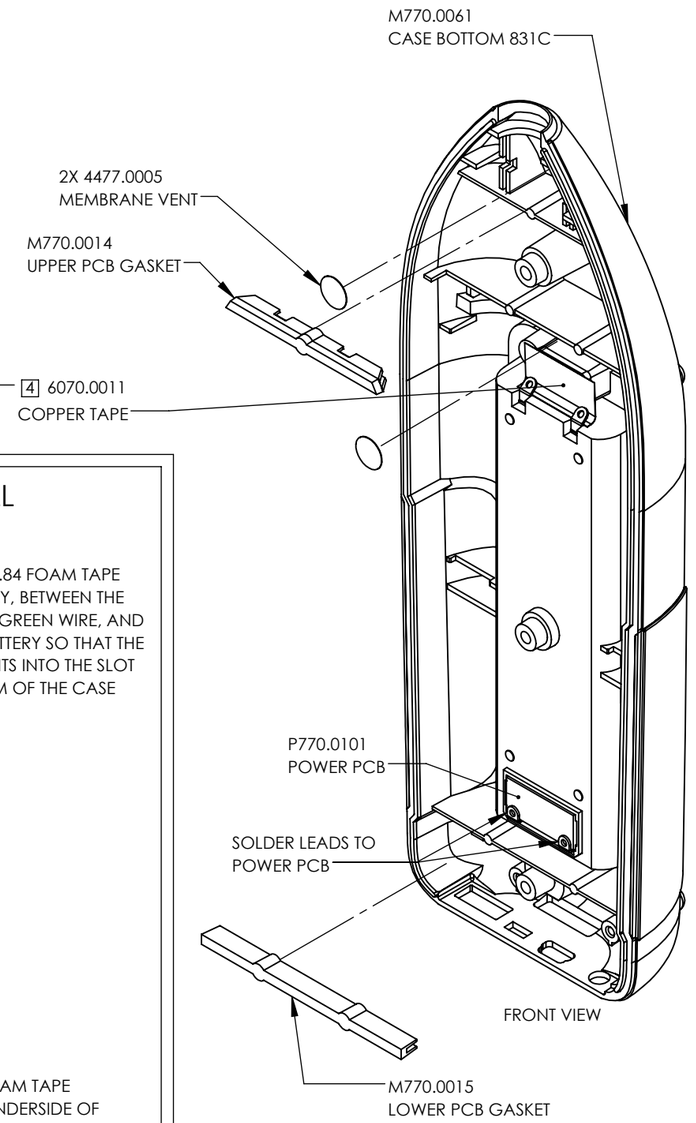
1. CHECK CASE FOR SCRATCHED AND CORRECT PRINTING.
2. REMOVE BACKING FROM DISPLAY GASKET AND ALIGN INTO CASE TOP, SEE DETAIL H.
3. PLUG IN LCD TO POWER TO ILUMINATE THE BACKLIGHT. (POWER SUPPLY AND LCD POWER BOARD ARE USED.)
4. REMOVE BACKING FROM THE OTHER SIDE OF THE DISPLAY GASKET AND ALIGN LCD TO CASE TOP LIGHTLY USING T831.56 ALIGNMENT TOOL.
5. VERIFY VISIBLE AREA IS NOT OBSCURED AND PRESS DOWN TO THE GASKET.
6. INSERT KEYPAD INTO CASE TOP.
7. ASSEMBLE CASE GASKET TO CASE TOP USING THE LOCATION PINS.

STEPS AS PART OF THE S831C.02

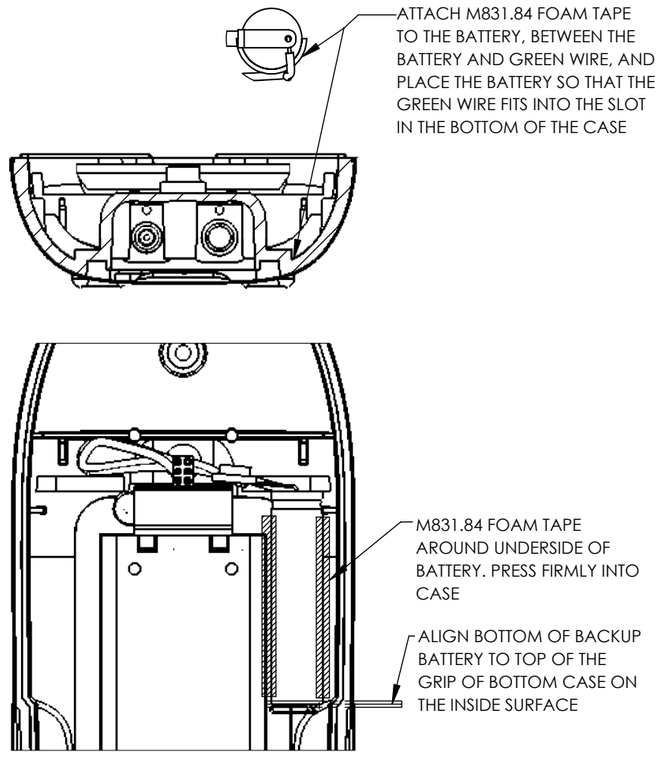
CASE BOTTOM SUBASSEMBLY







831C BACKUP BATTERY INSTALL



Notes:

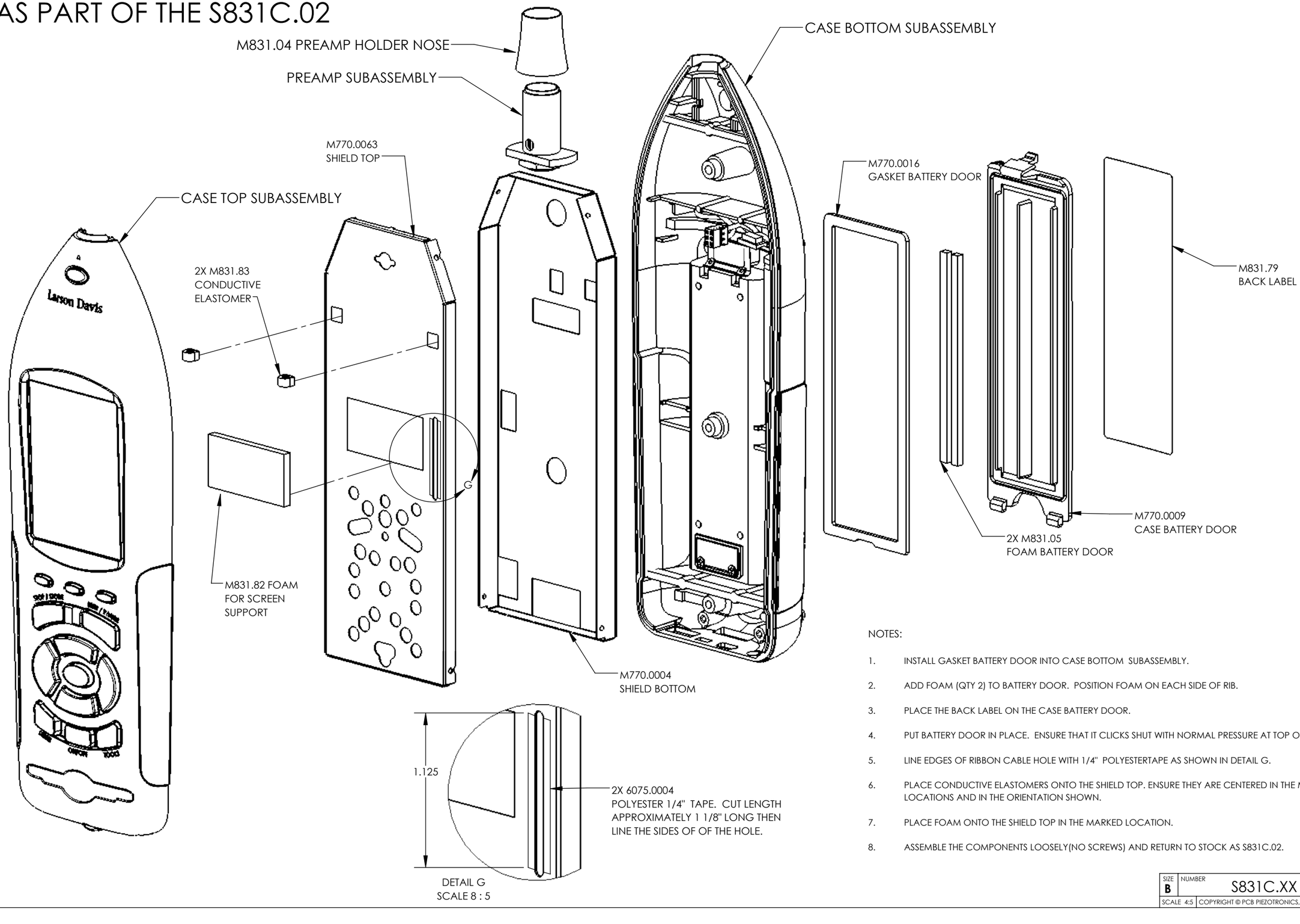
1. INSERT BATTERY TERMINAL FULLY INTO SLOTS IN CASE BOTTOM. A TIGHT FIT IS TO BE EXPECTED; USE TOOL TO INSERT FULLY IF NEEDED.
2. ASSEMBLE THE BACKUP BATTERY INTO THE CASE AS SEEN IN "831C BACKUP BATTERY INSTALL".
3. PLACE POWER PCB INTO RECESS IN CASE BOTTOM, BEND TABS OF THE LOWER TERMINALS TIGHTLY OVER & ONTO THE POWER PCB, AND SOLDER.

[4] USE 6070.0011 COPPER TAPE AND SOLDER ACROSS THE TWO BATTERY TERMINALS.

5. PLACE THE TWO GASKETS ONTO THE RIBS IN THE CASE BOTTOM AS SHOWN.
6. PLACE THE TWO MEMBRANE VENTS OVER HOLES IN BOTTOM CASE.

SIZE	NUMBER	REV.
B	S831C.XX	G
SCALE 4:5	COPYRIGHT © PCB PIEZOTRONICS, INC.	SHEET 3 OF 6

STEPS AS PART OF THE S831C.02

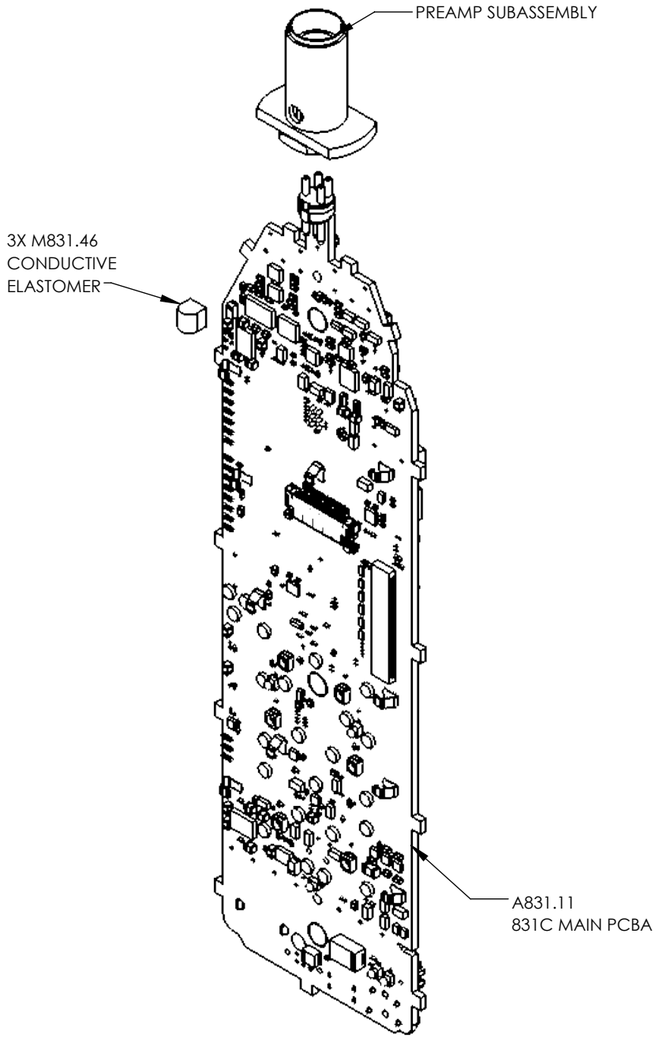


NOTES:

1. INSTALL GASKET BATTERY DOOR INTO CASE BOTTOM SUBASSEMBLY.
2. ADD FOAM (QTY 2) TO BATTERY DOOR. POSITION FOAM ON EACH SIDE OF RIB.
3. PLACE THE BACK LABEL ON THE CASE BATTERY DOOR.
4. PUT BATTERY DOOR IN PLACE. ENSURE THAT IT CLICKS SHUT WITH NORMAL PRESSURE AT TOP OF DOOR.
5. LINE EDGES OF RIBBON CABLE HOLE WITH 1/4" POLYESTERTAPE AS SHOWN IN DETAIL G.
6. PLACE CONDUCTIVE ELASTOMERS ONTO THE SHIELD TOP. ENSURE THEY ARE CENTERED IN THE MARKED LOCATIONS AND IN THE ORIENTATION SHOWN.
7. PLACE FOAM ONTO THE SHIELD TOP IN THE MARKED LOCATION.
8. ASSEMBLE THE COMPONENTS LOOSELY(NO SCREWS) AND RETURN TO STOCK AS S831C.02.

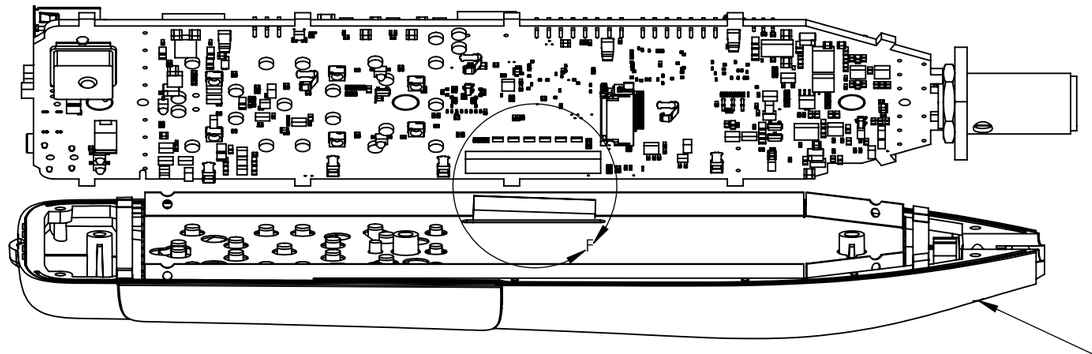
SIZE	NUMBER	REV.
B	S831C.XX	G

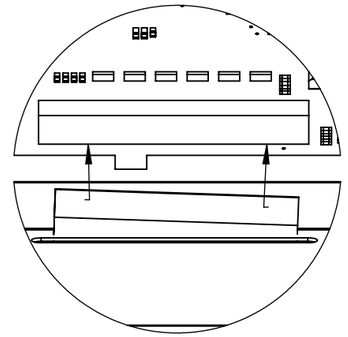
MAIN PCBA SUBASSEMBLY



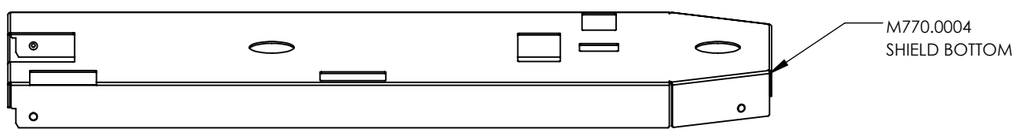
Notes:

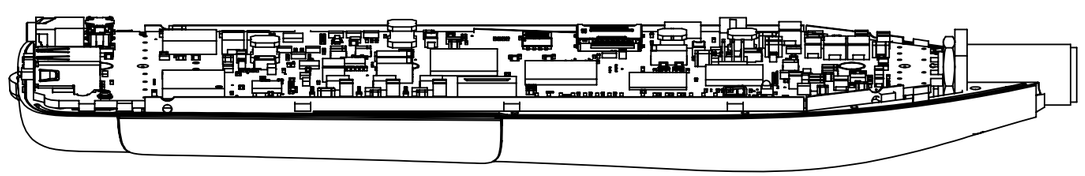
1. REMOVE ADHESIVE BACKING AND APPLY CONDUCTIVE ELASTOMER TO CENTER OF GROUND PAD. WHEN ASSEMBLING, ENSURE CONDUCTIVE ELASTOMER DOES NOT SHORT TO ANY COMPONENTS.
2. PLACE SHIELD TOP INTO CASE TOP SUBASSEMBLY AND INSERT THE LCD CABLE THROUGH THE THE SLOT.
3. INSERT CABLE INTO THE PCB SOCKET AND ENSURE IT SEATS COMPLETLY. USE A THIN METAL RULER (OR SIMILAR ITEM) TO ENGAGE THE SOCKET LATCH SEE IN DETAIL F.
4. ASSEMBLE THE SHIELD TOP, PCB ASSEMBLY, AND BOTTOM SHIELD AND LOCK THE SHIELD TOP TO THE SHIELD BOTTOM WITH ALL 4 LOCK POSITIONS.





DETAIL F
SCALE 8 : 5





SIZE	NUMBER	REV.
B	S831C.XX	G
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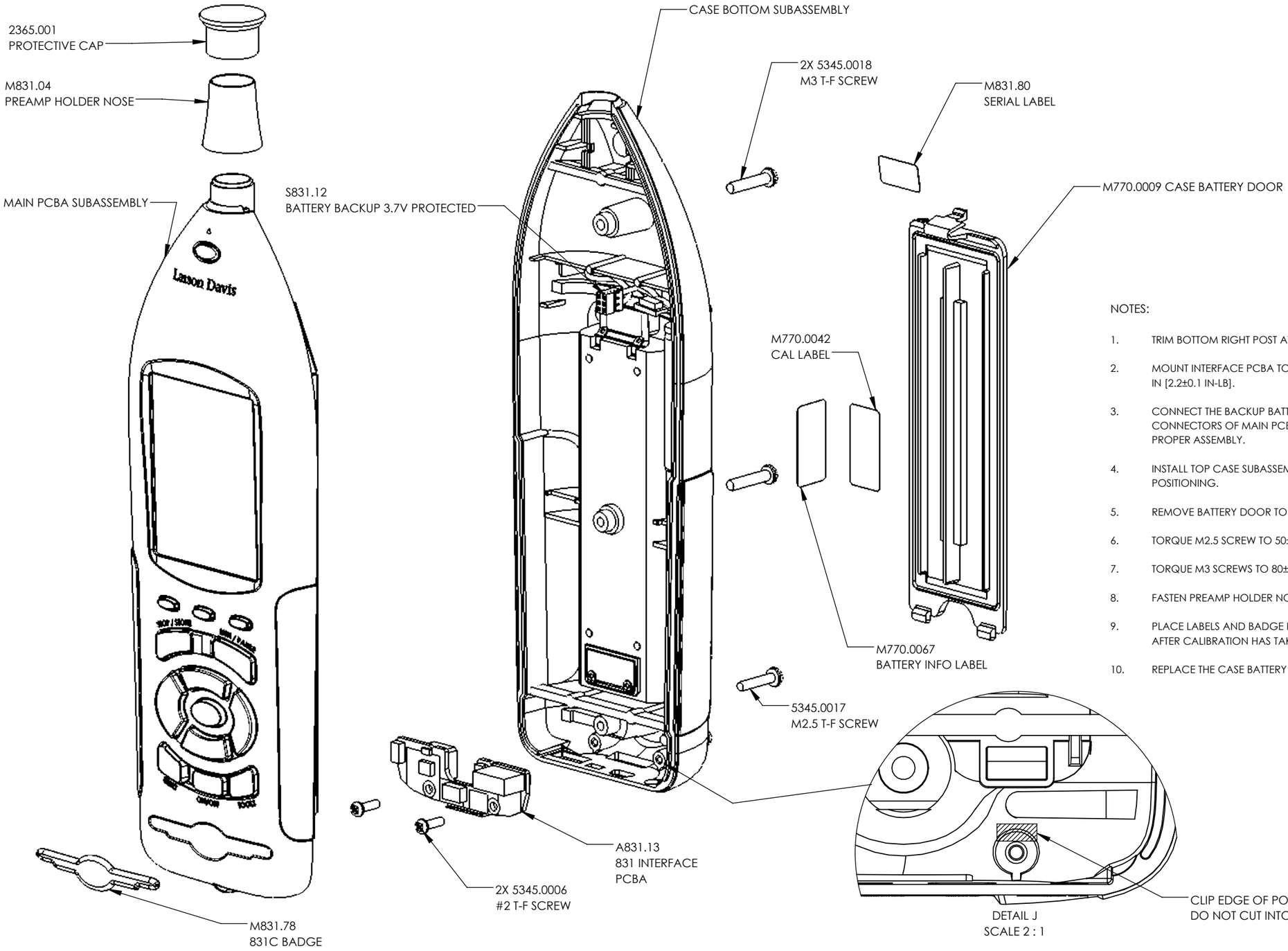
STEPS AS PART OF THE S831C.01



NOTES:

1. TRIM BOTTOM RIGHT POST AT 45 DEGREES AS SHOWN IN DETAIL J.
2. MOUNT INTERFACE PCBA TO BOTTOM CASE WITH #2 SCREWS, TORQUE #2 SCREWS TO 35±2 OZ-IN [2.2±0.1 IN-LB].
3. CONNECT THE BACKUP BATTERY TO THE PCB. INSTALL BOTTOM CASE - BEGIN WITH BOTTOM CONNECTORS OF MAIN PCBA SUBASSEMBLY THROUGH OPENINGS IN CASE BOTTOM TO ENSURE PROPER ASSEMBLY.
4. INSTALL TOP CASE SUBASSEMBLY TO BOTTOM CASE SUBASSEMBLY. ENSURE PROPER GASKET POSITIONING.
5. REMOVE BATTERY DOOR TO EXPOSE THE CENTER SCREW LOCATION.
6. TORQUE M2.5 SCREW TO 50±2 IN-OZ [3.1±0.1 IN-LB].
7. TORQUE M3 SCREWS TO 80±8 IN-OZ [5.0±0.5 IN-LB].
8. FASTEN PREAMP HOLDER NOSE ONTO PREAMP HOLDER AND TIGHTEN.
9. PLACE LABELS AND BADGE INTO RESPECTIVE POCKETS; THE CAL LABEL SHOULD BE PLACED AFTER CALIBRATION HAS TAKEN PLACE.
10. REPLACE THE CASE BATTERY DOOR.

SIZE	NUMBER	REV.
B	S831C.XX	G
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