MV-217 X'TAL Design

2020/07/06

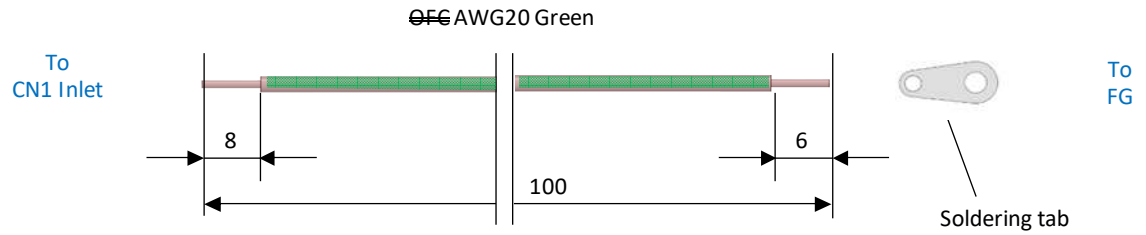
Assy

Wires

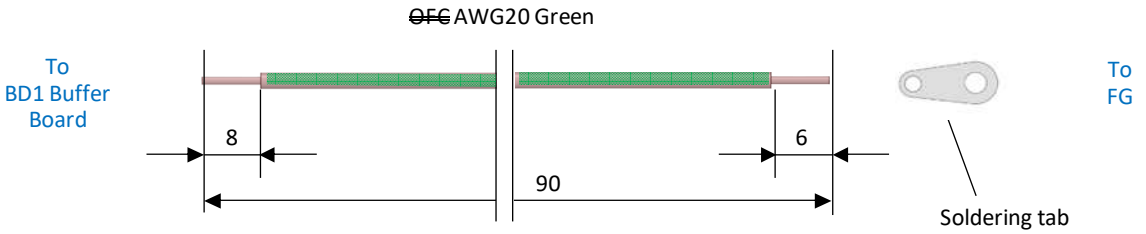
Tools: wire stripper, cutter, nipper, connector plier, soldering iron

Unit: mm

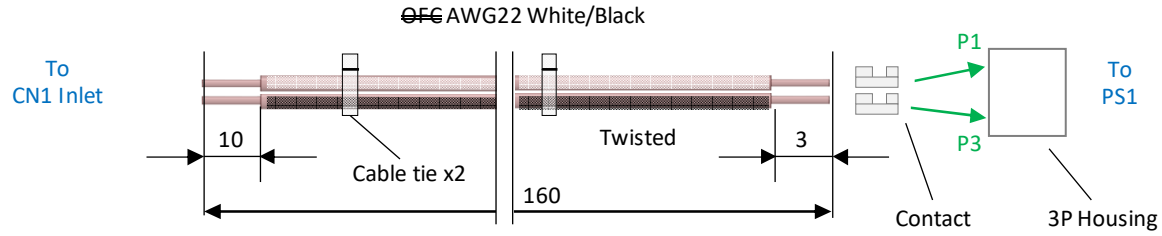
*** W1 Ground wire**



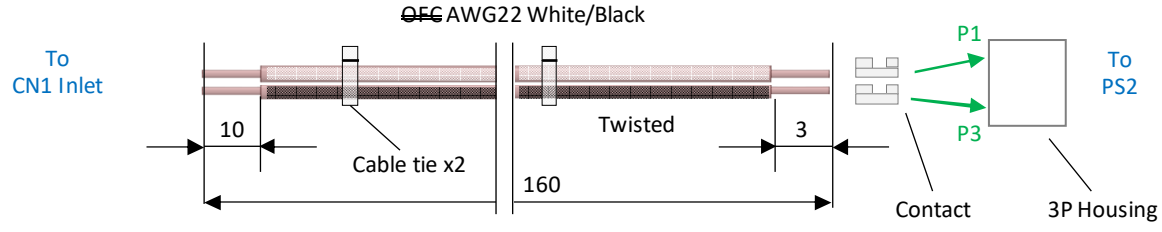
*** W2: Ground wire**



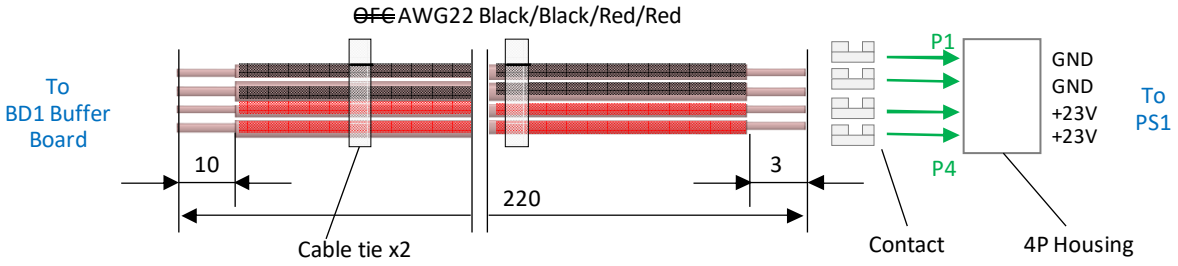
*** W3: AC power**



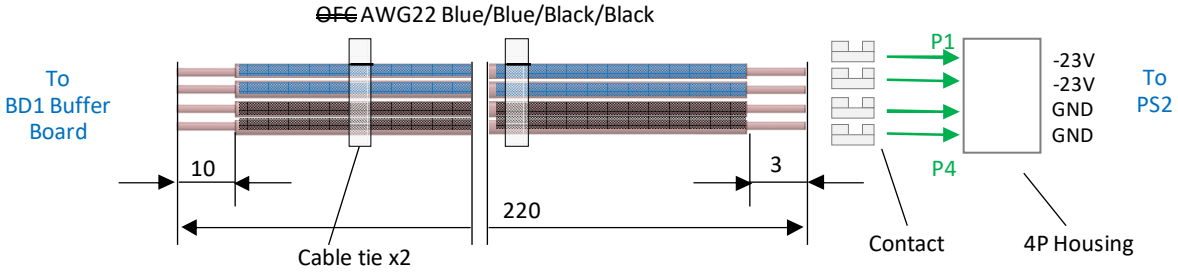
*** W4: AC power**



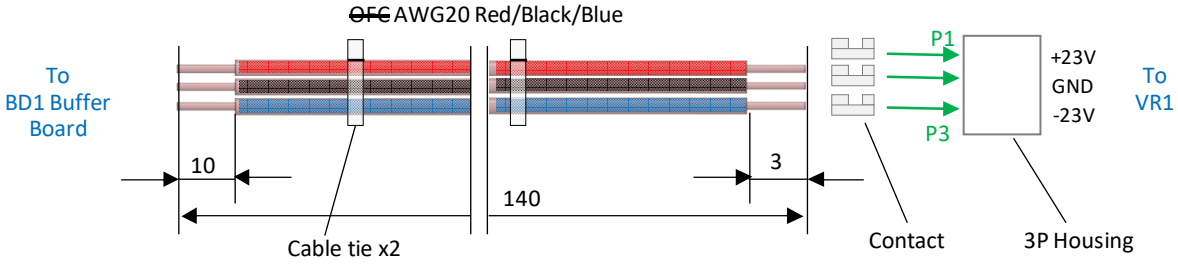
*** W5: DC power +23V**



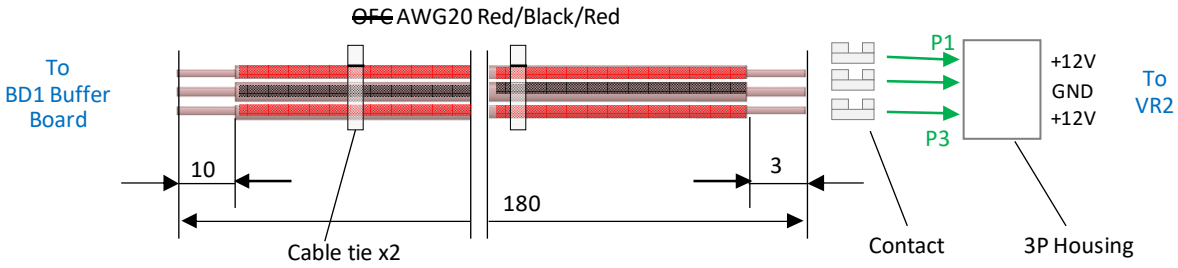
*** W6: DC power -23V**



*** W7: DC power +/-23V**

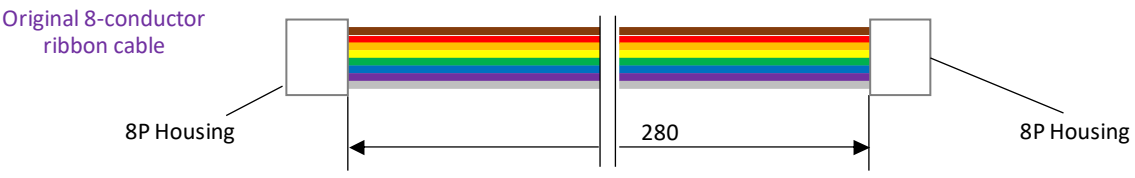


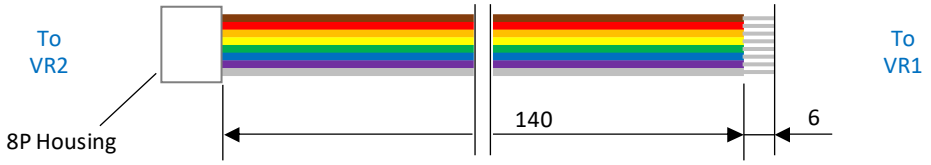
*** W8: DC power +12V**



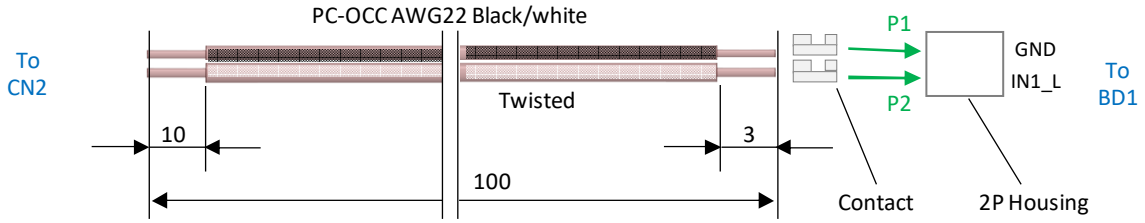
*** W9: Control signals**

This cable comes with VR2 (AEDIO EVR-DISP1). It is too long. Cut it in half.

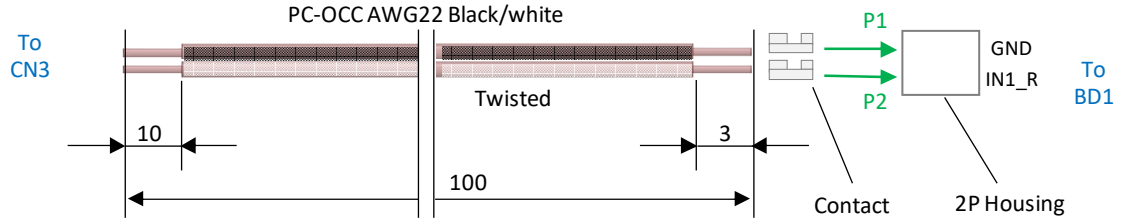




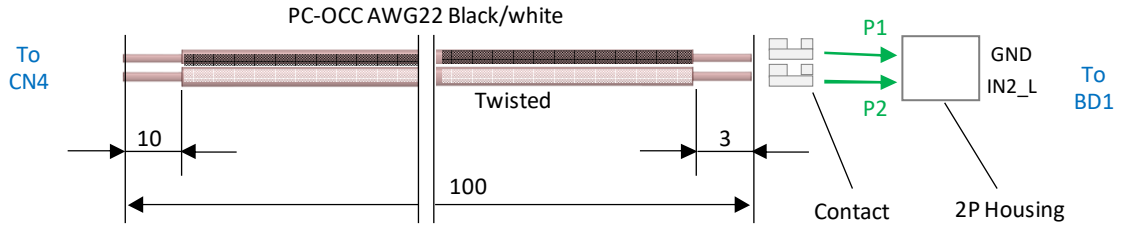
*** W10: Audio signal**



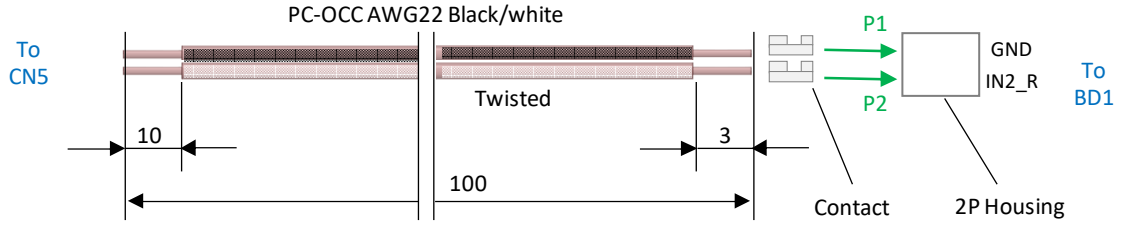
*** W11: Audio signal**



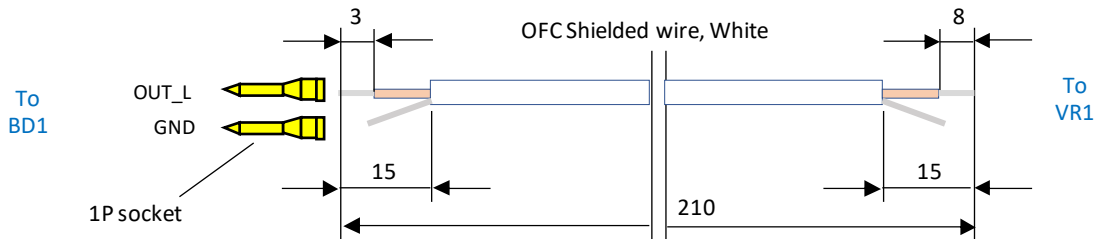
*** W12: Audio signal**



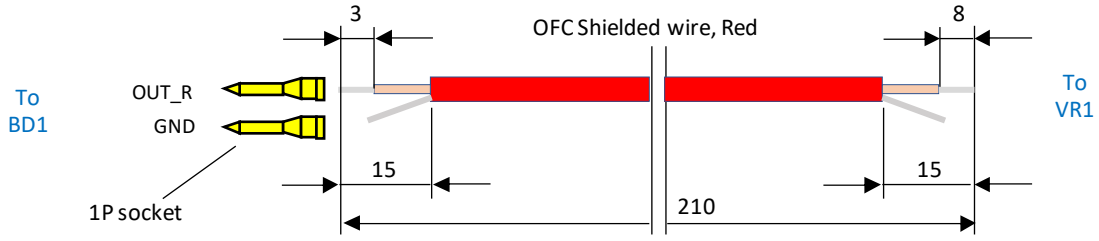
*** W13: Audio signal**



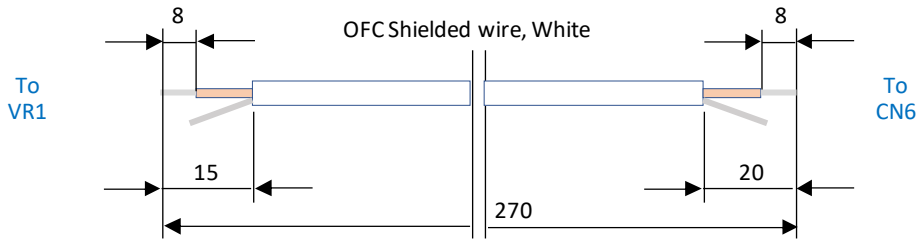
*** W14: Audio signal**



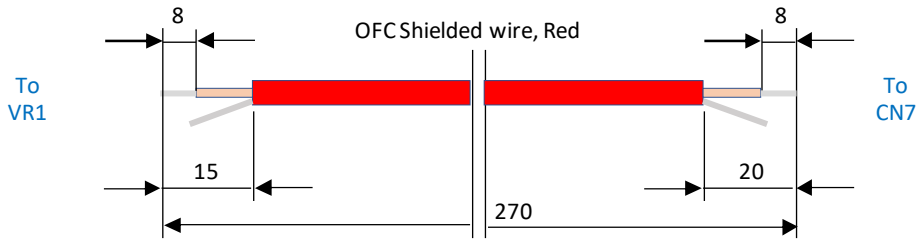
*** W15: Audio signal**



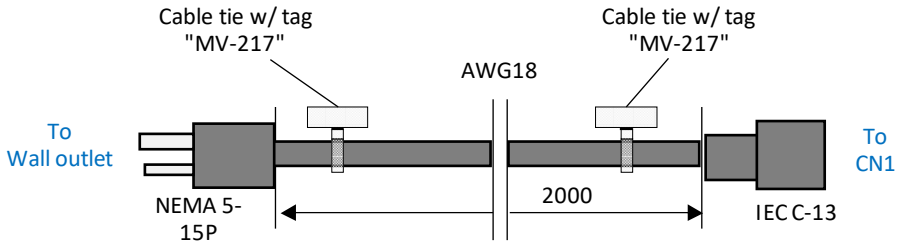
*** W16: Audio signal**



*** W17: Audio signal**



*** W18: AC power cable**

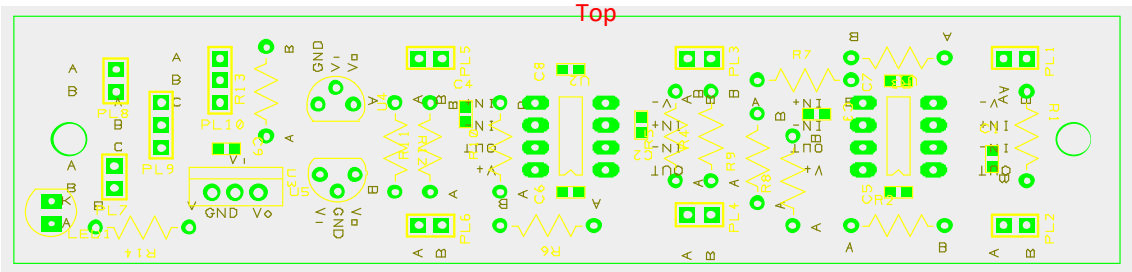


Buffer Board (BD1)

*** Inserting**

Insert components in the board, referring to the PCB design.

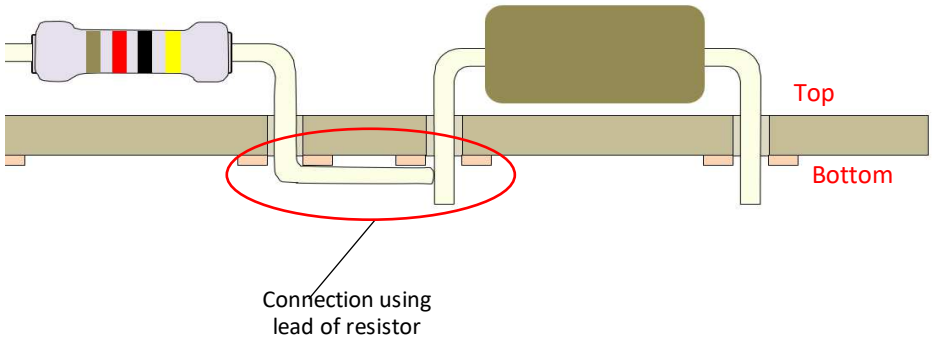
The following components are not inserted: capacitors C1-9, connectors PL7-10.



*** Soldering**

(1) Connect the components by using the leads of the resistors.

(2) Solder the soldering spots.



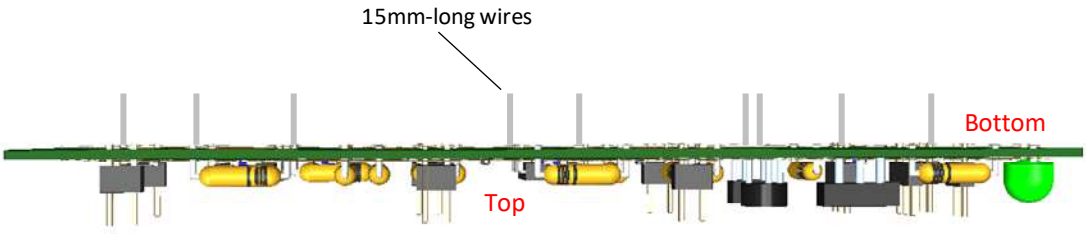
*** Attaching bus-bars**

(1) Insert 15mm-long stripped wires into through holes of the GND, +V, -V pins of the ICs on the bottom side.

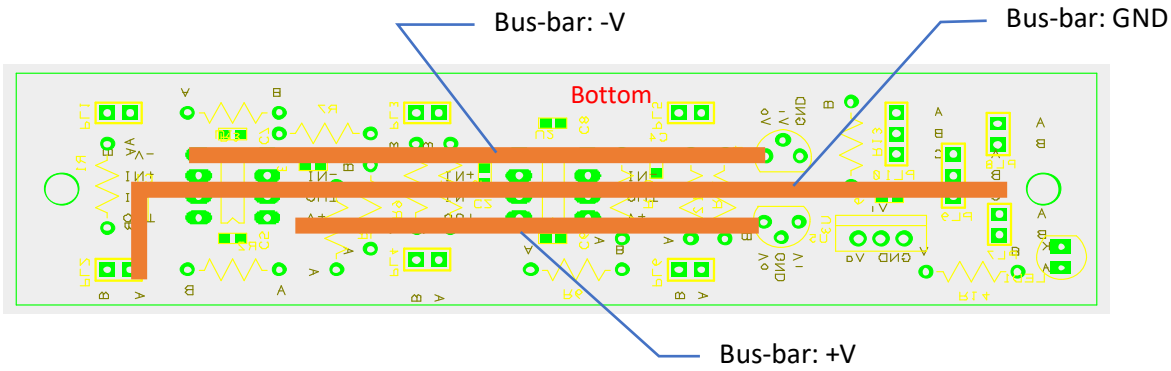
GND: P2 of U3, P1 of U4, P1 of U5, P1 of PL1, P1 of PL2, P2 of PL9

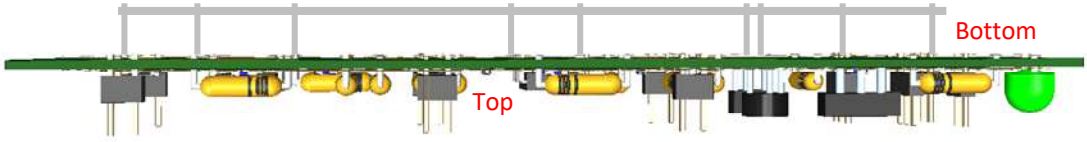
+V: P8 of U1 and U2, P1 of U3

-V: P4 of U1 and U2, P3 of U4



(2) Solder the bus-bars of GND, +V, -V on the bottom side.



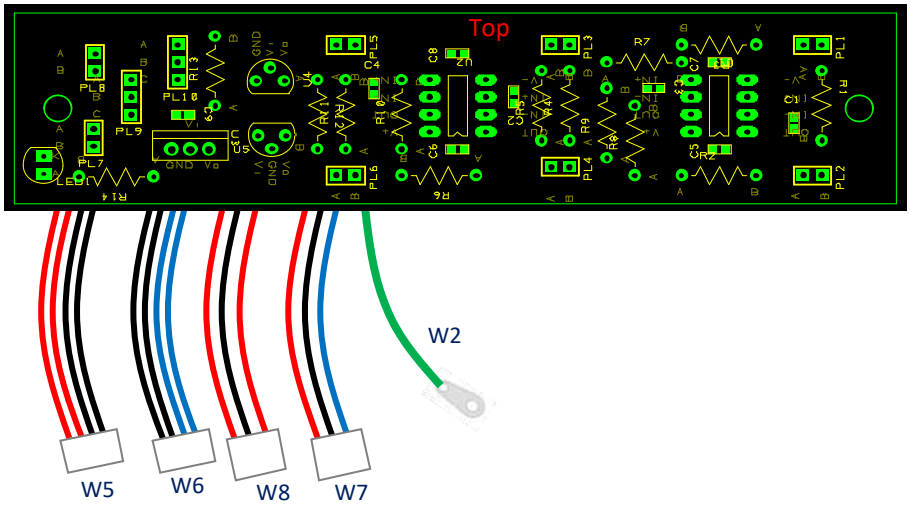


*** Soldering capacitors**

Solder the capacitors, C1-9, on the bottom side.

*** Soldering wires**

(1) Solder W2 with the GND bus-bar near U3, U4.
(2) Solder W5 with GND and +V bus-bars near the U3.
(3) Solder W6 with GND and -V bus-bars near the U4.
(4) Solder W7 with GND, +V and -V bus-bars near the U3 and U4.
(5) Solder W8 with GND bus-bar and R13.



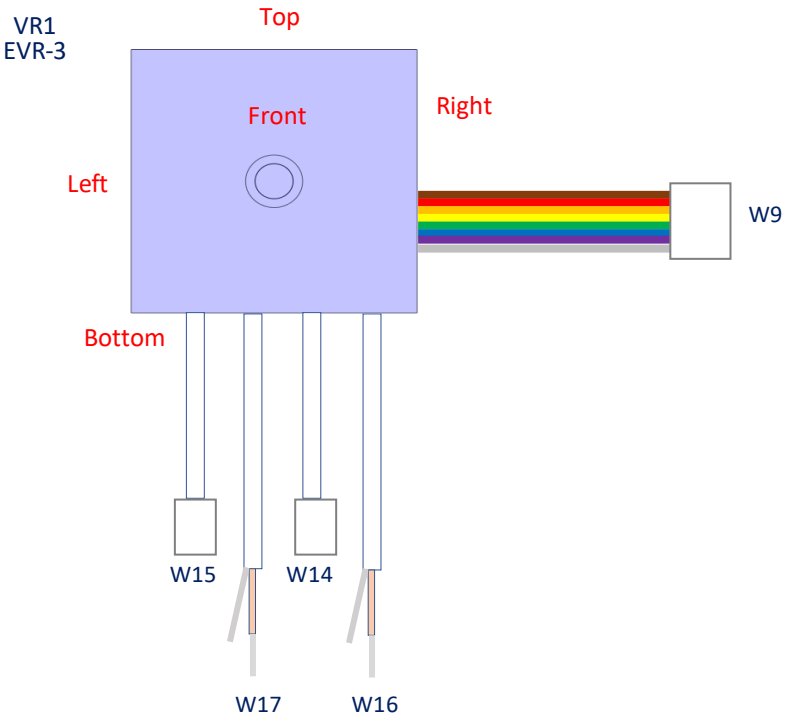
*** Finalize**

(1) Ground the unused rounds with solder bridges.
(2) Trim the leads of the components.
(3) Clean the board.

Electronic Volume

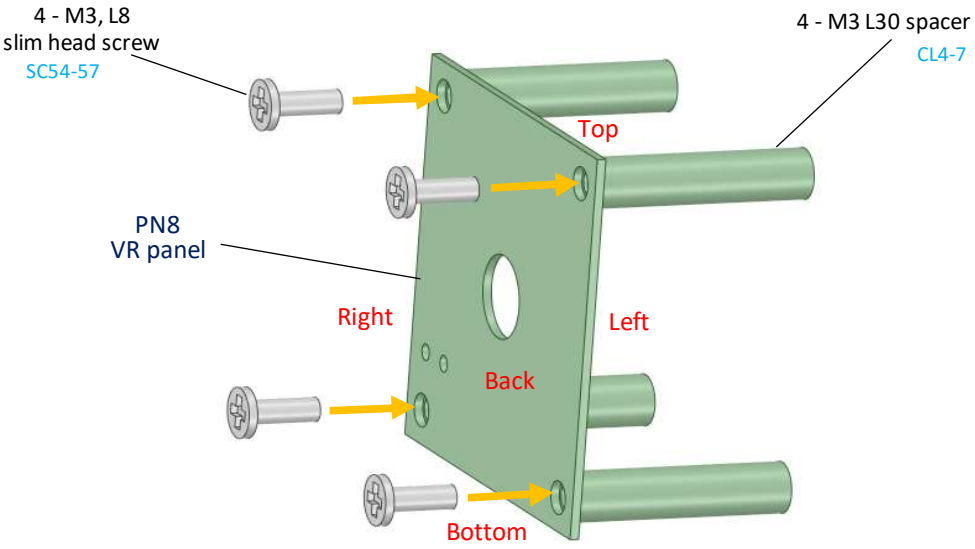
*** Soldering wires**

(1) Solder W9 with the control signal pads.
(2) Solder W14 with L_{IN} and GND pads.
(3) Solder W15 with R_{IN} and GND pads.
(4) Solder W16 with L_{OUT} and GND pads.
(5) Solder W17 with R_{OUT} and GND pads.

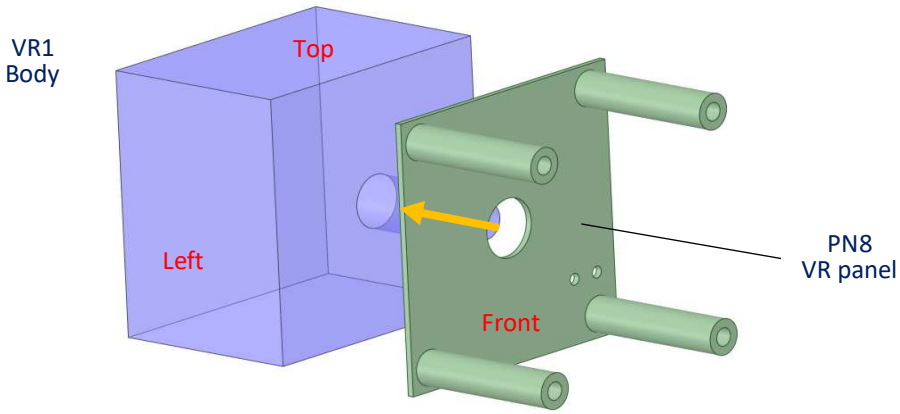


*** Assembling VR Panel (PN8)**

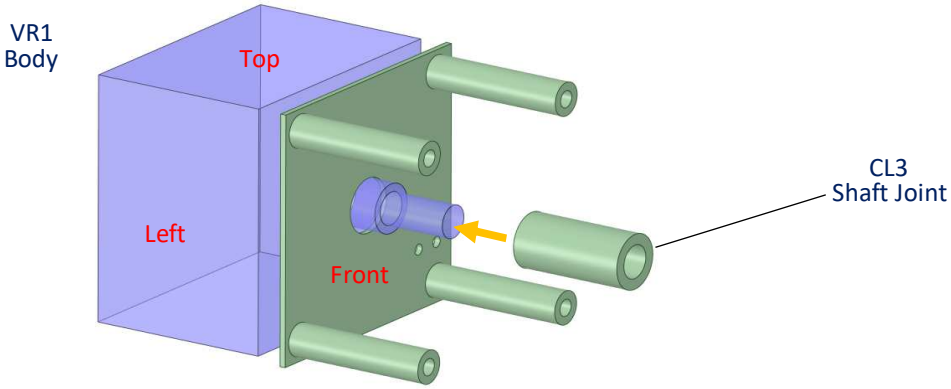
(1) Attach spacers to VR Panel.



(2) Attach VR Panel to EVR-3.

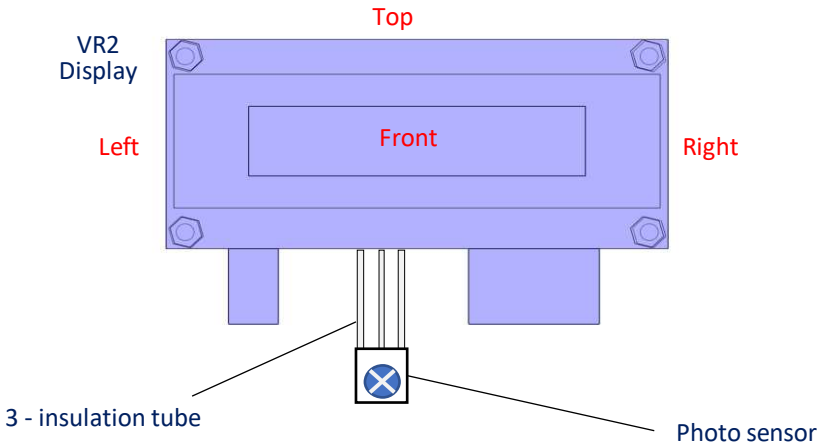


(3) Attach the shaft joint to EVR-3.



*** Assembling Display**

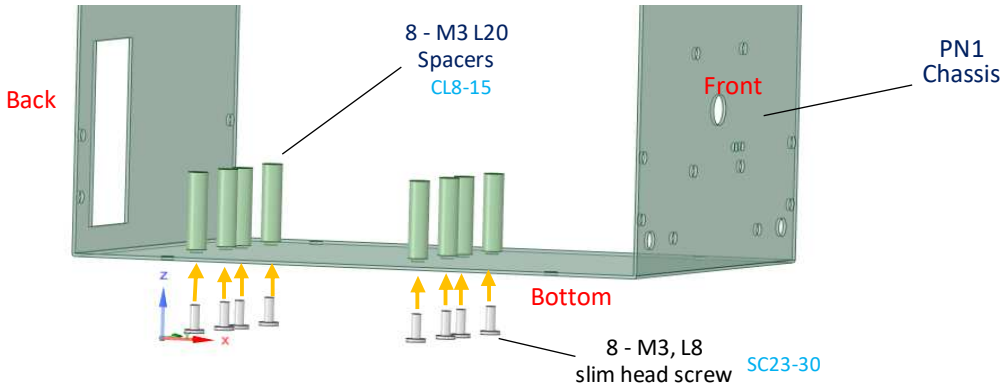
Solder the photo sensor to the display (VR2 Display).



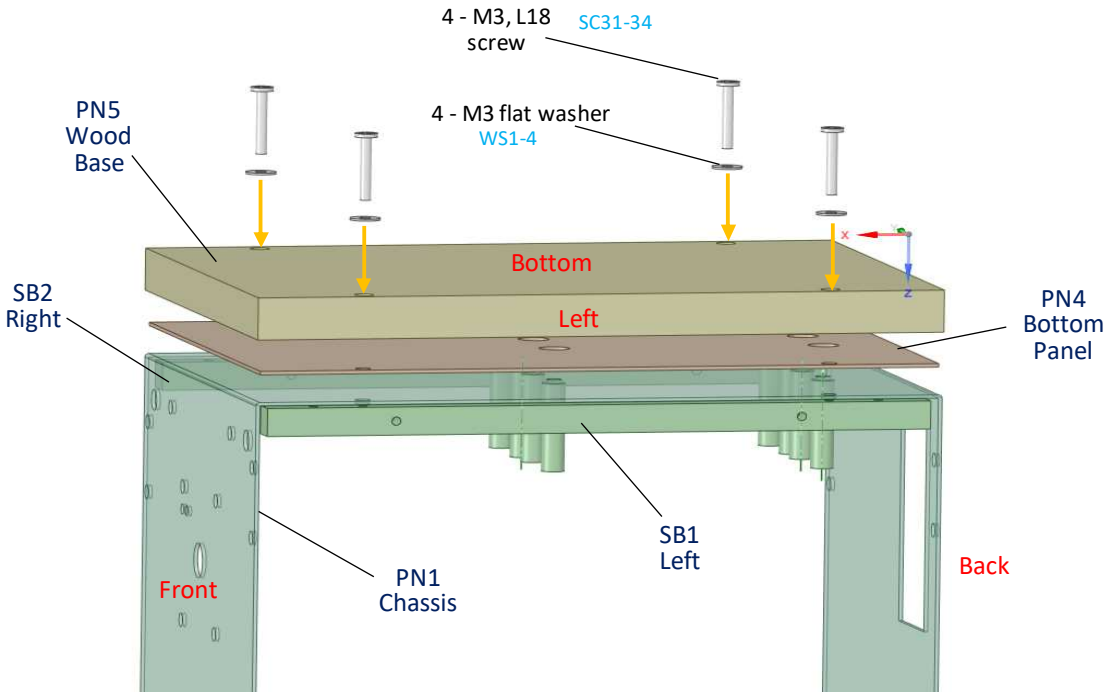
Chassis Assembly

*** Attaching Wood Base**

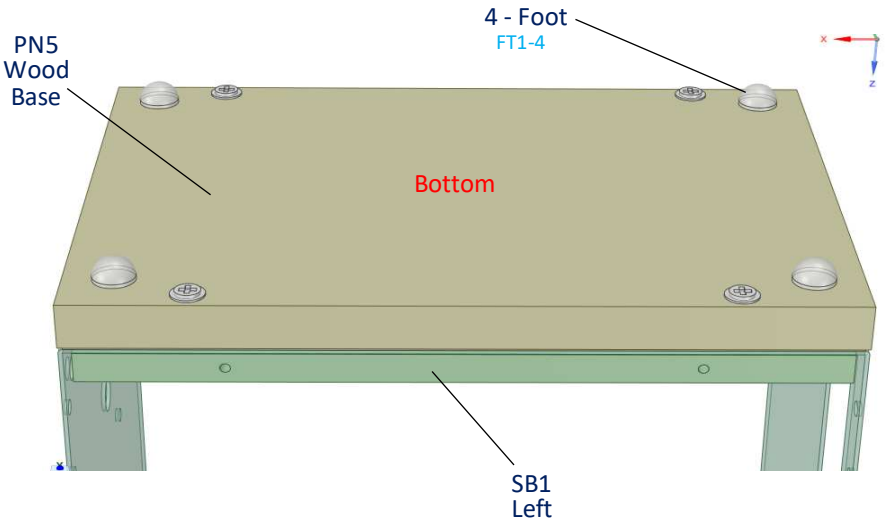
(1) Attach 25mm-long spacers to Chassis.



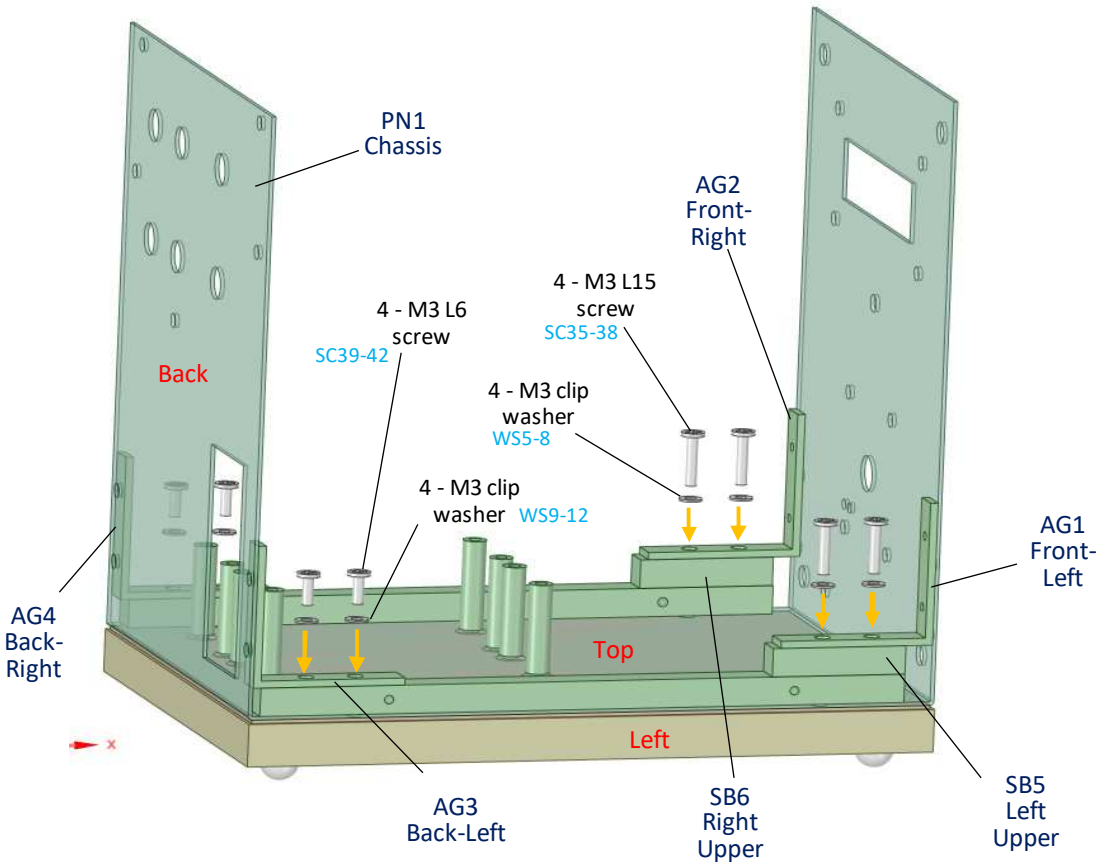
(2) Attach Bottom Panel and Wood Base to Chassis



(3) Attach four (4) feet to Wood Base

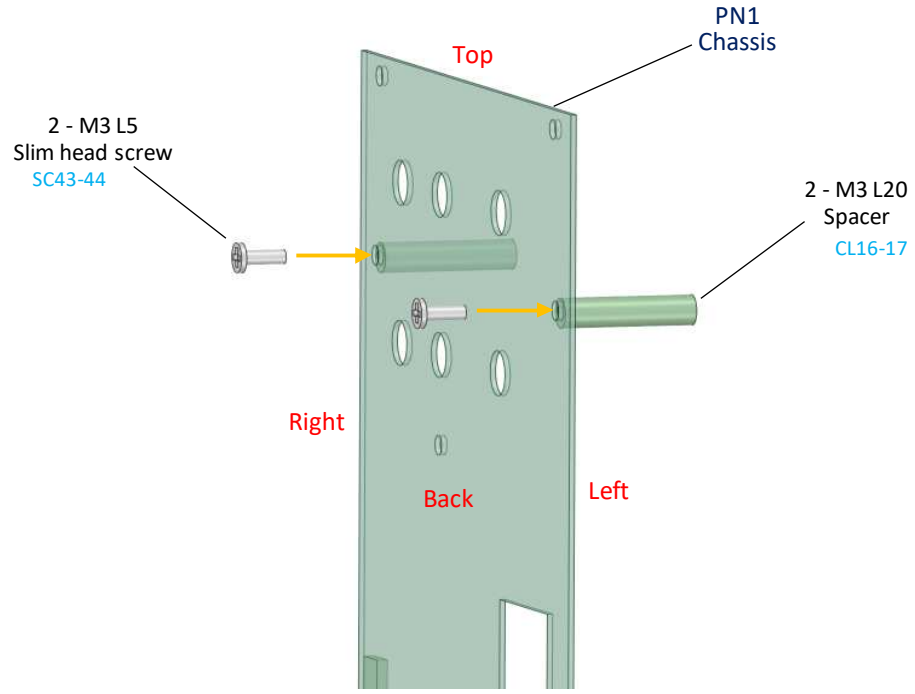


*** Attaching L-shape angles (AG1-4)**

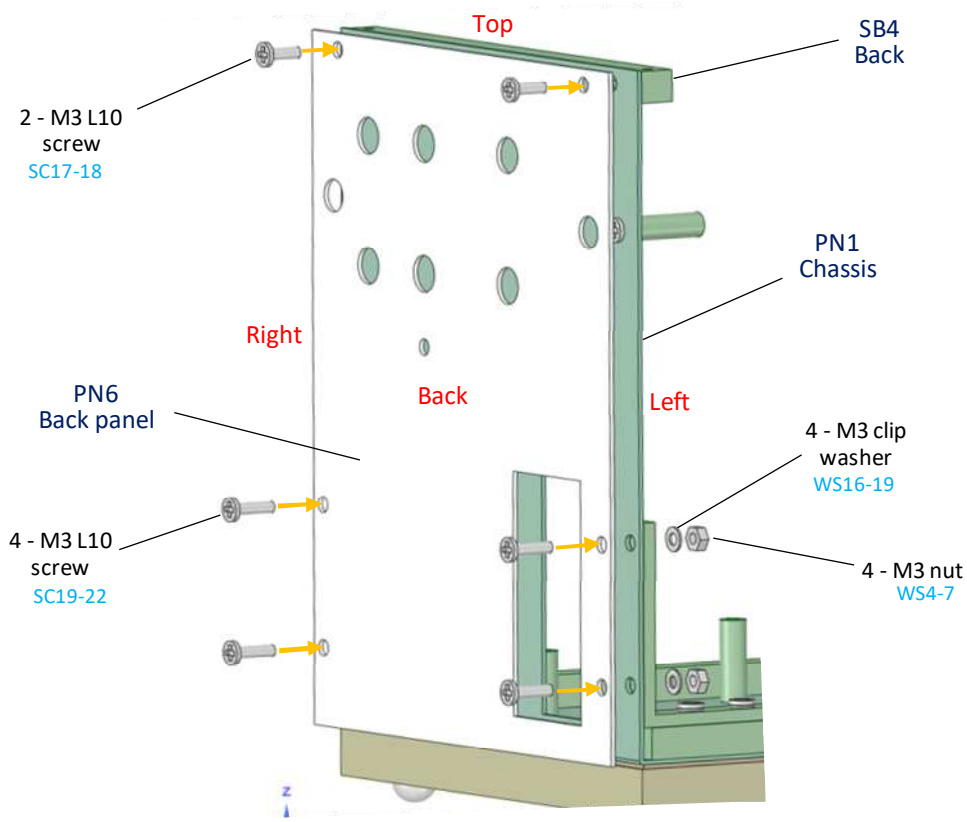


Back Panel Assembly

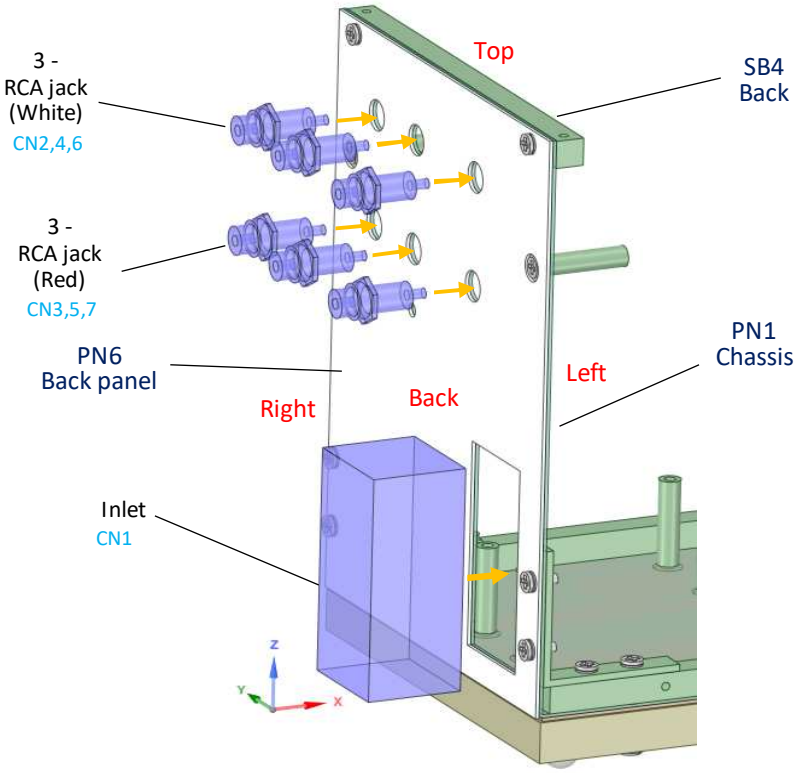
*** Attaching spacers to Chassis**



*** Attaching Back Panel to Chassis**

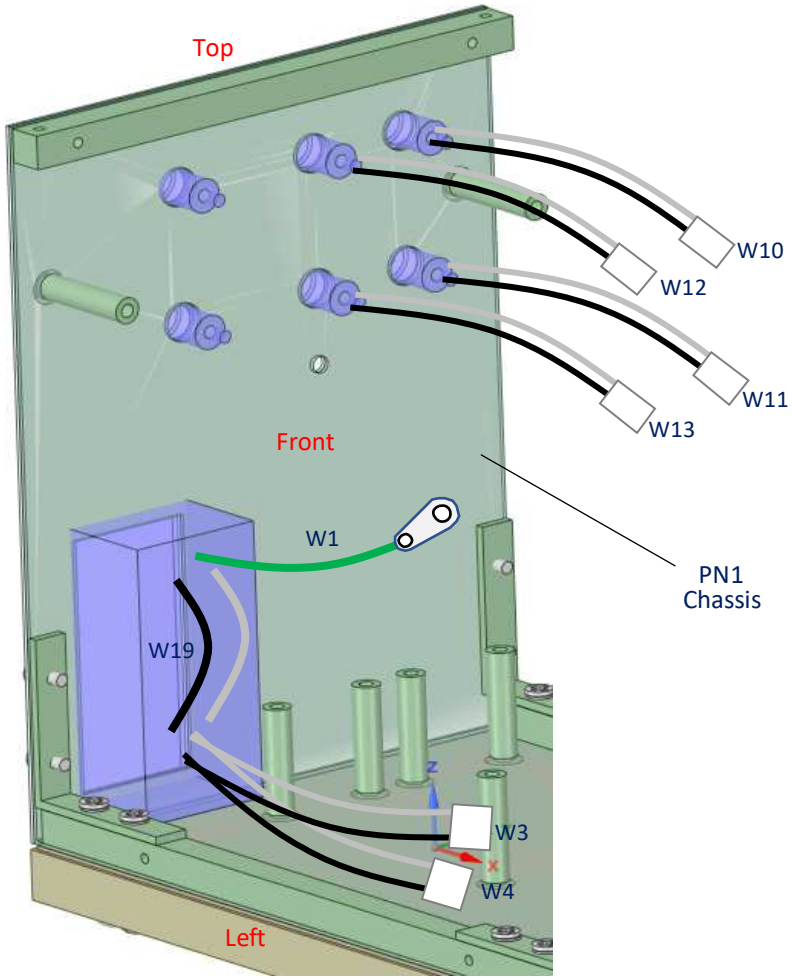


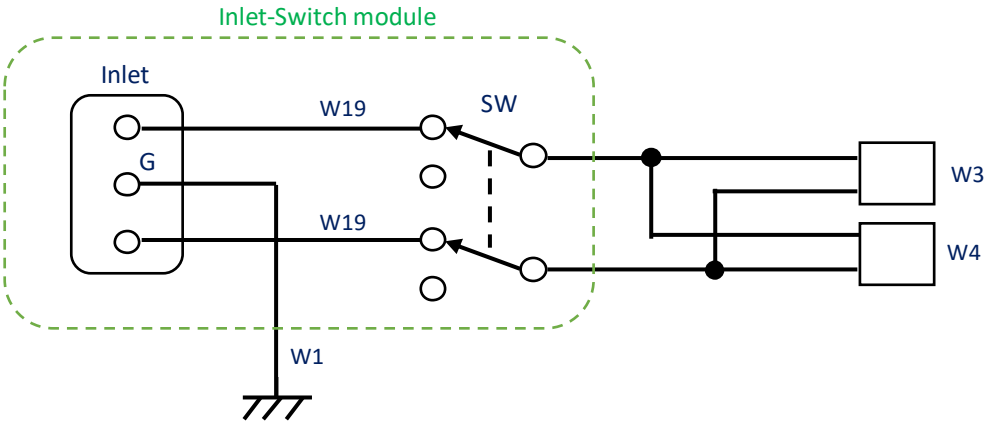
*** Mouting connectors**



*** Soldering wires**

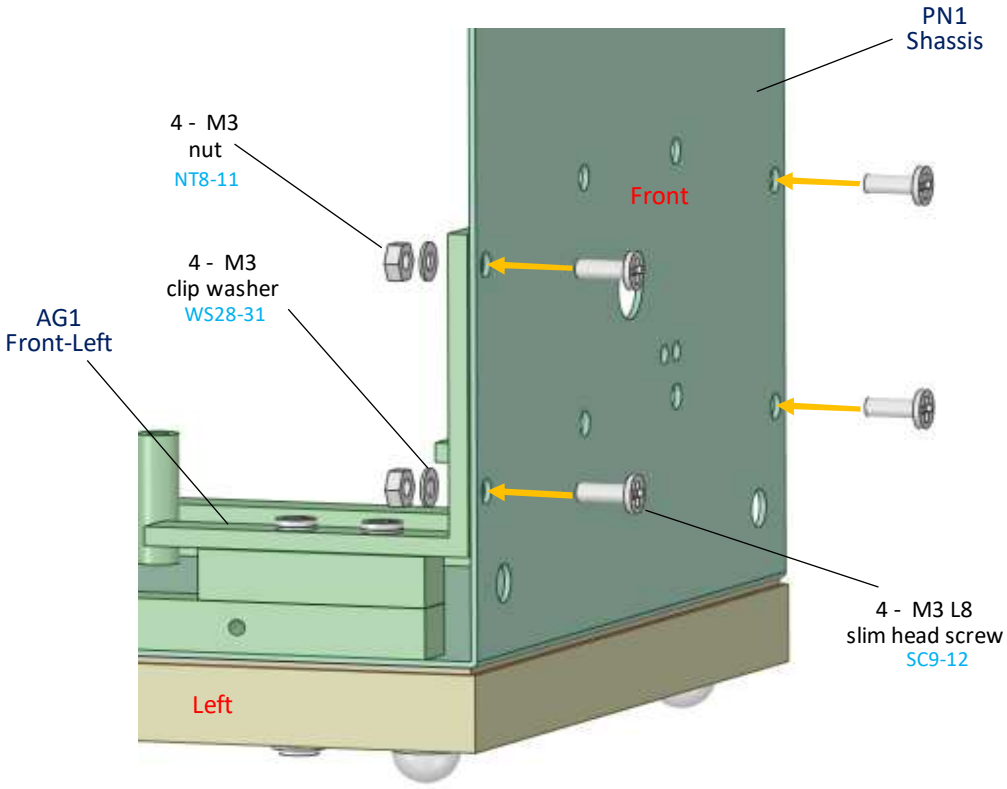
(1) Solder W1 to the FG of the inlet.
(2) Solder W19 to the inlet and switch.
(3) Solder W3, W4 to the switch.
(4) Solder W10 to CN2 (IN1_L).
(5) Solder W11 to CN3 (IN1_R).
(6) Solder W12 to CN4 (IN2_L).
(7) Solder W13 to CN5 (IN2_R).


Top
W10
W12
W11
W13
Front
W1
PN1
Chassis
W19
W3
W4
Left

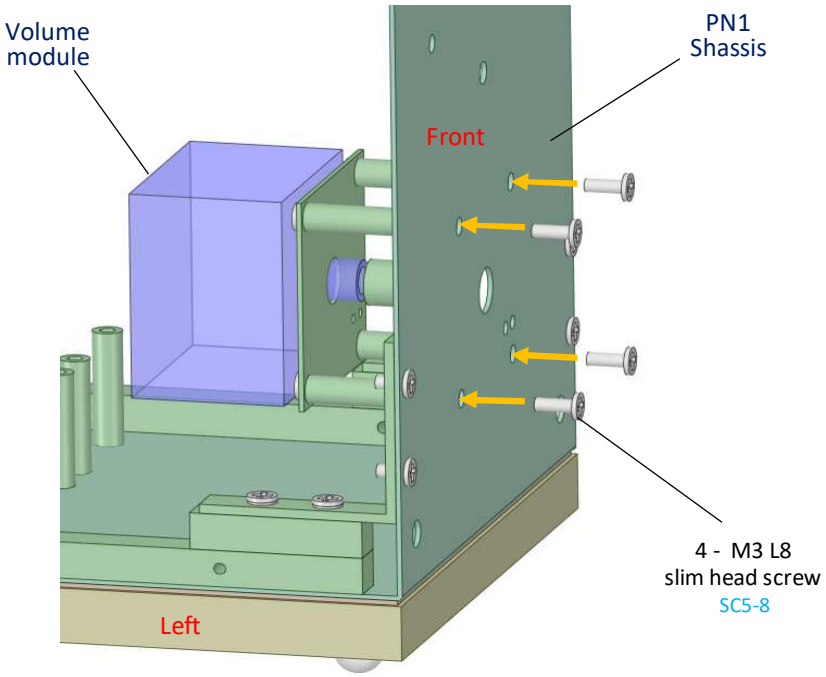

Inlet-Switch module
Inlet
W19
SW
G
W19
W3
W4
W1

Front Panel Assembly

*** Fixing angles to Chassis**



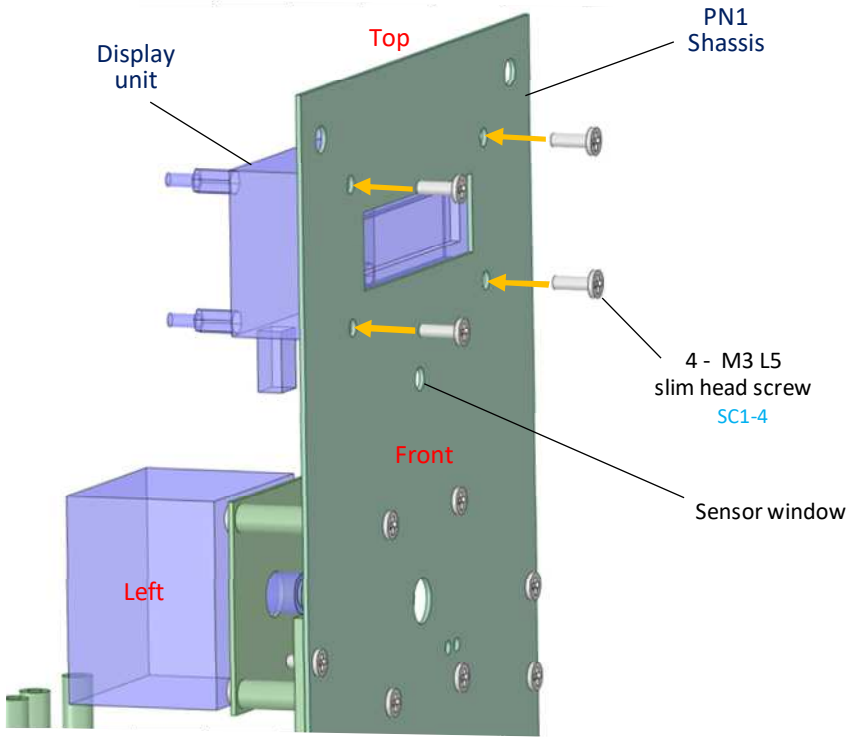
*** Attaching volume module to Chassis**



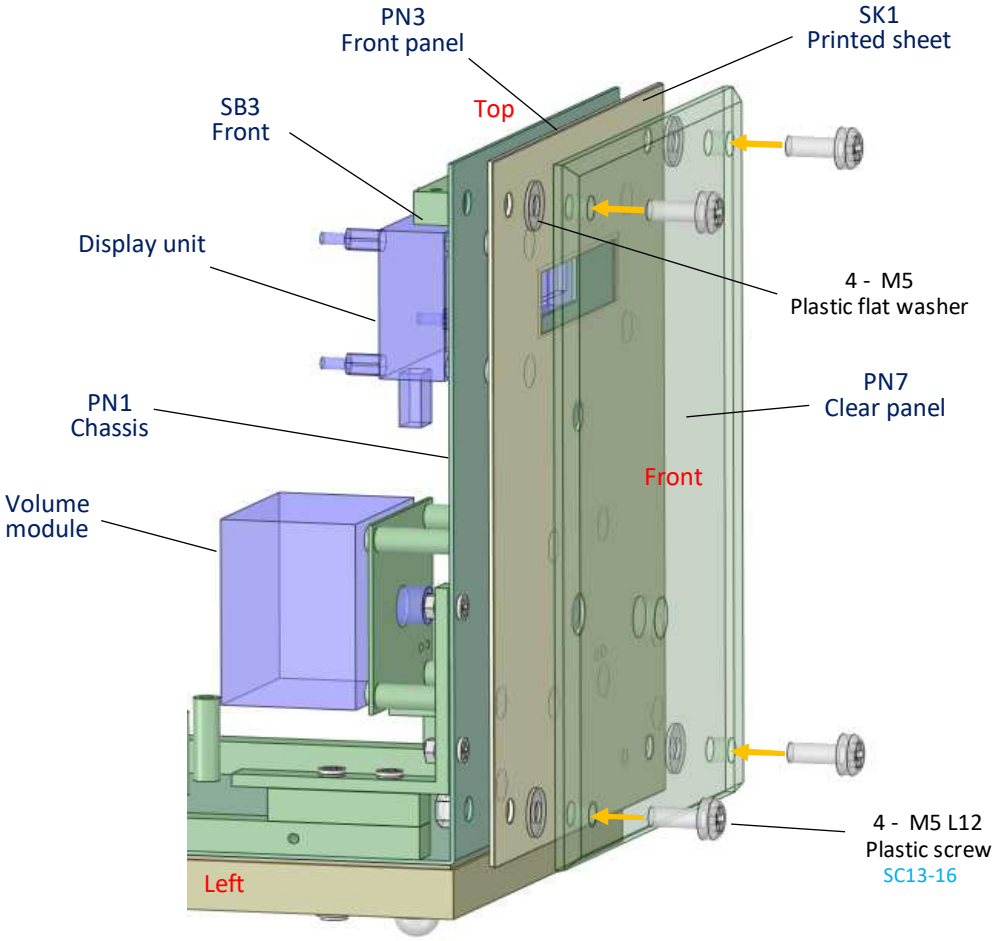
*** Attaching display to Chassis**

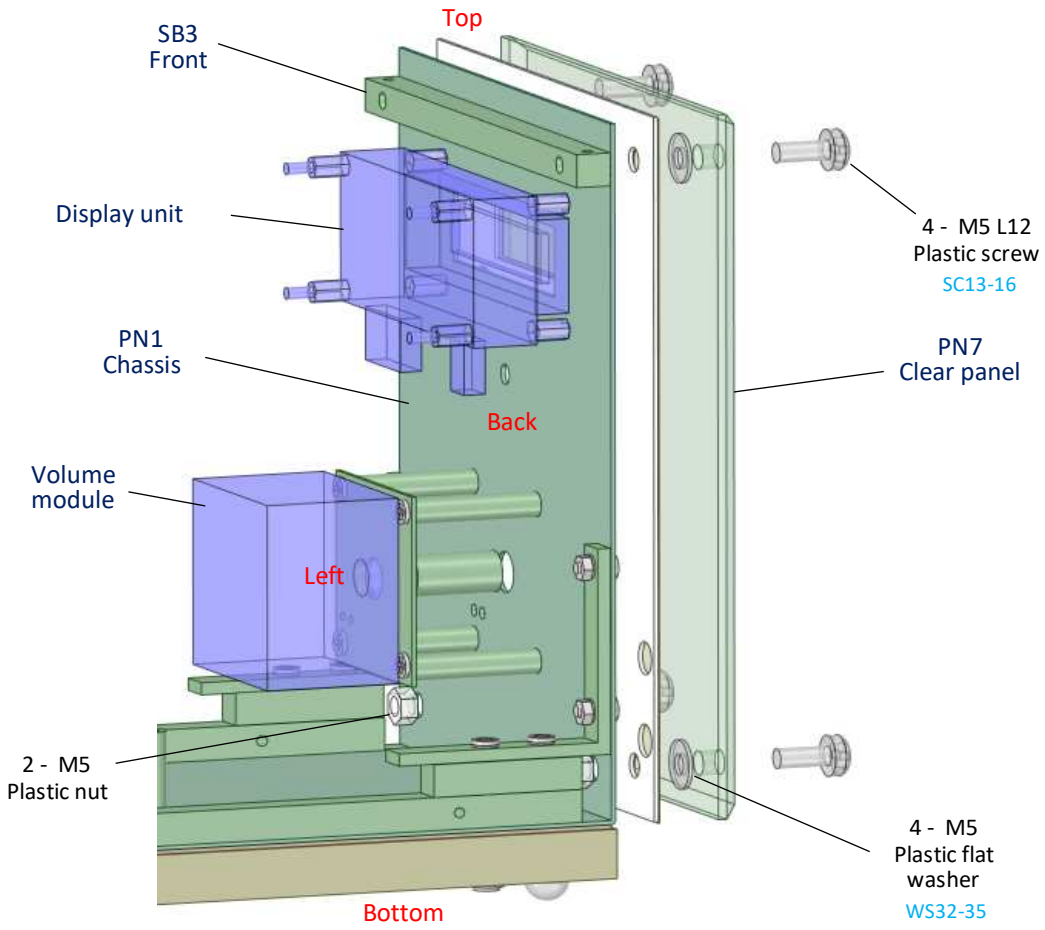
(1) Fix the display unit to Chassis.

(2) Put the photo sensor to the sensor window.



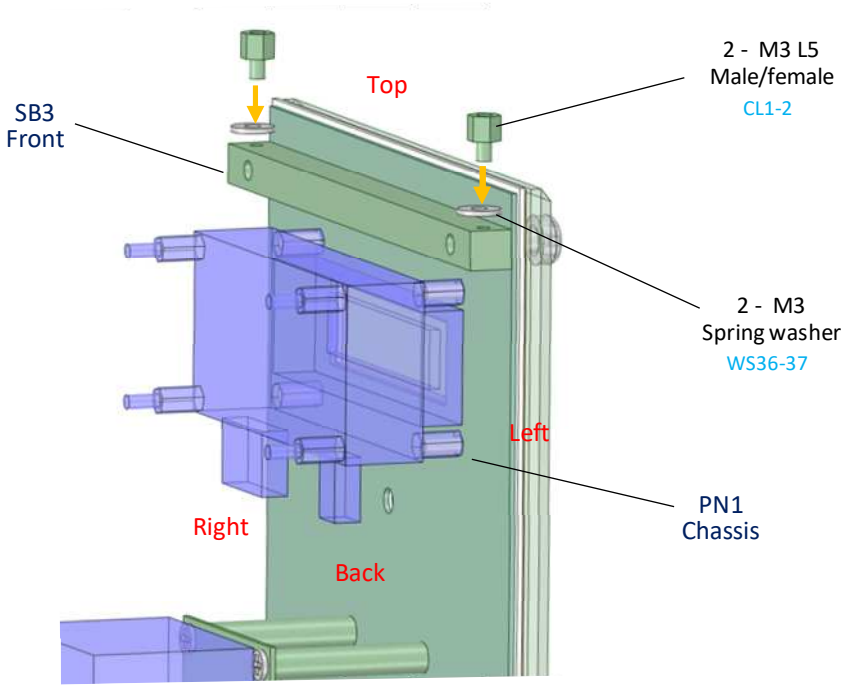
*** Attaching Front Panel and Clear Panel**





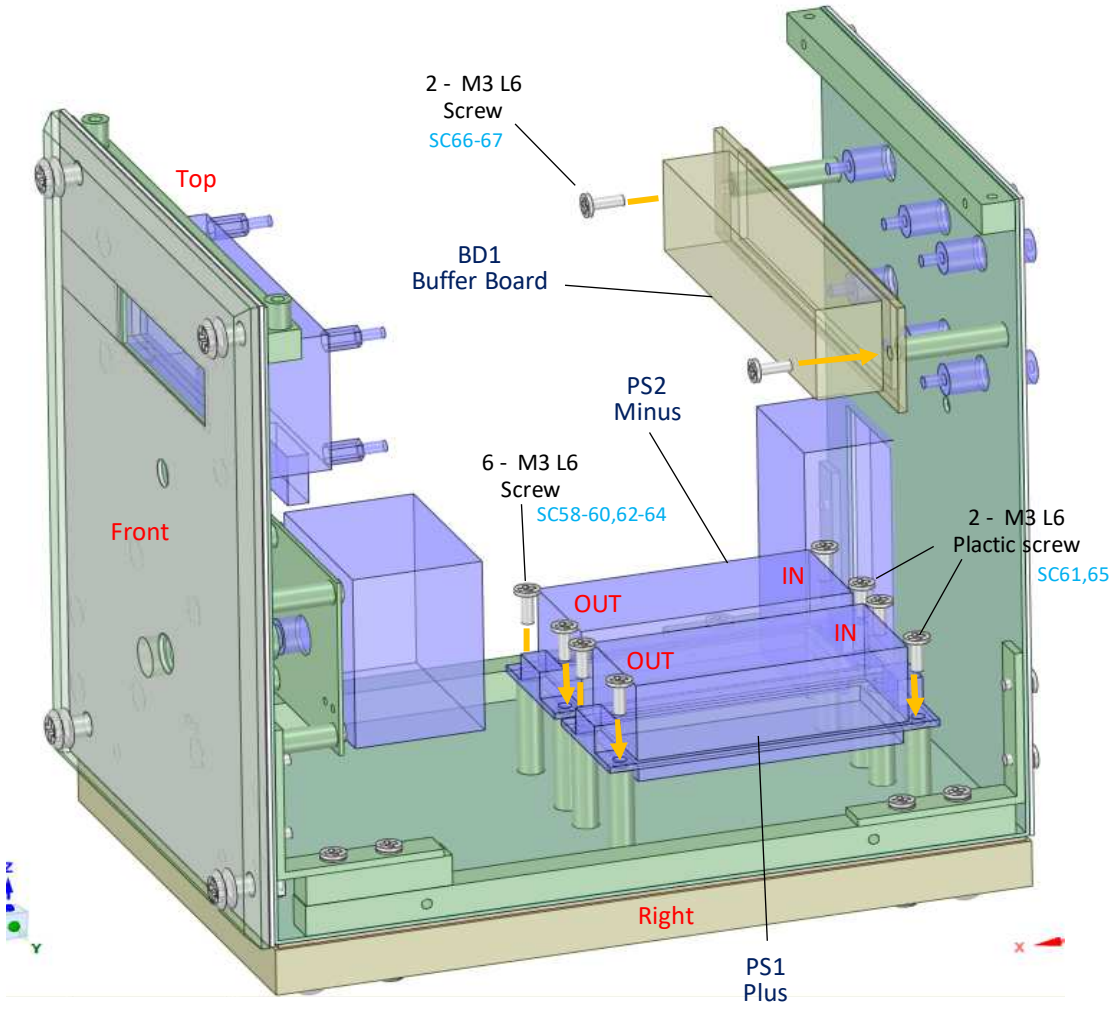
*** Fixing spacers to square bar (SB3)**

Fix the spacers with spring washers.



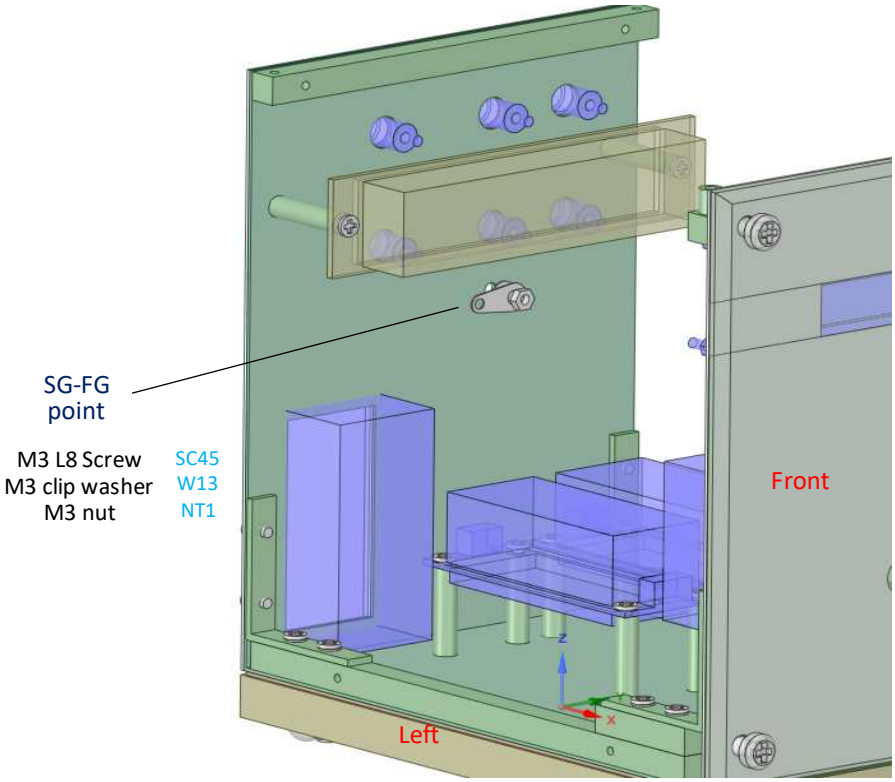
Mount of Remaining Modules

Fix the power supplies (PS1, PS2) and Buffer Board with M3 L6 screws.



Wiring

(1) Fix the soldering tabs of W1, W2 to the SG-FG point with M3 L8 screw, M3 nut and M3 clip washer.
(2) Connect W3, W4 to the inputs of the power supplies PS1, PS2, respectively.
(3) Connect W5, W6 to the outputs of the power supplies PS1, PS2, respectively.
(4) Connect W7 to the DC IN of VR1.
(5) Connect W8 to the DC IN of VR2.
(6) Connect W9 to the connector of VR2.
(7) Connect W10-W13 to the inputs of Buffer Board, PL1-PL4, respectively.
(8) Connect W14-W15 to the outputs of Buffer Board, PL5-PL6, respectively.
(9) Solder W16-W17 to CN6, CN7, respectively.



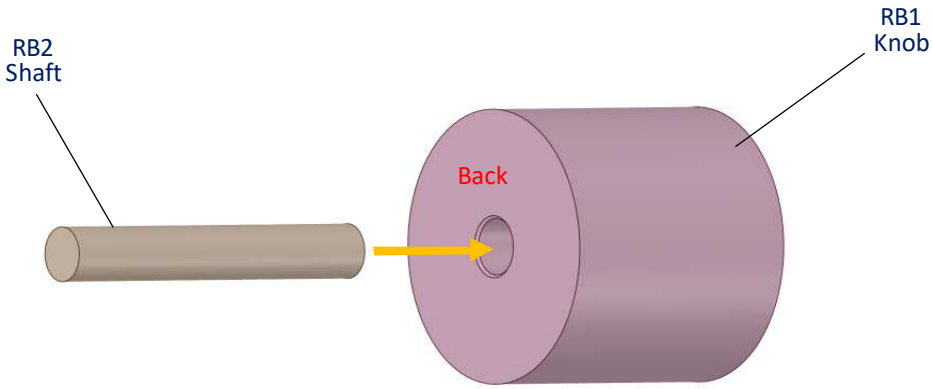
Attaching Knob

*** Attaching the shaft to the knob**

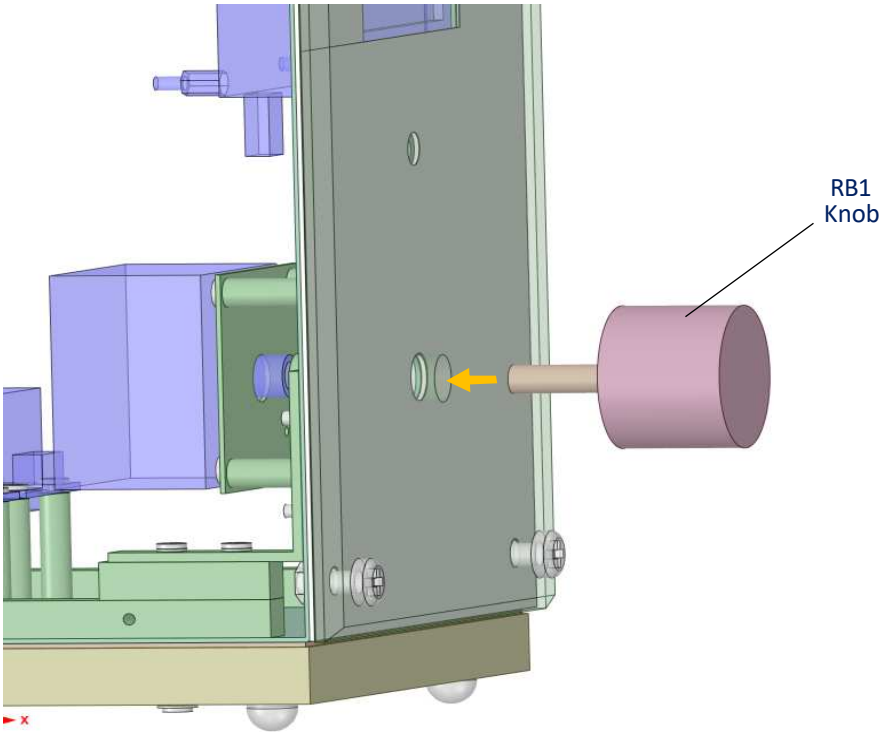
(1) Insert the shaft into the knob.

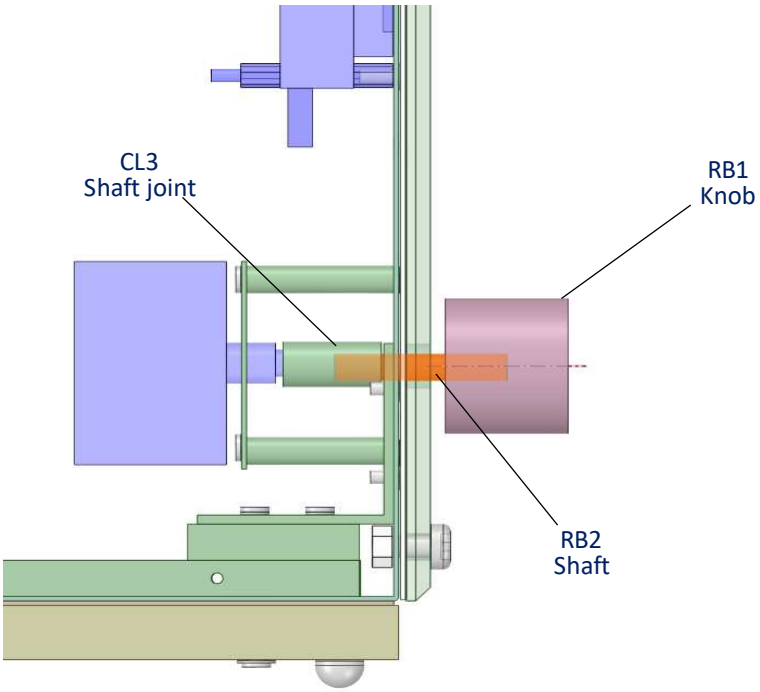
(2) Confirm the lengh of the shaft is right.

(3) Glue the shaft to the knob.



*** Attaching the knob to the volume module**



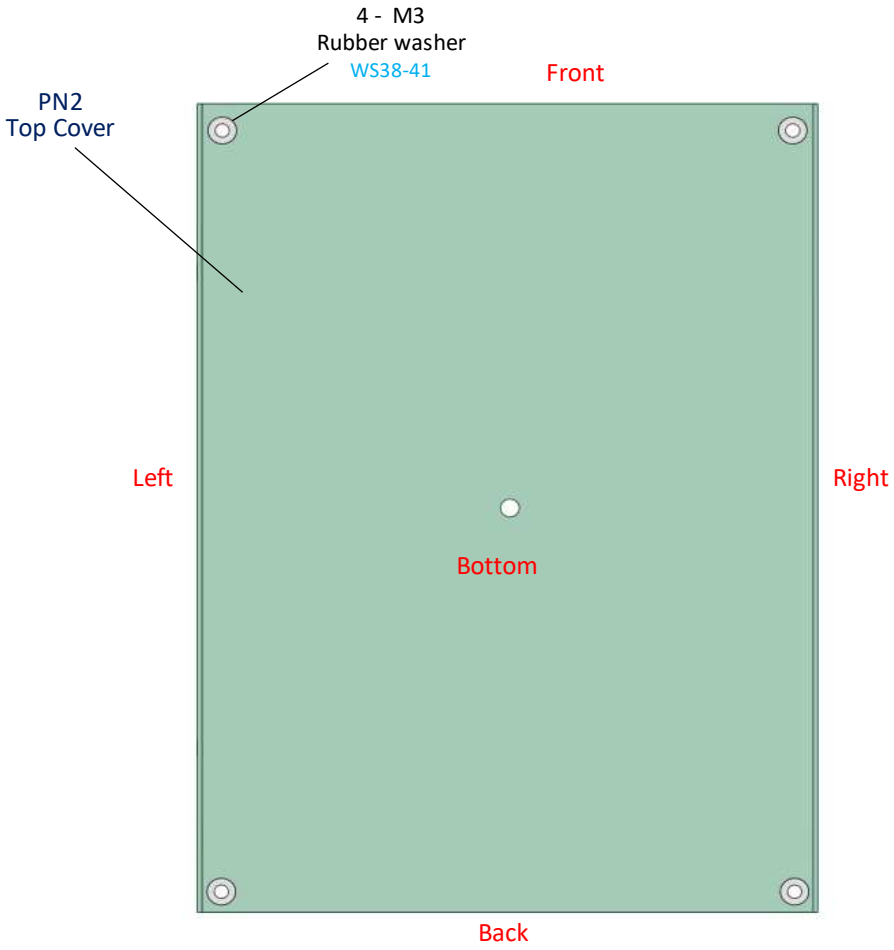


Fix the shaft (RB2) to the shaft joint (CL3).

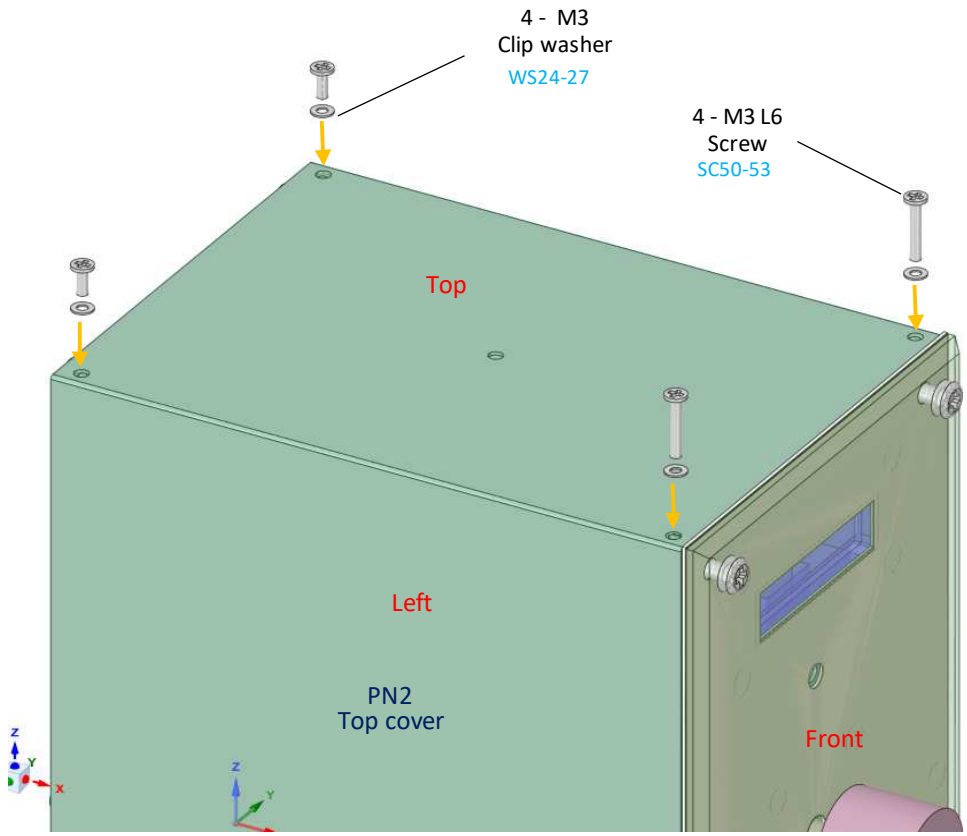
Attaching Top Cover

*** Affixing rubber washers on Top Cover**

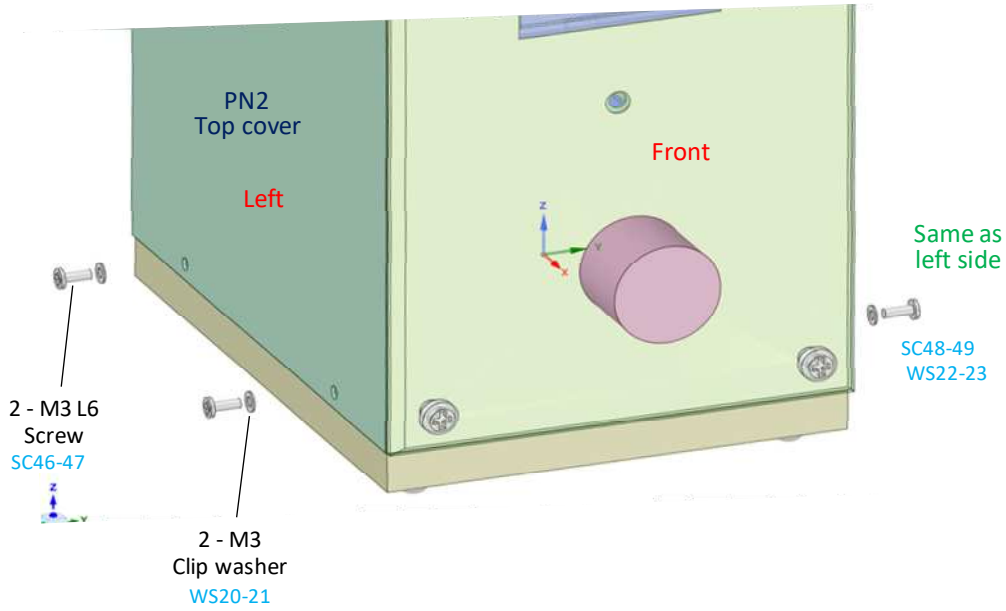
Affix rubber washers on the bottom side of Top Cover at the screw holes with bond.



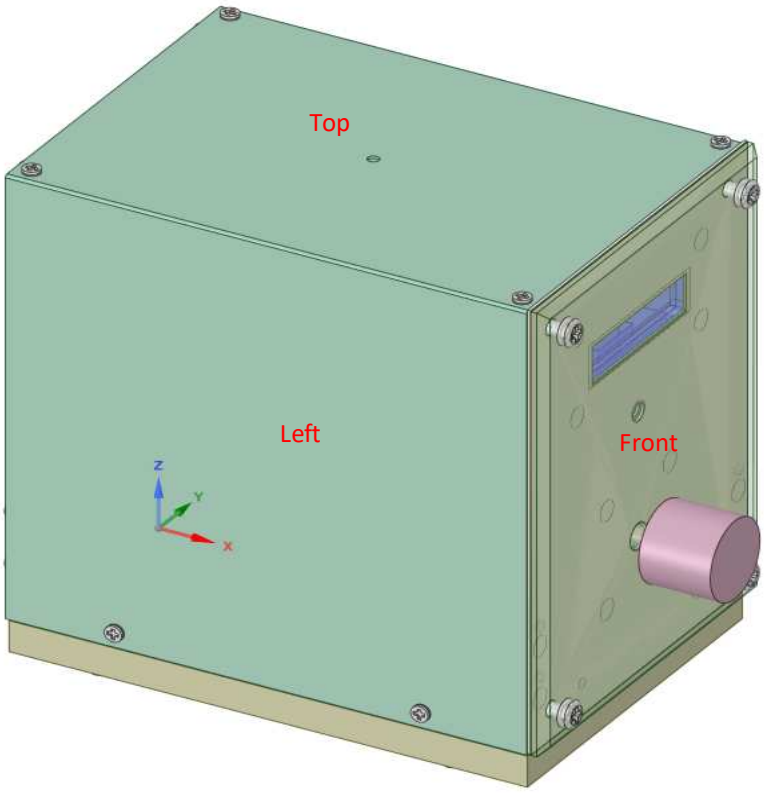
*** Fix the top side**

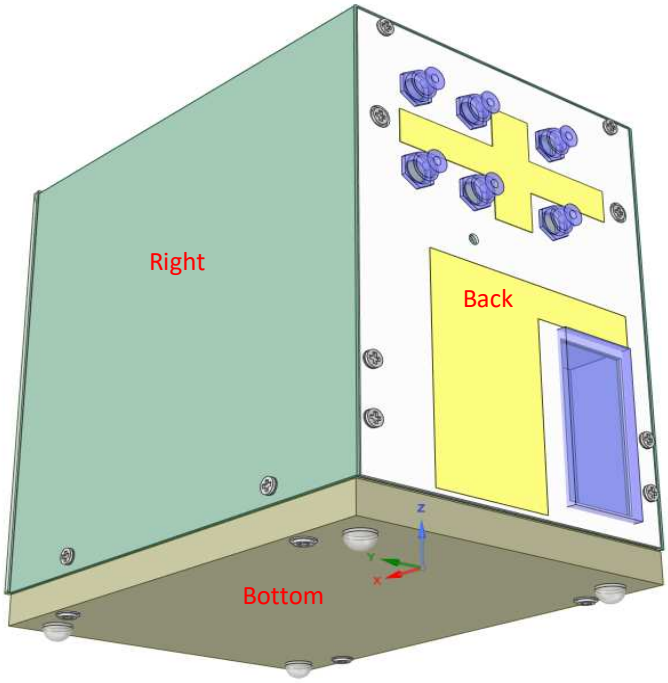


*** Fix the left and right sides**



Completed!





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