TITLE: SUB-ASSEMBLY #13 – HOOD TO BASE

Revision	Date	Modifications	Author
V1.0	21-04-2020	Setup first version (images and elaboration)	Jeroen Roest / Bart Spel
V1.1	27-04-2020	Translation Dutch to English	Jim Smit

This manual describes how the top cap needs to be placed on the ensembled bottom plate + chassis. Also, the parts which need to be connected to the top cap will be described.
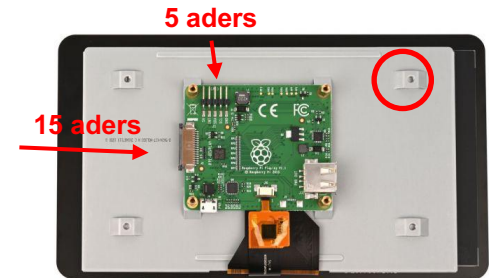
Part	Supplier	Quantity
Result sub-assembly 7 - Hood		1
Raspberry Pi kit: - Touchscreen 7" - Bolt (for attachment to terminal)	RS online	1
Loctite glue	Eriks	n.v.t.
Result sub-assembly 12 – Trolley to base		1
Grounding cable (AWG14)		1
Terminal ring M4		2
Bolt M4, 12 mm		1
Tooth lock washer M4		2
Nut M4		1
Ferrite core (18 mm x 0.9 mm)	Farnell	1
Push-in rivet	Essentra components	6
Sealing cap	Merkala	2

1.
- The grounding cable of the display and power supply needs to be made:
  - o There is one grounding cable (10 cm, AWG 14).
  - o Then, one grounding cable needs to be made of roughly 30 cm (AWG 14). It needs to be stripped on both sides and provided with terminal rings (M4).
  - o Both grounding cables need to be connected with the bottom plate by a M4 bolt (12 mm). Therefore, a M4 nut and tooth lock washer need to be used.
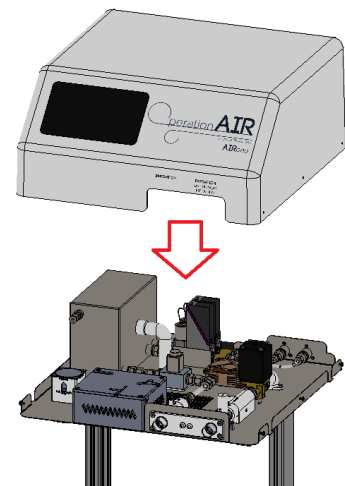
	Work Instruction:	
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(2.1)

- The data cable and power cable (15 and 5 cable cores respectively) need to be connected to the display (sub-assembly 6 and Figure 2.1). Therefore, a ferrite core needs to be added to the cable with the 15 cable cores (sealed in aluminium tape, 18 mm x 0.9 mm).
- Ground the display using an assembled grounding cable from step 1 (yellow/green, roughly 30 cm). This needs to be assembled separately.

2.
- Connect a terminal of the side of the display (circle Figure 2.1). Here, a tooth locked washer needs to put in between and fastened by one of the bolts provided by the Raspberry Pi kit.
- If the connections are made, the top cap be be placed completely on the bottom plate (Figure 2.2). The bottom plate has cutouts, by which the top cap is supported. Please note, all the bent parts (facing up) of the bottom plate need to be **inside** the top cap.
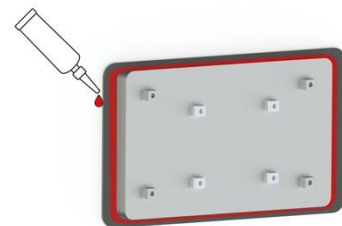

(2.2)

- When the top cap is attached, the display needs to be placed.
- Therefore, take the display through the cutout and move it through the cutout.
- Outline the display with the cutout and fasten it. Do this without attaching the display completely to the top cap (Figure 3.1).

3.
- Then, the outer edge of the backside of the display and the outer edge of the cutout in the top cap need to be provided with a thin layer of Loctite (4601) (Figure 3.2).
- Now, press the display, keep the pressure for roughly 30 seconds.
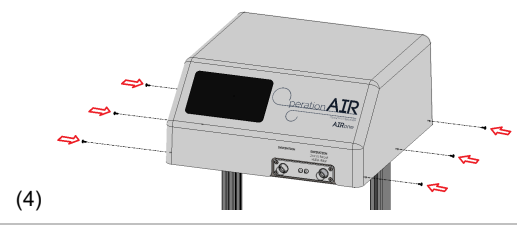- Now, check whether the display is tightened well.

(3.1)

(3.2)

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4.	● Now, the top cap needs to be attached to the bottom plate using push-in rivets (Figure 4).	(4)
5.	● When to top cap is attached, the sealing caps need to added to the frontside of the machine (to the inspiratory and expiratory tubes).	

If the assembly is done correctly, the result should look like the Figure below.