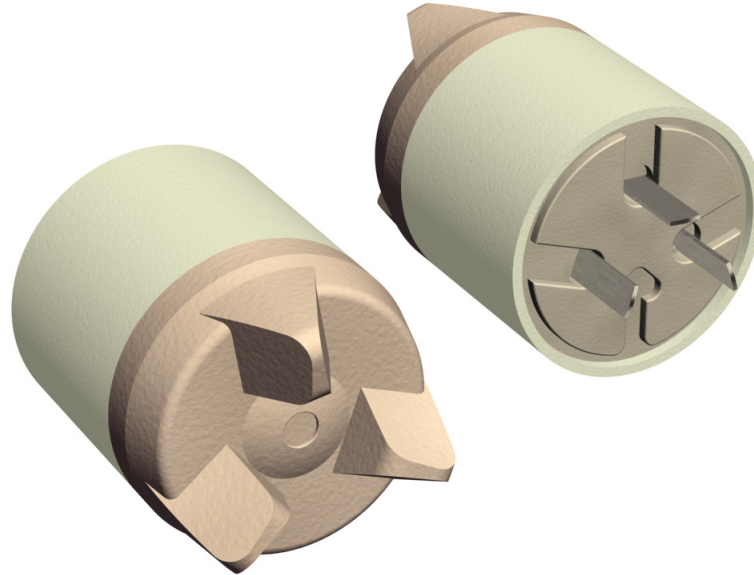


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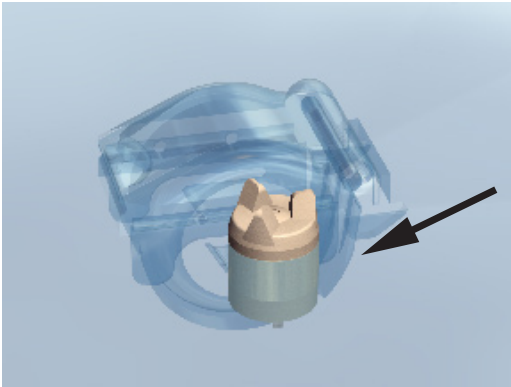
Digital Volume Control DCU 254

The purpose of this Application Note is to achieve optimal handling and processing of the Digital Volume Control DCU 254.

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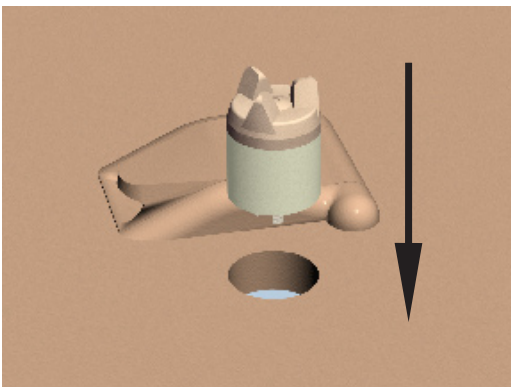


1. Handling

Handle the VC by the body to avoid mechanical stress to the leads.

2. Tools

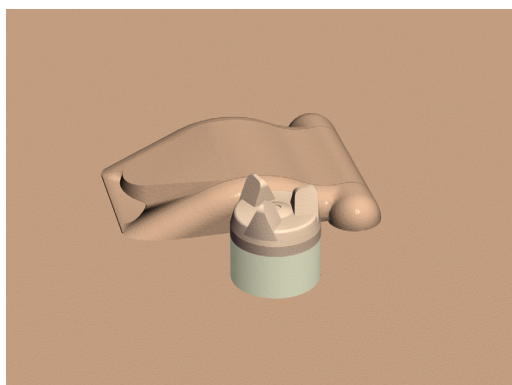
Proper tools should be used for cutting and bending, such as sharp cutters and soft-sided tweezers.



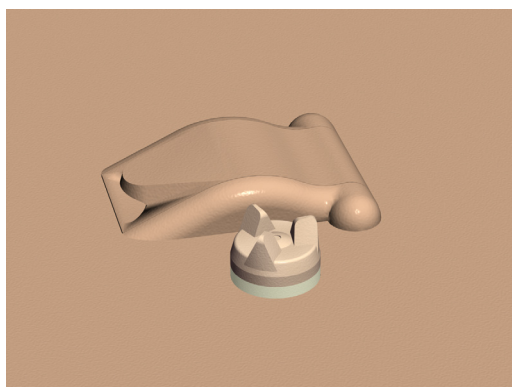
3. Mounting/Assembly

The diameter of the hole in the faceplate must fit the mechanical dimension of the volume control body. If the hole is too big, the adhesive bond may not be strong enough and the cosmetic appearance will be negatively affected. If the hole is too small, the volume control might be deformed during mounting and, subsequently, damaged during the soldering process.

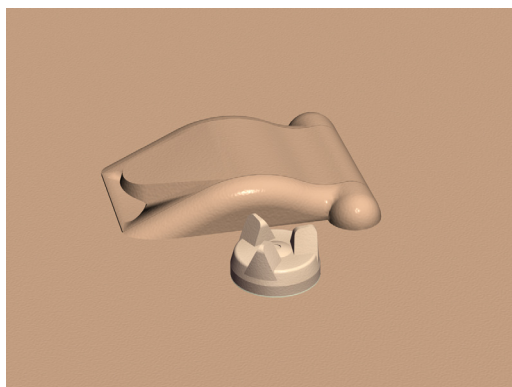
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3a.
Position the appropriate knob-mounting device that fits the specific knob style on top of the knob.

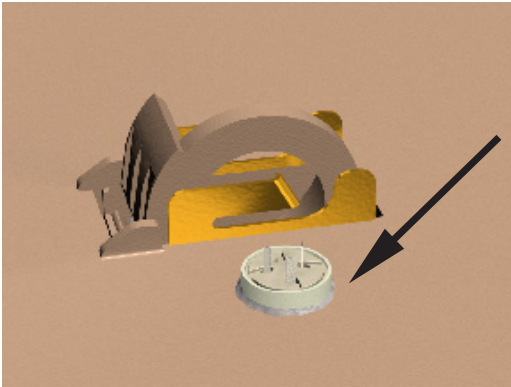


3b.
Carefully press the top of the knob.



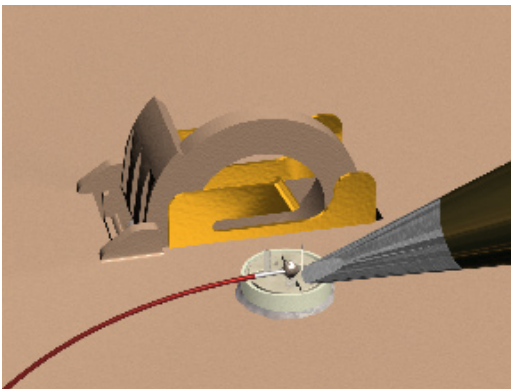
3c.
Check again to be sure that the VC is completely seated in the faceplate

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4. Gluing

In order to obtain sufficient attachment between the volume control and the faceplate, it is recommended to apply a minimum of leveled glue into a circle around the volume control as close to the body as possible.



5. Soldering

Recommended soldering temperature and time:

Hand soldering: 300°C [572°F] for 3 s or 350°C [662°F] for 1 s.

Reflow soldering: 200°C [390°F] for max. 20 s or 230°C [445°F] for max 5 s.

5a.

Avoid pressure on the leads by the soldering iron, and keep a minimum distance from the housing of 0.5 mm (0.02").

5b.

Avoid mechanical stress to the leads during processing and 3-5 s after soldering, as a potential heat build-up might degrade the component specifications.

5c.

If additional flux is needed, use the smallest amount possible. Some types of flux have high alcohol content, and excessive exposure may damage the plastic parts.

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6. Cleaning

Flux residues may need to be removed by solvents, or cleaning agents. Please refer to the recommended cleaning solvents:

- Aqua wash (Alpha 2110)
- Benzine

The above types of cleaning agents have been tested and proven not to degrade the plastic. We do, however, always recommend handling a cleaning process in a ventilated environment to minimize the risk of degrading the components.

Use of other cleaning agents may harm the plastic, due to fumes of the cleaning agent, depending on type and how aggressive the solvent is.

We strongly recommend **not** to use an ultrasonic cleaner with any of these components.

7. Gluing

Should it be necessary for any reason to use glue with or nearby the DCU 254 in your application, we recommend using:

- Cyanoacrylate (non blooming types), i.e. Loctite 401, 408, and 460

The above types of glue have been tested and proven not to degrade the plastic. We do however, always recommend to process and cure any adhesive in a ventilated environment to minimize the risk of degrading the component.

Use of other glue types may harm the plastic due to fumes of the glue, depending on type and how aggressive the glue is.

8. General Operating Conditions

To minimize any risk of degrading the component quality, avoid any sideways stress during normal rotation and hearing instrument processing.

9. Additional Supporting Material - Mounting Device

We recommend the use of a mounting device developed for various types of the knob styles, for better and sufficient handling.

Any questions in relation to this Application Note can be addressed to Customer Quality Service (CQS), in Roskilde, Denmark - e-mail: sonion.cqs@sonion.com