

GEWA Violin/Viola Case Subway Handle Retrofit Installation, Oblong

Product Line: Air, Idea

Instrument: Violin, Viola

Shape: Oblong

Size: All

Difficulty: Medium. May require special tools, volatile solvent, and special skills.

Required Tools and Material

- Drill
- 4mm or 5/32 drill bit
- 1/32 drill bit
- Screwdriver
- Rivet gun
- Masking tape
- Ruler
- Grease pen or any removable pen on thermoplastic
- Permanent marker
- Acetone
- Heat gun
- Fabric glue

Assumptions and Terminologies

- Left side – hinge side
- Right side – main handle side

Handle Installation

1. Set the case's hinge side on a flat hard surface.
2. Set the ruler against the short sides
3. Measure and mark the point $5 \frac{3}{8}$ " from the bottom of the ruler with grease pen. This is the mid-point between the 2 hardware
4. Repeat Step 3 for the other short side.
5. Measure and mark the *line* at $3 \frac{3}{16}$ " from the center to the main handle side. This is where the outer edge of the right-side hardware will be. Repeat the process for the left side.
6. Mark $\frac{3}{8}$ " from the bottom shell's rubber valance on both lines made in step (iv).
7. Apply masking tape to connect the hardware outer edge lines made in the step 4 at the $\frac{3}{8}$ " marks made in the step 5. Do not hide the outer edge lines. If hidden, draw a new line on the masking tape.

8. Place a hardware on the right side so that the hardware's top and the right edges will align the edges of the masking tape.
9. While holding the hardware in place, mark the center points of the rivet holes.
10. Repeat steps 7 and 8 for the left side
11. Using acetone, peel back the interior lining where the rivet holes will be made.
12. Drill through the shell at the rivet hole marks made in step 8. Do not apply strong pressure and do not let the drill bit catch the interior fabric.
13. Place a D-ring in the slot on the D-ring plate, then align the rivet holes with the holes made in step 10
14. Insert a rivet from outside, black end first. Once through, put a washer on the black end.
15. Fasten the rivet according to the rivet gun instruction. Repeat for the other plate.
16. If needed, apply acetone on the interior lining to soften the glue
17. Reattach the lining to cover the rivets while applying light pressure with hand and hot air from the heat gun set at 240F
18. Install the leather handle.

Rubber bumper installation

1. Mark the center mark of the rubber bumper (1 3/8" from the edge)
2. Place the rubber bumper on the case surface and align the bumper center mark with the case center mark made in step 3 under Handle Installation.
3. Mark the screw hole
4. Drill pilot holes using 1/32 drill bit
5. Secure the rubber bumper with supplied screws