

Perfection

planetary-gear
tuning pegs
for violin, viola & cello

Installation Guide

CAUTION

Installation and removal of the Perfection Pegs should be carried out by an experienced luthier. Before installation, please take time to study these instructions and understand them completely.

Incorrect installation may -

- Require rebush and repair of the peg hole
- Cause the pegs to malfunction
- Void the warranty on the pegs

If you have any questions please contact Twofold Media.

Peg Action

Perfection pegs use a variable-friction mechanism to hold their internal gears in position against the tension of the tuned string. In normal use, the degree of friction applied is controlled by the player exerting a light inward pressure on the peg head as a string is tuned. Friction is increased by pressing the peg head inwards as it is rotated, and can be released to let the peg turn more freely by pulling the peg head gently outwards during rotation.*

* Do Not Force Your Pegs

The application of excessive force pressing in or pulling out on the peg head while tuning can dislodge the peg from the peg box.

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IMPORTANT: Before you install

There are two types of Perfection peg in each set: pegs for the treble-side of the instrument and pegs for the bass-side. The two types are NOT interchangeable. If a peg is installed on the wrong side of an instrument it may not function properly.

The pegs have a fine thread on the shank. Treble-side pegs have a left-hand thread, while the bass-side pegs have a right-hand thread.

The pegs are installed on the instrument by screwing them into the peg holes. The direction of rotation when screwing in the peg is the same direction used as when loosening the strings.

To determine which way the threads are cut, carefully examine the pegs and run your thumbnail along the threads to determine the correct orientation.

Peg Sizes & Part Numbers

Perfection Pegs are made for violin, viola & cello, 1/2 to 4/4. The pegs come in several sizes to suit different instruments and a variety of peg hole sizes. All pegs have a standard taper.

Violin & Viola 4/4:

P1VN44	4 pegs - shank 7.8mm, head 23mm
P1VN448.5	4 pegs - shank 8.5mm, head 23mm
P1VA449.0	4 pegs - shank 9.0mm, head 23mm

Violin & Viola 1/2 to 3/4:

P1VN34	4 pegs - shank 7.6mm, head 19.2mm
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Cello 4/4:

P1VC44	4 pegs - shank 12.0mm, head 36.3mm
P1VC4413	4 pegs - shank 13.0mm, head 36.3mm
P1VC4414	4 pegs - shank 14.0mm, head 36.3mm
P1VC4415	4 pegs - shank 15.0mm, head 36.3mm

Cello 1/2 to 3/4:

P1VC34	4 pegs - shank 12.0mm, head 31.2mm
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Peg Heads:

Perfection Pegs are supplied with heads made either of ABS plastic (no designation), ebony (E) or rosewood (R). Wood headed pegs have two styles, Hill (H) or Swiss (S). Designation for head type follows the part number, eg. a 13mm cello peg with an ebony Swiss head carries the part number P1VC4413ES

Tools & materials required

Perfection Pegs
Peg reamer (standard profile)
Marking pen
Saw (fine tooth)
File (fine-tooth) or belt sander
Sandpaper (P220 grade/600 grit)
Leather patch
Cotton buds
Water
Polyurethane glue, eg. Selleys Urethane Bond

Step 1 - Ream the holes

Prepare the instrument by removing the old strings and pegs. Use a standard peg reamer to lightly ream the four peg holes. Ream only enough to allow the pegs to self-thread tightly. Test the fit several times as you ream the hole.



Step 2 - Initial fit

Select the correct peg for the side of the instrument on which you are working (see "IMPORTANT: Before you install"). Screw the peg into the peg hole until no thread is visible.



Step 3 - Mark the peg length

Mark the peg where it protrudes from the peg box. Remove the peg from the peg box.



Step 4 - Cut the peg to length plus 2mm
Trim the peg to length with a saw. Cut the peg end proud of the mark by 2mm to allow for rounding of the peg end.



Step 5 - File the peg end
Round-off the peg end with a file or belt sander.



Step 6 - Sand the end
Smooth-finish the peg end with very fine sandpaper.



Step 7 - Shine the end
Shine the peg end using the leather patch.



Step 8 - Moisten the peg hole
Using a cotton-bud, barely moisten the peg hole with water.



Step 9 - Apply glue to the thread
Apply a small amount of polyurethane glue (eg. Selleys Urethane Bond) to the thread. Use only enough glue to fill the grooves of the thread. The use of polyurethane glue is recommended as it bonds to both wood and metal and is easily removed should the need arise.



Step 10 - Screw the peg into the hole
Screw the peg in until the threads are flush with the peg box.* The direction of rotation when installing the pegs is the same direction used when loosening the strings.

The fit should be close enough for the final turns to be tight. To assist in making the last few turns when screwing them into the peg box, wind a rubber band around the shank to act as a grip so that sufficient torque can be applied.

At the final stage, the glue will lubricate the thread and make the last few turns easier.

* The dimensions of peg boxes can vary widely and the threaded portion of the peg may need to be set deeper into the peg box to ensure a proper fit on the instrument.



Step 11 - Clean up & let dry
Wipe off any excess glue. Allow the glue to dry completely. Bed-in the action of each peg by giving it several turns while applying a gentle inwards pressure. Install the strings.

