

105 10-Speed Clips

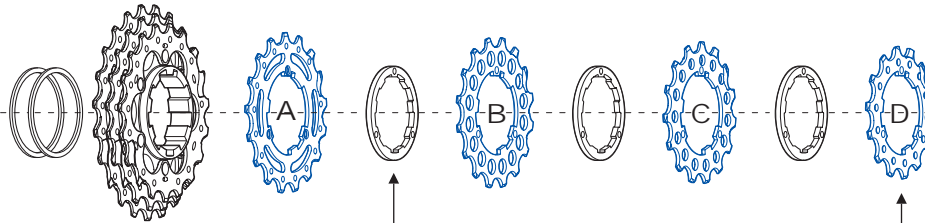
American Classic Pins - for Shimano 105 10-speed cassettes only



Pins for 11T top cog

1st

Install the American Classic spacer, the Shimano spacer, and the first 7 cogs. These are the pinned cogs and the thinner cogs with only six splines. See below.

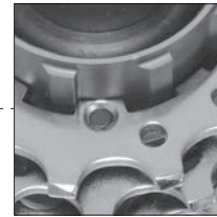


Holes in the spacers must align with holes in the cogs.

Cogs A, B, C, D, are thin and only have six splines. The pins protect your aluminum cassette body from these cogs.

2nd

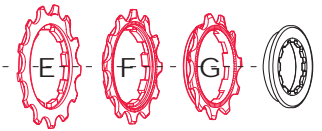
Install pins. Use picture as guide.



Pins are installed correctly if all three pins are flush with the top of cog D.

3rd

Install remaining 3 cogs. Thicker cogs with all nine splines.



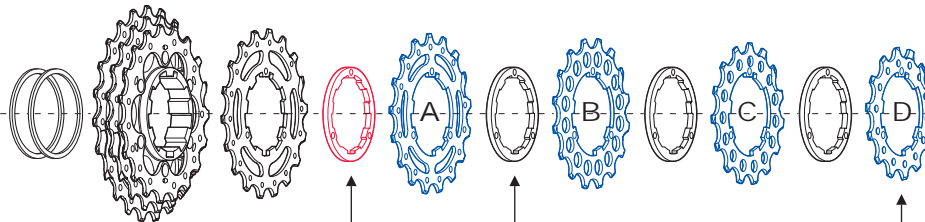
Cogs E, F, G, are thicker and have all nine splines.



Pins for 12T top cog

1st

Install the American Classic spacer, the Shimano spacer, and the first 8 cogs. These are the pinned cogs and the thinner cogs with only six splines. See below.



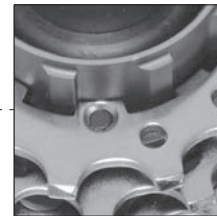
Holes in this spacer must **NOT** align with holes in the cogs.

Holes in the spacers must align with holes in the cogs.

Cogs A, B, C, D, are thin and only have six splines. The pins protect your aluminum cassette body from these cogs.

2nd

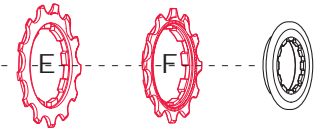
Install pins. Use picture as guide.



Pins are installed correctly if all three pins are flush with the top of cog D.

3rd

Install remaining 2 cogs. Thicker cogs with all nine splines.



Cogs E, F, are thicker and have all nine splines.

All repairs should be performed by a Professional Bicycle Mechanic.