

## HOW TO SERVICE NOVA CHUCKS

### **SAFETY WARNING**

**Safety glasses must be worn when dealing with snap rings on the chucks. Snap rings can fly off in any direction. Use caution and wear safety glasses.**

- **Note:** *Remove jaws or any other accessories attached on the chucks before disassembling the chucks. Wipe/blow off visible dust from the chucks before disassembly.*

### **Preparation:**

Before starting the disassembly, lay a disposable thick towel or cloth on top of the working area as the disassembly process can get messy. The towel will protect the chuck body during this process.

This guide outlines the disassembly, cleaning and reassembly for:

- Precision Midi
- G3
- SuperNOVA2
- Titan

## Precision Midi – Disassembly

Tools required:

1. External Circlip pliers
2. Disposable rag

STEPS	DESCRIPTION	
1.	Lay the chuck face down on the work bench. The jaw slides can be at any position.	
2.	Use the external snap ring plier to remove the retaining ring as shown in the image.  <b>⚠ WARNING:</b> Use extreme caution with circlips. Wear safety glasses for this procedure.	

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## Precision Midi – Disassembly continued

STEPS	DESCRIPTION	IMAGE
3.	<p>Once the retaining ring is removed, the scroll ring (middle part) can be lifted up from the chuck body.</p>	
4.	<p>After removing the scroll ring, the jaw slides will release.</p> <p><i>Before sliding the jaw slides out, mark with a permanent marker since each jaw slide will have a corresponding slideway to it. #1 jaw slide fit where there is a dimple.</i></p> <p>Remove the jaw slides out from the body by sliding it outwards.</p>	
5.	<p>Make sure you have all of the parts:</p> <ol style="list-style-type: none"> <li>1. Chuck Body</li> <li>2. Scroll Ring</li> <li>3. Retaining ring (EC48)</li> <li>4. Jaw Slides: 1, 2, 3, 4</li> </ol>	

## Precision Midi – Cleaning

STEPS	DESCRIPTION	IMAGE
1.	<p>Use a disposable cloth/ towel to wipe off as much of the visible dirt as possible.</p> <p><b>Note:</b> Clean all the main parts of the chuck (i.e. scroll ring, jaw slides and chuck body).</p>	
2.	<p>To remove built up grime, apply a degreaser/rust remover (e.g. WD40) on each part. Leave on for at least two hours (or as directed on product instructions).</p>	
3.	<p>Use a wired brush to remove the rust and grime.</p> <p>Make sure to run the brush in between the slits of the scroll ring and jaw slides to get to the hard to clean areas.</p>	
4.	<p>Use a clean disposable cloth or towel to wipe off grime after brushing.</p> <p>Wipe off as much of the grime as possible - until part does not feel sticky.</p>	

## Precision Midi- Reassembly

Once the parts are cleaned and free of any debris on the surface, the chuck can be reassembled. Before assembling the chuck back together, check for defects on every part. If there is any visible defect (e.g. cracks, chips, deformation, etc) please contact our customer service at [service@teknatool.com](mailto:service@teknatool.com)

STEPS	DESCRIPTION	IMAGE
1.	<p>Before you insert the jaws back into its jaw slide, add lubrication to every surface that comes in contact with other parts.</p> <p>Apply a generous amount of lubricant on the entire inner surface of the chuck body and between the scroll ring teeth.</p>	 The top image shows the inner surface of a metal chuck body with a scroll ring. The bottom image shows a hand holding a metal jaw slide, which is a semi-circular component with a central hole and a dimple.
2.	<p>Reinsert the jaw slides back into their corresponding slots. Insert <i>the #1 jaw slide in the slot with a dimple</i>. The jaw slide numbers will be increasing sequentially in the clockwise direction.</p>	 The image shows the fully reassembled chuck, which is a circular metal component with four jaw slides inserted into its slots. The jaw slides are numbered sequentially in a clockwise direction.

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# NOVA Precision Midi – Reassembly continued

STEPS	DESCRIPTION	IMAGE
3.	Flip the chuck on its face and position the jaw slides to form a square in the centre as shown.	
4.	<p>Before inserting the scroll ring, make sure the jaw slides do not move. The centre square should be there before inserting the scroll ring.</p> <p>Slide the scroll ring back into the chuck body. Once in place, rotate the scroll ring until it engages with the jaw slides.</p> <p>You should be able to feel the scroll rings engage as it will drop into place, exposing the slot where the snap ring will fit.</p>	
5.	<p>To check whether the jaw slides correctly match up at the centre, rotate the scroll ring with your hands</p> <p>If the jaw slides match up correctly at the centre, place the snap ring back on to complete the assembly process.</p>	

## Chucks Parts List

SKU	Thread Size	PARTS LIST		
<b>SKU 48111</b> Precision Midi Direct Thread	1" x 8 TPI	1.	48100	Chuck Body
		2.	48116	Scroll Ring
		3.	23051 23052 23053 23054	Jaw Slides
		4.	EC48	36mm External Circlip
<b>SKU 48232</b> G3 Direct Thread	1" x 8 TPI	1.	48206 (Insert) 48207 (Direct)	Chuck Body
		2.	23082	Scroll Ring
<b>SKU 48202</b> G3 Insert Type	M38 x 3.5	3.	23051 23052 23053 23054	Jaw Slides
		4.	EC48	External Circlip
<b>SKU 23062</b> SuperNOVA2 Direct Thread	1 ¼" x 8tpi	1.	23049 (Insert) 23061 (M33)	Chuck Body
		2.	23048	Back Cover
		3.	23082	Scroll Ring
<b>SKU 23055</b> SuperNOVA2 Insert Type	M38 X3.5	4.	23051 23052 23053 23054	Jaw Slide #1~#4
		5.	23081	Pinion Gear
		6.	EC48	External Circlip
<b>SKU 13060 –</b> Titan III Direct Thread	1 ¼" x 8tpi	1.	13038 (Normal) 13039 (Europe)	Chuck Body
		2.	13003	Back Cover
		3.	13035	Scroll Ring
<b>SKU 13061 –</b> Titan III Europe Version Direct Thread	M33 x 3.5	4.	1339011 1339012 1339013 1339014	Jaw Slide #1~#4
		5.	13036	Pinion Gear
		6.	EC48	External Circlip
		7.	13004	Fastening Screw
		8.	LSM4N	Position Screw