

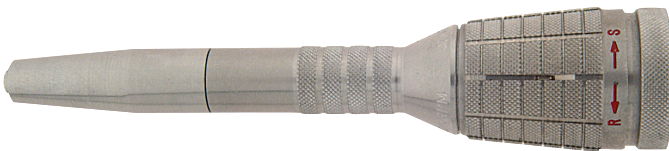
# Instruction Manual

*for*

**POWER  HAND<sup>®</sup> 2X**

**Slender Head Assembly  
Model: Z-SLX**

**#510-2220**



**Gesswein<sup>®</sup>**  
The Right Tools

# Introduction

The Gesswein Power Hand 2X Z-SLX Head Assembly is engineered and manufactured to a high degree of precision and will give you many years of trouble-free service. Backed by a limited warranty that covers wear parts for 90 days and overall balance of parts for six months.

This Head Assembly is designed to be used on Power Hand 2X motors in conjunction with Power Hand 2X Single, Standard, Dual, Jewelers' Micromotor, Power Carver II and Bright-Cutting Controllers. These controllers convert the Alternating Current (AC) power supply to a variable Direct Current (DC) by means of an I.C. "transistorized" automatically controlled circuit.

The Gesswein Power Hand 2X handpiece series consists of nine models and eleven head assemblies with maximum operating speeds ranging from 8,000 to 55,000rpm and 0 to 117 strokes per second. All models are identified by their names, which are engraved on the motor housings.



## 1. Accessories

### Included Accessories

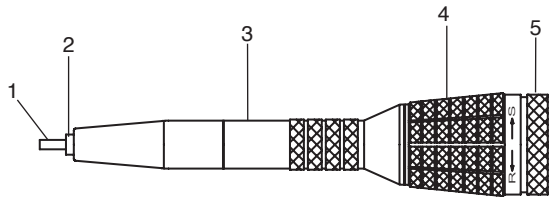
- A. One 1/8" (3.2mm) Collet (reorder #501-0105)
- B. One Collet Wrench (reorder #510-0180)

### Optional Accessories

- A. Handpiece Extension Cord (#510-1120): adds 6 feet, or almost 2 meters, to the 1.7-meter rotary handpiece cord
- B. Handpiece Cradle Rest (#510-1130): provides a safe holding place for the rotary handpiece when not in use
- C. Variable-Speed Foot Rheostat (#510-3100)
- D. On/Off Foot Switch (#510-3105)
- E. 3mm Collet (#501-0106)
- F. Reducing Collets: 1/8" to 3/32" (#816-1501), 1/8" to 1/16" (#816-1502), 3/32" to 1/16" (#816-1503), 3mm to 3/32" (#816-1504), 3mm to 1/16" (#816-1505)
- G. Chuck Joint Wrench (#510-0179)

## 2. Parts Nomenclature

- 1. Test Rod
- 2. Collet
- 3. Head Cover
- 4. Collet Release Ring
- 5. Motor Connecting Ring



**Fig. 1**

### 3. General Description of Use

#### Tool Changing

The Gesswein Power Hand 2X Rotary Handpiece uses a quick-tool-release mechanism that allows for rapid tool changes. To operate, turn the Collet Release Ring toward the arrow pointing to the “R” or release position (see fig. 2). When in full “R” position, the Collet Release Ring will make a click sound; the collet is then fully open and ready to accept a tool.

To secure the tool, rotate the Collet Release Ring toward the “S” or secure position. Again, a click sound will be heard, indicating the collet is fully closed and the tool is secure.

When changing tools, be sure that the handpiece motor is not running. If you attempt a tool change under this condition, the motor will be stalled and damage will occur.

#### Collet Removal

The Gesswein Power Hand 2X Rotary Handpiece can be fitted with three different size collets. Standard sizes are  $\frac{3}{32}$ " (2.35mm) and  $\frac{1}{8}$ " (3.2mm). Bright Cutting Package supplied with a 3.0mm collet.

To change collets, rotate the Collet Release Ring to the full “R” position and remove the tool in the collet. Hold the collet between thumb and forefinger and turn in a counterclockwise direction until the collet is removed. Insert the new collet and reverse the procedure. It is best to tighten a replaced collet by hand with the collet wrench (#510-0180), securing until just tight.

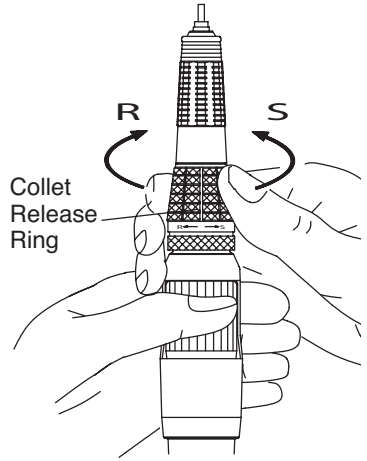


Fig. 2

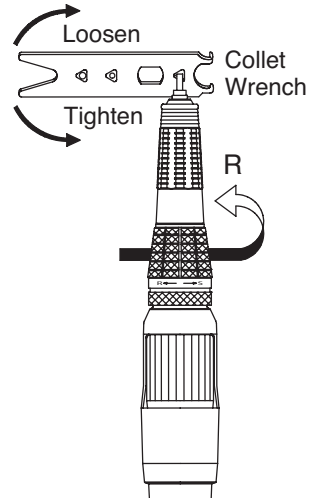
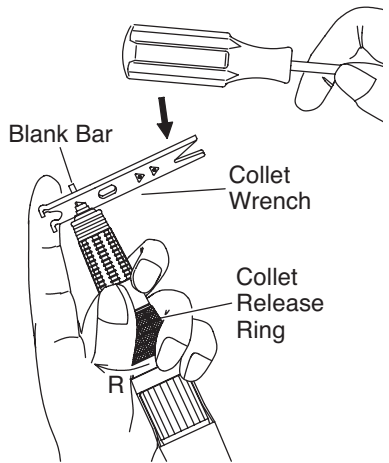


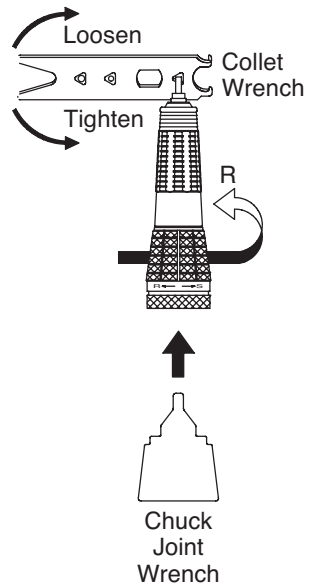
Fig. 3

If the collet cannot be loosened by hand using the Collet Wrench, additional torque may be required. To use the Collet Wrench, place the triangular cutout in the wrench over the collet (see fig. 3), and turn counterclockwise to loosen and clockwise to tighten the collet. If more torque is required, hold the handpiece with the Collet Wrench secure on the collet, and tap the wrench with a solid tool (see fig. 3a) in a counterclockwise direction. This procedure will loosen the collet, which can then be removed by hand.



**Fig. 3a**

If the handpiece collet is so tight that the above procedure will not loosen it, then remove the Head Assembly from the Motor Assembly. This can be done by grasping the Motor Connecting Ring (see fig. 1) and pulling upward. Insert the Chuck Joint Wrench (see Fig. 3b) into the Nylon Coupler (#510-0151), hold the Head Assembly and Chuck Joint Wrench securely in one hand, and with the Collet Wrench in place on the collet, loosen in a counterclockwise direction (for parts drawing, refer to page 7.)



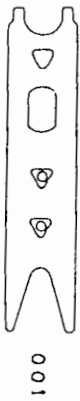
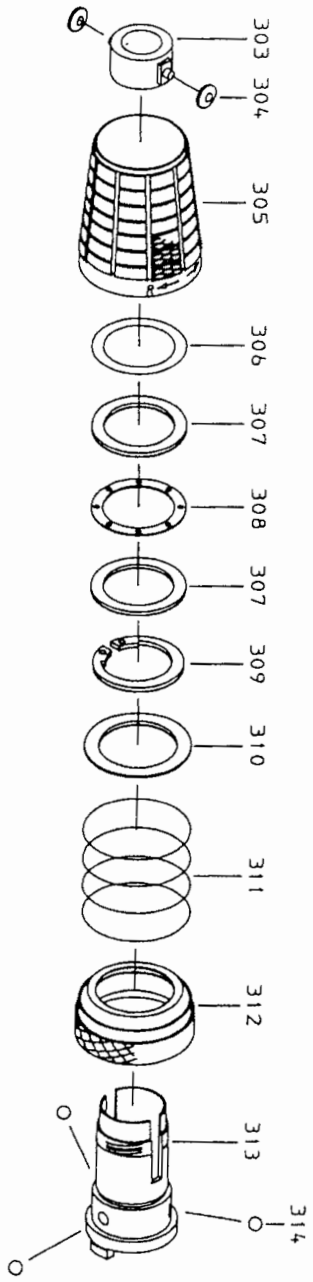
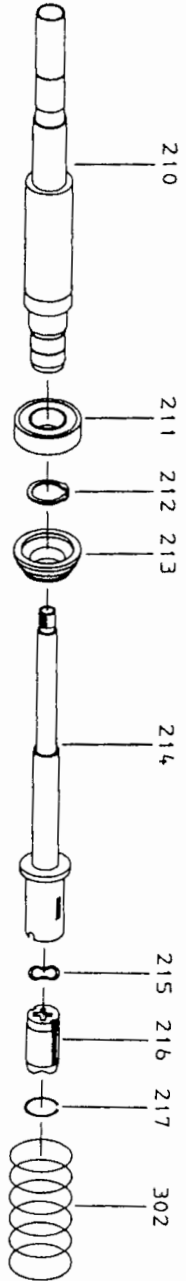
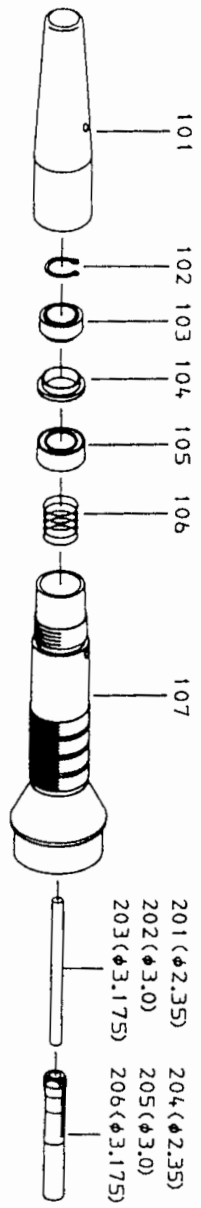
**Fig. 3b**

After a collet is replaced, be sure that the Collet Release Ring is rotated to its full “S” position and that the collet rotates freely when turned by hand. If the collet does not rotate freely, it is not fully seated in the Head Assembly, and you must repeat the removal-replacement procedure.

## Z-SLX Parts List

When ordering spare parts, always specify part# (or item# if applicable) and description.

<b>Part#</b>	<b>Item#</b>	<b>Description</b>
Z-SLX-101	<b>8960307</b>	Front Top Cover
Z-SLX-102	<b>8960308</b>	C-Type Clip Ring
Z-SLX-103	<b>8960309</b>	Dust Seal E
Z-SLX-104	<b>8960310</b>	Dust Seal C
Z-SLX-105	<b>5103086</b>	Ball Bearing
Z-SLX-106	<b>8960311</b>	Coil Spring
Z-SLX-107	<b>8960312</b>	Rear Top Cover
Z-SLX-204	<b>5010100</b>	Collet Chuck, 3/32" (2.35mm)
Z-SLX-205	<b>5010106</b>	Collet Chuck, 3.0mm
Z-SLX-206	<b>5010105</b>	Collet Chuck, 1/8" (3.17mm)
Z-SLX-210	<b>8960313</b>	Chuck Chase
Z-SLX-211	<b>5103082</b>	Ball Bearing
Z-SLX-212	<b>8960314</b>	C-Type Clip Ring
Z-SLX-213	<b>8960315</b>	Dust Seal D
Z-SLX-214	<b>8960316</b>	Joint Shaft
Z-SLX-215	<b>8960067</b>	Coil Spring
Z-SLX-216	<b>5100151</b>	Nylon Coupler (Joint)
Z-SLX-217	<b>8960068</b>	C-Type Clip Ring
Z-SLX-302	<b>8960070</b>	Coil Spring
Z-SLX-303	<b>8960071</b>	Roller Ring
Z-SLX-304	<b>8960072</b>	Roller
Z-SLX-305	<b>8960317</b>	Set Ring
Z-SLX-306	<b>8960074</b>	Teflon Spacer
Z-SLX-307	<b>8960075</b>	Thrust Ring
Z-SLX-308	<b>8960076</b>	Retainer
Z-SLX-309	<b>8960077</b>	C-Type Clip Ring
Z-SLX-310	<b>8960078</b>	Metal Washer
Z-SLX-311	<b>8960079</b>	Coil Spring
Z-SLX-312	<b>8960080</b>	Lock Ring
Z-SLX-313	<b>8960318</b>	Coupler
Z-SLX-314	<b>8960082</b>	Stainless Steel Ball
Z-SLX-001	<b>5100180</b>	Collet Wrench





Power Hand 2X controllers and handpieces combine to create the most versatile finishing system in the industry, offering rotary, profiling and belt sanding action.

### Power Hand 2X component selection:

- Three controllers
- Six straight (four standard, two slimline) and two angle rotaries
- Two reciprocating profilers
- One side-to-side profiler
- One belt sander
- One 4:1 reduction gear
- Separate motors and handpiece heads



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