



Stuck slides on brass instruments are the result of infrequent cleaning and lubrication and sometimes, improper lubricants.

Our stuck slide kit will free up almost all stuck slides. Occasionally, you may find a slide that even our kit cannot free. When this is the case, it may be necessary to unsolder and disassemble the slide to pull the tubes, and may even require rebuilding the slide with new tubes.

#### Penetrating Oil

Though you may be able to pull many slides without the help of penetrating oil, I recommend that you take advantage of its properties.

It is helpful to warm up the area of tubing that is stuck together. This can

be done with a hot air gun (a blow dryer can work), or torch (carefully). Concentrate the heat at the area of the tube that you want to draw the oil to. Put a couple drops of the oil where the inner and outer tubes meet. If you can, also provide a couple drops from the inside (through a valve port for example).

The heat will draw the oil in, helping to loosen deposits and supplying some lubrication to facilitate when pulling free. You may need to repeat this if a slide does not pull easily with the tools. Wipe the excess oil off of the instrument. It can be helpful



and sometimes necessary to let the instrument sit for a time, allowing the penetrating oil time to work in.

### **Using The Crook Pin**

The crook pin is designed to remove very tightly bent slide crooks such as the valve slides on trumpets (larger crooks would be damaged by this tool).

Attaching the crook pin with the wing nut to the small end of the handle as shown in

the picture, place the pin in the crook and tap on the handle with a broad faced light weight mallet. A plastic or rawhide mallet works well here.

Tapping with the hammer supplies shock to the parts (rather than force) and it is the shock that breaks the lock between the slide tubes.

If the slide doesn't free soon after tapping, apply more heat and penetrating oil, and possibly allow more time for the oil to penetrate. Then, try again to free the slide.



### **Using The Crook Plates**

The crook plates work similarly to the crook pin but these attach to the other end of the handle, with a locating pin in one hole, and a wing nut securing the threaded stud. The plates are designed for larger sized crooks. Pick the largest size that will fit the crook. Arrange the plate so that you'll be tapping on the outside of the handle.

If you have need for other crook plates than what is supplied in the kit, please contact us.









#### **Using The Strap**

The strap is used where either the other tools don't fit the crook well, or they can't be held conveniently with the handle because of the configuration of the instrument.

Wind the strap through the crook and then through itself as shown. This simple way of holding the slide will keep it from falling to the floor when it pops loose. Next, insert the other end through the cutout in the handle. Wrap it over the small tang of the handle. Tap on the handle as when using the crook plates.

Watch carefully to see if one tube breaks loose before the other. It is important to not continue pulling if the crook is becoming distorted be-cause one end is moving too

far beyond the other.







## Reassembly

Before reassembling the instrument, clean the slide (both inner and outer). There are a number of ways to do this, but at minimum brush all of the tubing with a good stiff nylon slide tube brush (available through J.L. Smith & Co).Lubricate the inner slide tube with the Valentino Slide Grease, and then work the

slide in, ensuring that the entire slide has an even coat of grease. Wipe up excess grease.

# Enjoy,







#### 100% Lifetime Guarantee!

J.L. Smith brand tools are guaranteed for life against breakage or defects. Just return any defective tool to us and we'll repair or replace it free of charge.