



# How to Repair a JetEdge High-Cycle On/Off Valve Using Kit #13877

These instructions will demonstrate how to replace components of a JetEdge Style High-Cycle On/Off Valve with kit #13877

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## INTRODUCTION

Hypertherm is in no way affiliated with the above mentioned manufacturer.

### TOOLS:

- [13/16" wrench](#) (1)
- [7/8" wrench](#) (1)
- [1" wrench](#) (1)

### PARTS:

- [Repair Kit #13877](#) (1)
- [Needle Bearing #11042 \(Included in Kit\)](#) (1)
- [Seat #11289 \(Included in Kit\)](#) (1)
- [High-Pressure Valve Seal #11043 \(included in kit\)](#) (1)
- [Actuator #12828](#) (1)
- [Adapter #13841](#) (1)
- [Valve Body #11055](#) (1)
- [Blue Goop #11111](#) (1)
- [Isopropyl Alcohol](#) (1)

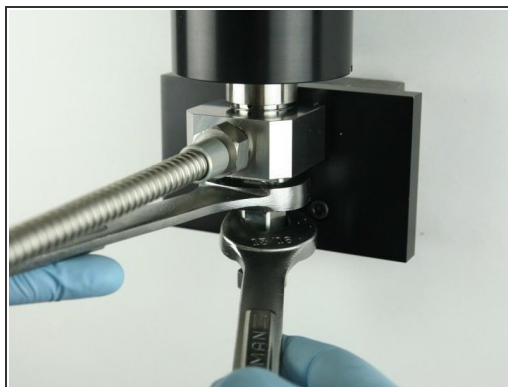
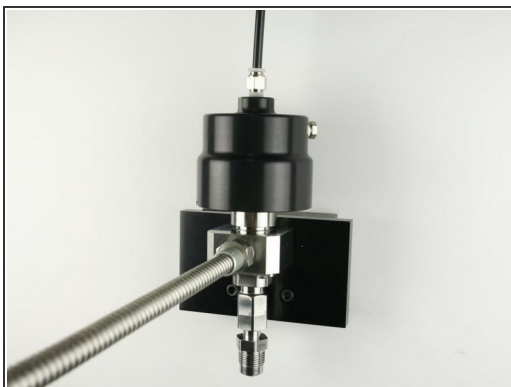
## Step 1 — How to Repair a JetEdge High-Cycle On/Off Valve Using Kit #13877



**⚠** Always make sure all high-pressure water has been removed from the valve by following the machine manufacturers' safety instructions. Failure to do so can cause severe injury or death.

- Turn OFF all water pressure to the on/off valve.
- Turn the on/off valve ON to raise the needle from the [seat](#).

## Step 2



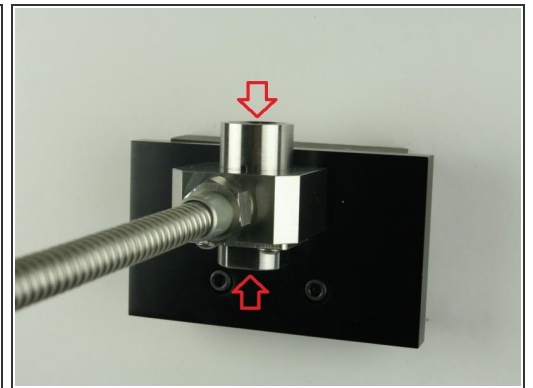
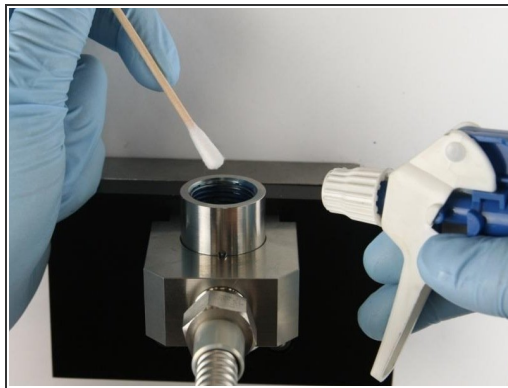
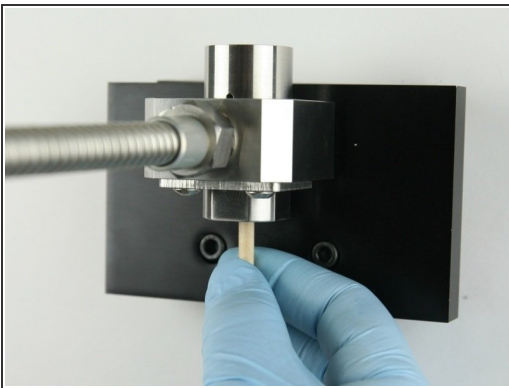
- The components can be replaced with the [valve body](#) in the mounting collar.
- Loosen the [adapter](#) from the valve body using a 1" and 13/16" wrench.
- Unthread the adapter from the valve body.

### Step 3



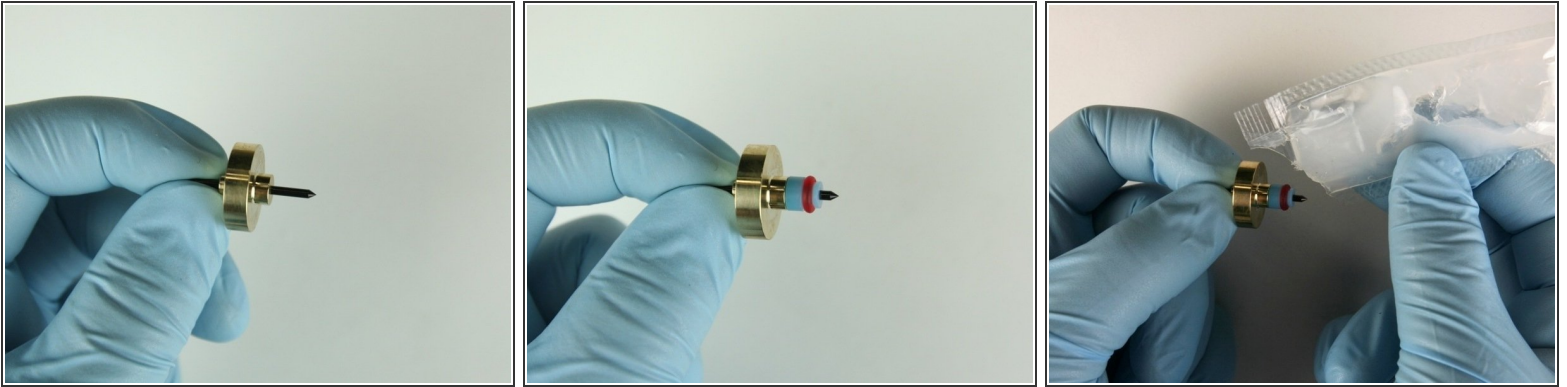
- For similar disassembly see [Step 3 kit #13683](#) (parts/tools may vary)

### Step 4



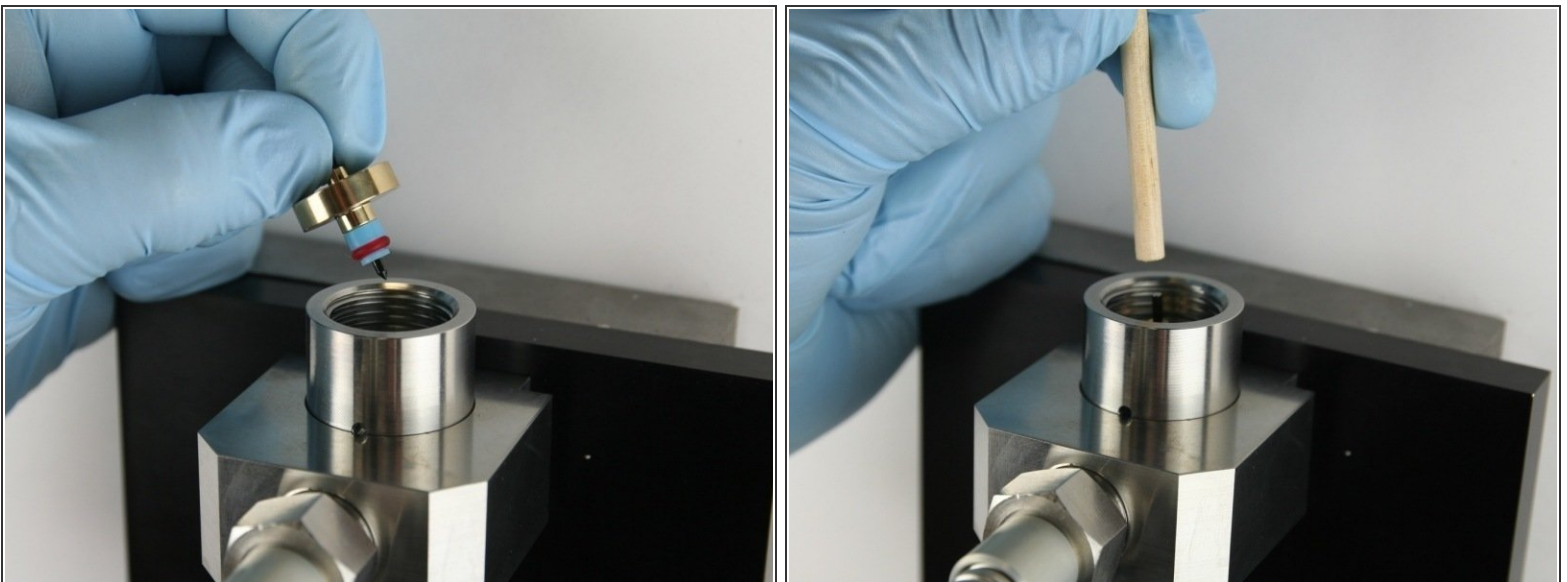
- Remove all the valve components using the included dowel.
- Thoroughly clean the interior/exterior of the valve body with isopropyl alcohol before replacing the components.
- ☑ Put the top and bottom of the bore for cracks/blemishes. If excessive wear or cracks are visible, replace the [valve body](#).

## Step 5



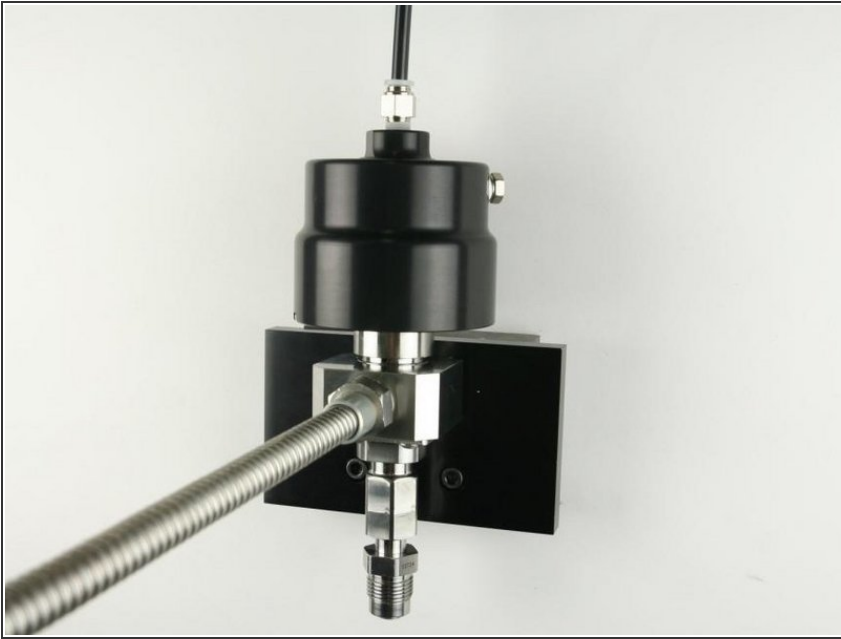
- Slide the [needle bearing](#) onto the needle point with the larger stepped side pointing towards the needle point.
- Slide the [high-pressure valve seal](#) onto the needle point.
- Apply a high-pressure lubricant to the outside diameter of the high-pressure valve seal.

## Step 6



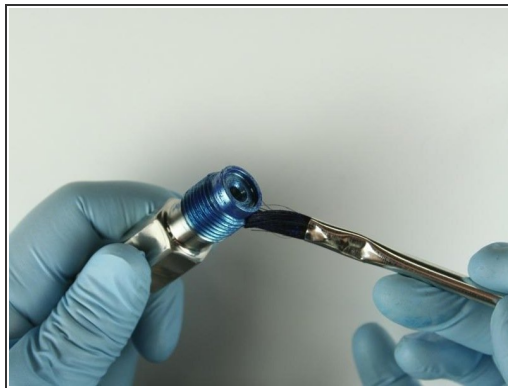
- Put the needle point at the top of the valve body.
- Use the dowel to push the needle into the valve body until the needle bearing bottoms out.
- Apply [Blue Goop](#) to the actuator threads.

## Step 7



- For similar assembly see [Step 7 kit #13683](#) (parts/tools may vary)

## Step 8



- Clean the adapter of all Blue Goop with isopropyl alcohol or a similar cleaning agent.
- Re-apply Blue Goop to the top threads and to the top of the adapter.
- Put the seat in the adapter with the flat the side toward the adapter.

## Step 9



- Apply Blue Goop to the top of the seat.
- Turn the air to the actuator ON.
- Thread the adapter into the valve body.

## Step 10



- Tighten the adapter into the valve body using a 1" and 13/16" wrench.
- Turn the air to the actuator OFF.
- Apply water pressure to the valve assembly to verify there are no leaks.

**Step 11**

- Quickly cycle the valve on and off a few times to purge the system of all contaminants before installing the cutting head.
- Reinstall the cutting head and continue the cutting process.