

Hypertherm[®]

**HyDefinition[®]
PAC182, PAC183 & PAC185
Torches**

**Water Tube Field
Replacement**

**Field Service Bulletin
IM-255
(P/N 802550)**

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WATER TUBE FIELD REPLACEMENT

PURPOSE

This field bulletin provides the necessary information to remove the damaged water tube from a HyDefinition PAC182, PAC183 or PAC185 torch and replace it with a new water tube (120411).

TOOLS AND MATERIALS REQUIRED



Pliers
Cotton swabs

UPGRADE KIT (128113)

<u>Part No.</u>	<u>Description</u>	<u>Quantity</u>
120411	Tube, water electrode cooling	2
027055	Lubricant, silicone	1
027503	Nut driver, 4.5 mm	1
802550	Field Bulletin, HyDefinition PAC182/PAC183/PAC185 Water Tube Field Replacement	1

UPGRADE PROCEDURE

To remove and replace the water tube on a PAC182, PAC183 or PAC185 torch, proceed as follows:

**WARNING**

Turn off all power to the HyDefinition system before working on the torch. Always press the power unit OFF (O) pushbutton switch and set the line disconnect switch to OFF. Lock-out and tag-out switch.

Remove Damaged Water Tube

1. If an old syle water tube is being removed, grip the water tube with the pliers (Fig. 1). (It is okay to crush the water tube to get a good grip.)

If a new syle water tube is being removed, use the nut driver (Fig. 3).

2. Carefully unscrew the water tube in a counterclockwise (ccw) direction.

Caution: While cleaning the inside of the torch in step 3. below, be very careful not to disloge the gold band from from the groove. If this happens internal arcing damage will occur.

WATER TUBE FIELD REPLACEMENT

3. After the water tube has been removed, clean the inside of the torch using low pressure compressed air or water. Carefully clean out the seat area of the water tube of any residue using a cotton swab. Be careful not to dislodge the gold band from the groove. If the gold ring gets dislodged, reinstall it by referring to Fig. 2.
4. Apply a light coat of silicone to the O-ring located at the base of the new water tube.
5. Screw the new water tube into the torch clockwise (cw) and tighten with the nut driver. Torque to 12-15 inch pounds. **Do not over tighten.**

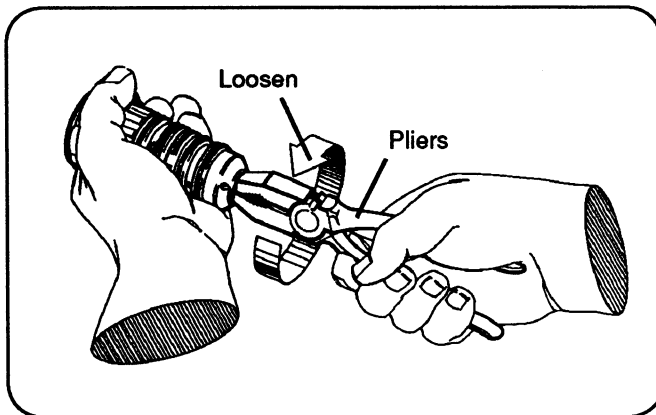


Figure 1 Old Style Water Tube Removal

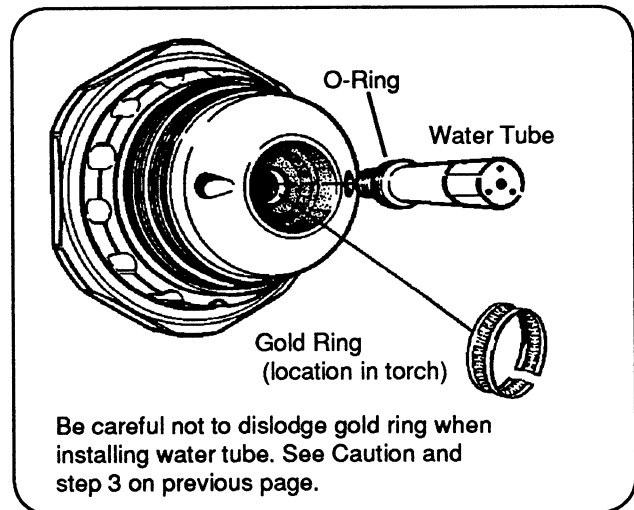


Figure 2 Install New Style Water Tube

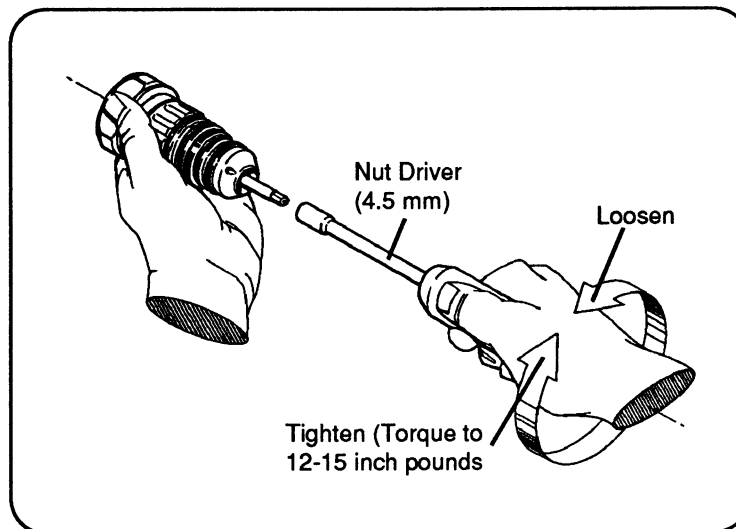


Figure 3 Loosening and Tightening New Style Water Tube