

Hypertherm[®]

**HyDefinition[®]
PAC186, PAC187 & PAC188
Torches**

**Water Tube Field
Replacement**

**Field Service Bulletin
IM-270
(P/N 802700)**

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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 PAC186, PAC187 or PAC188 torch and replace it with a new water tube (120377).

TOOLS AND MATERIALS REQUIRED



Cotton swabs

UPGRADE KIT (128107)

<u>Part No.</u>	<u>Description</u>	<u>Quantity</u>
120377	Tube, water electrode cooling	2
027055	Lubricant, silicone	1
027503	Nut driver 4.5 mm	1
802700	Field Bulletin, HyDefinition PAC186/PAC187/PAC188 Water Tube Field Replacement	1

UPGRADE PROCEDURE

To remove and replace the water tube, 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. Use the nut driver to remove the water tube from the torch (Fig. 1).
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 dislodge the gold band from from the groove. If this happens internal arcing damage will occur.

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.

WATER TUBE FIELD REPLACEMENT

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.**

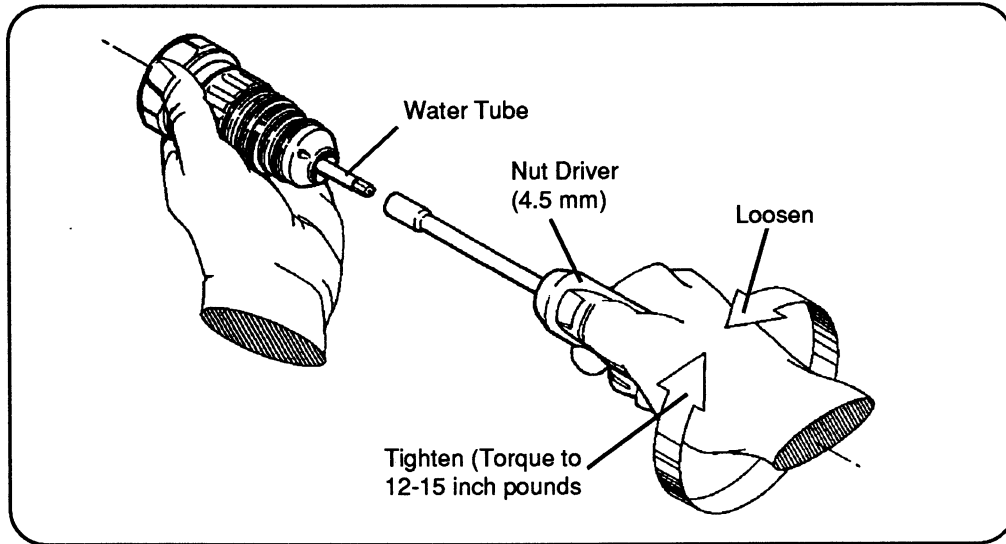


Figure 1 Loosening and Tightening Water Tube

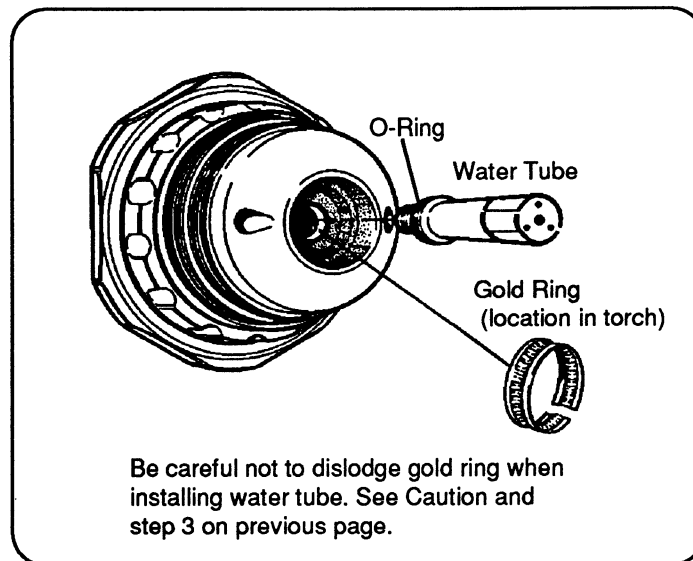


Figure 2 Install New Water Tube