

D-Torch* user guide

PE AVIO 200

30-808-3800

BEFORE YOU START

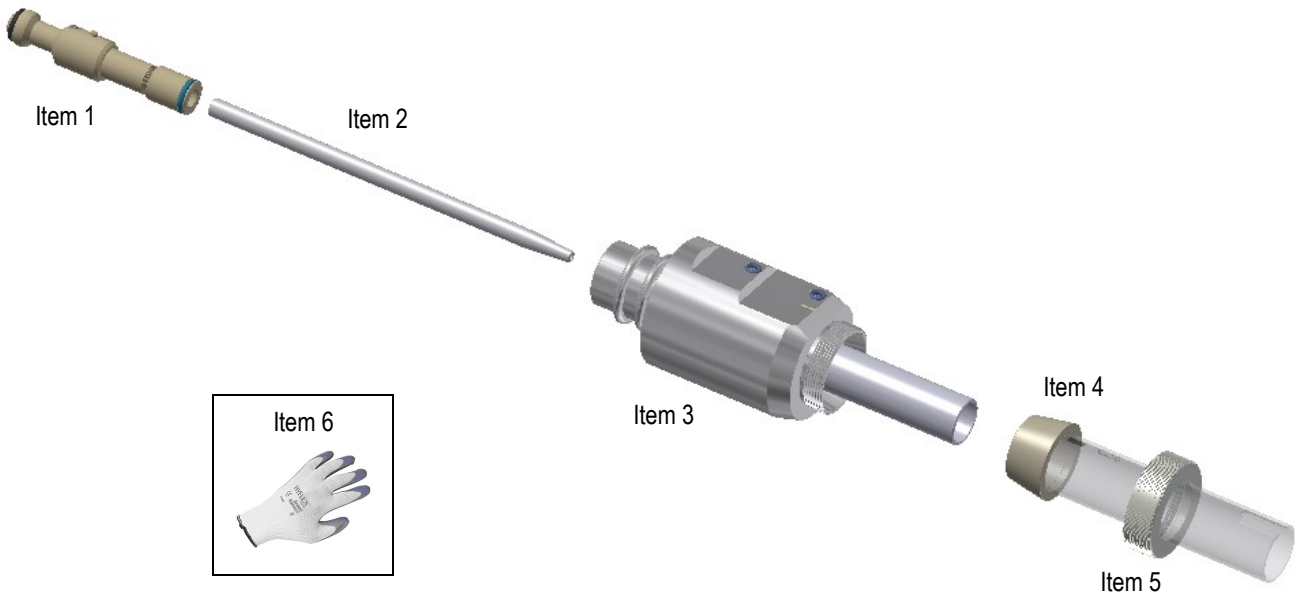
Congratulations on the purchase of your D-Torch.

As supplied, the D-Torch is fully assembled - Table 1, lists all the D-Torch components that can be ordered separately.

Item No.	Part Number	Description	Qty
1	31-808-3782	Injector adaptor	Refer notes
2	Refer note	Injector	
3	31-808-3802	D-Torch body	1
4	31-808-3792	D-Torch quartz outer tube	1
5	31-808-2818	Outer tube retainer	1
6	SAFEGLOVE-MED	Safety gloves	1 pair

Notes;

- Item 1. The D-Torch adopts the same injector, and injector adaptor as the PerkinElmer ICP Torch. For this reason, these items are not supplied with the D-Torch (shown only for reference) — But, can be purchased separately.
- Item 2. Although not supplied with the D-Torch, there are a range of different injectors available for this D-Torch. These can be purchased from your D-Torch supplier.



SCOPE

Page 2 of this document will explain;

1. Precautions for personal safety and D-Torch preservation.
2. Remove D-Torch outer tube.
3. Re-attach D-Torch outer tube.
4. Access D-Torch injector.
5. Replace injector ferrule.

* The D-Torch is covered by US Patent 8.232.500 B2

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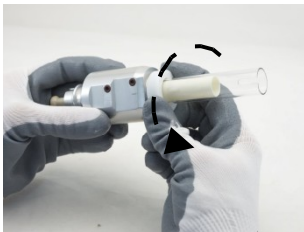
1. PRECAUTIONS FOR PERSONAL SAFETY AND D-TORCH PRESERVATION

- Always wear safety gloves (item 6) and safety glasses when handling ICP torches.
- The D-Torch is made from high grade engineered materials – *handle with extreme care*.
- Do not allow the Torch to be placed on hard surfaces or allow it to come into contact with hard objects.
- It is recommended you review and understand this procedure before handling the D-Torch assembly.

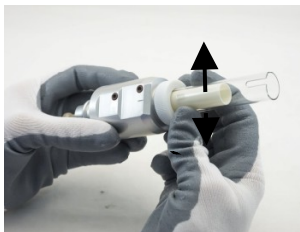
2. REMOVE D-TORCH OUTER TUBE

The D-Torch outer tube (item 4) is accurately located in place with the retainer. The outer tube can be removed at any time by completing the following steps.

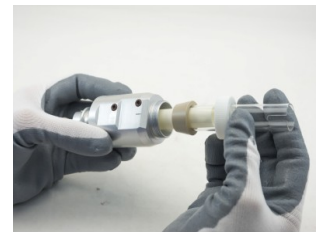
- 2.1 If fitted, remove D-Torch assembly from ICP (not shown).
- 2.2 Unscrew the outer tube retainer (item 5, at the tube base) by approximately 1/2 turn.
- 2.3 Grip outer tube (lower end, near D-Torch body) and gently wriggle it from side to side. You will hear a “click” as the outer tube releases.
- 2.4 Fully unscrew the retainer and carefully withdraw the outer tube from the torch body.



Step 2.2



Step 2.3

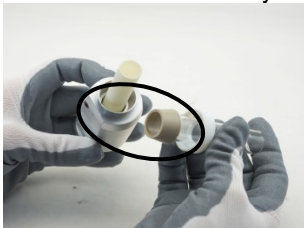


Step 2.4

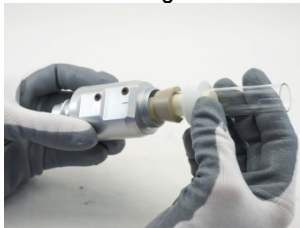
Note! Outer tube is permanently fitted with a tapered ferrule - **Do not** attempt to remove ferrule from outer tube.
Inner tube is permanently fixed to D-Torch body - **Do not** attempt to remove inner tube from D-Torch body.

3. RE-ATTACH D-TORCH OUTER TUBE

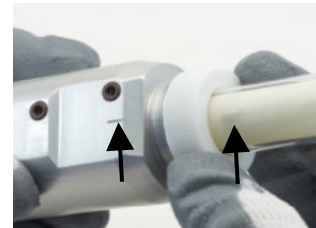
- 3.1 Check that both locating surfaces (of the outer tube and torch body) are clean and free from damage.
- 3.2 Carefully slide the outer tube over the D-Torch inner tube – the outer tube will self locate into the torch body.
Note! You must align the branded stripe of the outer tube's hole with the D-Torch body stripe.
- 3.3 Fix the outer tube in place by re-attaching the retainer to the D-Torch body to
Note! Moderate force by hand is adequate - Do Not over tighten.



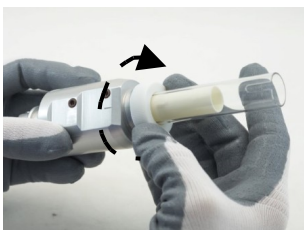
Step 3.1



Step 3.2a



Step 3.2b



Step 3.3

- 3.4 You can now return the D-Torch to your ICP as normal (not shown).

Finished! If you have any questions regarding the D-Torch assembly or this procedure, please contact your supplier.