



GLASS EXPANSION

Quality By Design

User Guide for D-Torch

HJY Radial P/N 30-808-2882



Before you Start

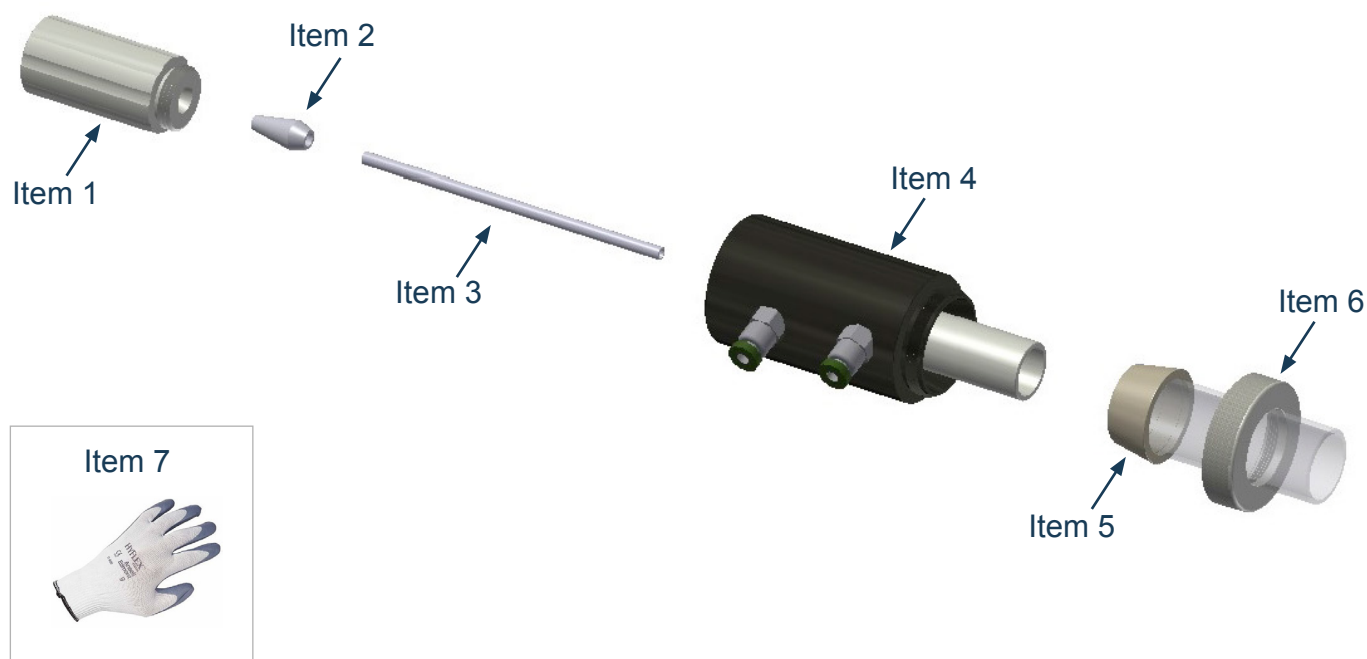
Congratulations on the purchase of your D-Torch.

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

Item no.	Part Number	Description	Qty
1	31-808-2891	HJY Radial D-Torch Injector Adaptor	1
2	31-808-2894	HJY Radial D-Torch Ferrule	1
3	Refer Note	HJY Radial D-Torch Injector	Refer note
4	31-808-2884	HJY Radial D-Torch Body	1
5	31-808-2888	HJY Radial D-Torch Quartz Outer Tube	1
6	31-808-2883	D-Torch Retaining Ring	1
7	SAFEGLOVE-MED	Safety Gloves	1 Pair

Note:

Item 3. D-Torch injector not supplied with standard D-Torch assembly (Shown for reference only). There are a range of different injectors suitable for this D-Torch – These can be purchased from your D-Torch supplier.



Disclaimer: Glass Expansion supplies products to customers with the assumption that only qualified individuals who are properly trained in the appropriate procedures will use our products. It is our customer's entire responsibility to safely store, handle and use the products ordered from Glass Expansion. We assume the requisitioner to be experienced, competent, safety conscious professionals. Glass Expansion assumes no liability for any damage or injuries -physical, emotional or mental, arising out of persons incorrectly or inappropriately using or handling our products. We also assume no liability for any damage to an instrument or product from incorrect installation, handling or use of the product by the user.

Scope

This document will explain:

1. General safety
2. Remove D-Torch outertube
3. Attach D-Torch outer tube
4. Access D-Torch Injector

Instructions

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

1. Precautions for personal safety and D-Torch preservation.

- Always wear safety gloves (item 7) and safety glasses when handling ICP torches.
- It is recommended you read and understand this procedure before starting.
- The person performing this work must be competent in making basic ICP connections.
- The ICP torches are made from high grade engineered materials – handle all torches with extreme care.
- Do not allow the Torch to be placed on hard surfaces or allow it to come into contact with hard objects.

2. Remove D-Torch outer tube

The D-Torch outer tube is accurately located in the D-Torch body. 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 Retainer ½ turn.
- 2.3 Grip outer tube then wriggle outer tube from side to side – refer figure 2.3
You will hear a “click” as the outer tube releases.
- 2.4 Fully unscrew the Retainer then carefully withdraw the outer tube from the D-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. Attach D-Torch outer tube

To replace the outer tube, complete the following steps:

- 3.1 Check that both locating surfaces (Outer tube and D-Torch body) are clean and free of damage.
- 3.2 Carefully slide the outer tube over the inner tube – The outer tube will self-locate into the D-Torch body.
- 3.3 Tighten the retainer to fix the outer tube in place.

Note: Moderate force by hand is adequate - Do not over tighten.

- 3.4 If desired, return Torch assembly to ICP and connect as normal. (Not Shown)



Step 3.1



Step 3.2



Step 3.3

4. Access D-Torch Injector

The D-Torch injector is accurately located in the D-Torch adaptor. The injector can be removed at any time by completing the following steps.

To remove injector:

- 4.1 Un-screw injector adaptor from rear of D-Torch.
- 4.2 Carefully retract adaptor from D-Torch.

Note! At this stage, the injector ferrule (Item 2) and injector (Item 3) are attached to the adaptor (Item 1)



Step 4.1



Step 4.2a



Step 4.2b

- 4.3 Remove ferrule and injector by gently wriggling the ferrule from side to side until you feel ferrule release from adaptor.

Note! Do not apply any force directly on to the injector.

- 4.4 Once the ferrule is free from the adaptor, slide the ferrule off the injector.

Note! D-Torch injector is a delicate component – The injector may break if mistreated.



Step 4.3



Step 4.4

To re-install Injector to the D-Torch

Repeat Steps 4.1 through to 4.4 in reverse order.

Finished: If you have any questions regarding the Torch assembly or this procedure, please contact Glass Expansion.

Consumables list

Part Number	Description
31-808-2884	Base and Inner Tube for D-Torch
31-808-2888	Quartz Outer Tube for D-Torch
31-808-2883	Retaining Ring for D-Torch
31-808-2891	Injector Adaptor for D-Torch
31-808-2894	Injector Ferrule for D-Torch
SAFEGLOVE-med	Safety Gloves, Medium

Alternative options:

Part Number	Description
31-808-2893	Alumina Injector 3.0mm

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