

## ***FL 6500/8500 Water Jacketed Single Cell Holder w/Stirrer Installation Instructions***

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This instruction sheet describes the installation of this accessory which is used with the FL 6500/8500 Fluorescence Spectrometer.

**NOTE:** *Read these instructions before you install this accessory.*

### ***Contacting PerkinElmer***

Supplies, replacement parts, and accessories can be ordered directly from PerkinElmer, using the part numbers.

See our website:

<http://perkinelmer.com>

PerkinElmer's catalog service offers a full selection of high-quality supplies.

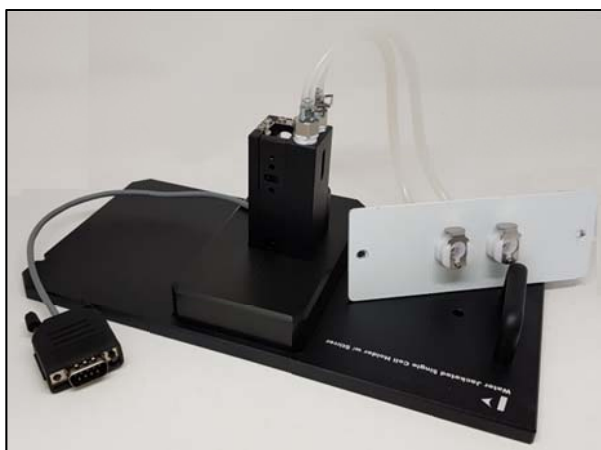
To place an order for supplies and many replacement parts, request a free catalog, or ask for information:

If you are located within the U.S., call toll free 1-800-762-4002, 8 a.m. to 8 p.m. EST. Your order will be shipped promptly, usually within 24 hours.

If you are located outside of the U.S., call your local PerkinElmer sales or service office.

### ***Features***

- Controls the temperature by circulation of liquid
- Built-in stirring mechanism
- Control stirring speed using Spectrum FL software
- Suitable size for the standard cells



**Figure 1 FL 6500/8500 Water Jacketed Single Cell Holder w/Stirrer [P/N:N4201012]**



**PerkinElmer, 710 Bridgeport Avenue,  
Shelton, CT 06484-4794, U.S.A**

**Produced in the USA.**

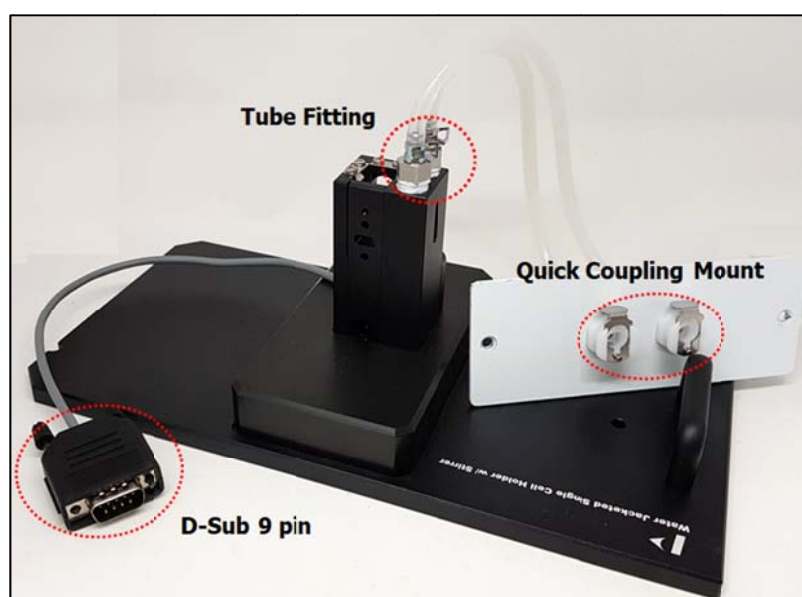
### ***Dimensions and Specifications***

Physical Characteristic	Specification
Outline Dimensions (mm)	130 x 267 x 93 (WDH)
Inner Dimensions (mm)	13 x 13.6 x 25 (WDH)
Weight (Kg)	0.88

### ***Environmental Conditions for Operation***

Specification	Comment
RT ~ 100°C	Controls the temperature using Circulator

### ***Configuration of the Water Jacketed Single Cell Holder w/Stirrer***



**Figure 2 Water Jacketed Single Cell Holder w/Stirrer configuration**



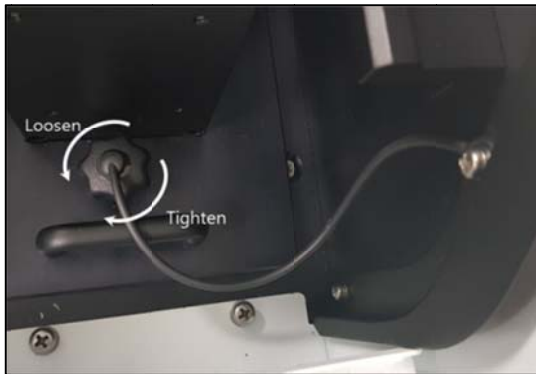
**Figure 3 Male connector of Quick Coupling (2 each)**



**Figure 4 Magnetic Bar (1 each)**

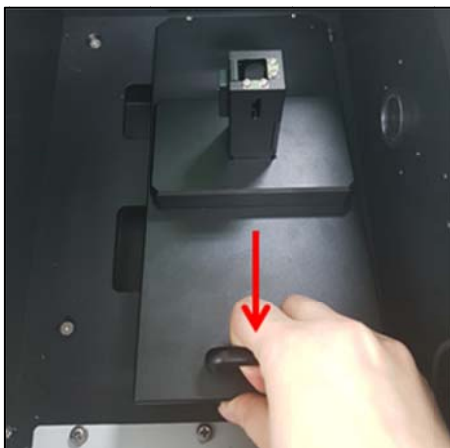
## ***Installation***

1. Prepare the FL 6500/8500 Fluorescence Spectrometer to install this accessory.
2. Connect the power cord and the communication cable.
3. Loosen the accessory fixing bolt to take apart the existing cell holder.



**Figure 5 Loosening the Accessory Fixing Bolt**

4. Pull out the cell holder by hand.



**Figure 6 Pulling out the Cell Holder**

5. Remove the existing front cover plate.



**Figure 7 Front Cover Plate**

6. After checking the pogo pin position of the sample compartment, attach the Water Jacketed Single Cell Holder w/Stirrer to the pogo pin.



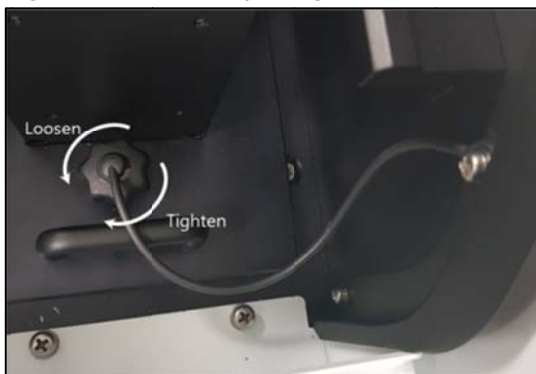
**Figure 8 Inserting the Water Jacketed Single Cell Holder w/Stirrer**

7. Fix the front cover plate attached to the Water Jacketed Single Cell Holder w/Stirrer and tighten the bolts.



**Figure 9 Fixing the Front Cover Plate**

8. Tighten the accessory fixing bolt.



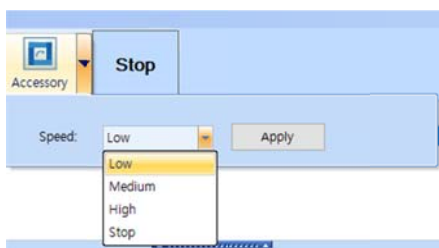
**Figure 10 Tightening the Accessory Fixing Bolt**

9. Insert the D-Sub 9 pin of Water Jacketed Single Cell w/Stirrer into the accessory port.

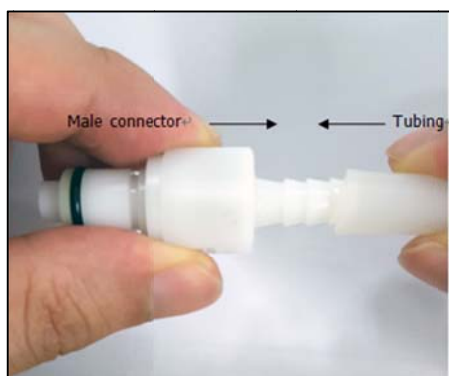


**Figure 11 D-Sub 9 Pin Position**

**NOTE:** The stirrer is controlled using the Spectrum FL software by clicking the accessory icon. Four speeds can be set: Low, Medium, High, Stop. When you click **Apply**, the stirrer begins to spin.



10. Assemble the tube with male connector of quick coupling.



**Figure 12 Assembling the Tube with the Male Connector**

**NOTE:** The tube size is recommended 3 mm-ID and 6 mm-OD silicon tube which has thermal resistance at least 100°C.

11. Connect the male connector with the tube to the quick coupling mount of the front plate.

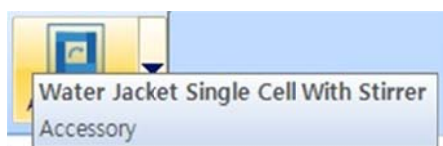


**Figure 13** Connecting the Male Connector to the Quick Coupling

12. Turn on the power switch of the instrument.

## ***Measurement***

1. Double click on the **Spectrum FL** software and select the measurement mode.
2. Check the recognition of Accessory.



3. Set up the measurement parameters.

**NOTE:** For more detail of method, refer to *Spectrum FL Software Users Guide*.

4. Click **Save** to save the method after setting up the parameters.
5. Put the sample into the sample holder.
6. Close the lid and select the **Run** icon.
7. Input the sample name and select **OK**.
8. Confirm the spectrum and results. Save or print the data.

## ***Troubleshooting***

### ***When liquid leakage occurs***

1. When liquid is leaking among the fittings.
  - Using wrench, turn the fitting counter-clockwise to detach from the Water Jacketed Single Cell Holder w/Stirrer.
  - Remove the Teflon which is wound around the fitting. Wind a length of new Teflon tape around the fitting.
  - Turn the fitting clockwise to attach to the Water Jacketed Single Cell Holder w/Stirrer.
2. When liquid is leaking between the quick coupling mount (or fitting) and the tube.
  - Replace the tube.

- The replaced tube should be able to withstand a temperature at least 10°C higher than the experimental temperature.
3. When liquid is leaking between the quick coupling mount and the Water Jacketed Single Cell Holder w/Stirrer or unknown spot.
    - Contact your PerkinElmer Service representative to replace the Water Jacketed Single Cell Holder w/Stirrer.

***When constant temperature is not maintained***

1. Check if the circulator is working normally.
  - Check if the temperature is maintained normally in the circulator.
  - Check if liquid is transferred normally to the Water Jacketed Single Cell Holder w/Stirrer through the tube.
2. Check the tube connection.
  - Check if the tube is connected tightly.

***When the tube frequently becomes detached***

1. Replace the tube.
  - You should replace the tube as it is aged.
  - The replaced tube should be able to withstand a temperature at least 10°C higher than the experimental temperature.
2. Fix with Teflon tape.
  - Firmly fix the tube by winding Teflon tape around the connection.

***When the tube frequently becomes detached***

1. Check whether the accessory is recognized correctly.

***When the magnetic bar does not work properly***

1. Check whether the accessory is recognized correctly.
2. Contact your PerkinElmer Service representative to replace the Water Jacketed Single Cell Holder w/Stirrer.

