

## S3e™ Filter Block (A or B) with Dichroic Filter Holders

Catalog #	Description
144-1005	<b>S3e Filter Block A</b> , pkg of 1, empty filter block A with 2 empty dichroic filter holders and 3 lens retaining rings
144-1006	<b>S3e Filter Block B</b> , pkg of 1, empty filter block B with 2 empty dichroic filter holders and 2 lens retaining rings

For research purposes only.

### Intended Use

The S3e Filter Block (A or B) with dichroic filter holders is used with the S3™ or S3e Cell Sorter to customize filter combinations for experimental fluorophore panels.

Compatible with commercially available filters, diverse filter sets can be installed and the filter block can be easily swapped when using different fluorophore panels. Unmounted 1 inch or 25 mm filters are recommended.

### Contents

- 1 S3e Filter Block A or B
- 2 dichroic filter holders
- 3 (block A) or 2 (block B) lens retaining rings
- 2 socket cap screws
- 2 flat HD socket cap screws

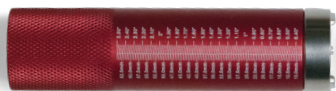
### Storage

Store at 15–30°C.

**Important:** Do not freeze.

### Tools Required

- Spanner wrench (included in S3e Accessory Kit, catalog #145-1065)



- 2 mm hex driver (included in S3e Accessory Kit, catalog #145-1065)



- Tape or label maker
- Tweezers (optional)
- Clean air (optional)

### Warning and Precautions

The filters are very delicate and require the utmost care in handling. These filters are made of glass and can cause injury, especially if they are cracked or shattered during the installation procedure.

If the filters are incorrectly installed, light transmission will not be directed to the correct channel. **Please ensure that the labeled filter side is installed facing the incoming light.**

**Note:** Please refer to the filter vendor instructions for filter orientation.

### Directions for Filter Installation

1. Set up the S3e Filter Block A (1 dot) and/or Filter Block B (2 dots) so that the painted dimples appear as shown in Figure 1.



Fig. 1. Correct orientation of S3e Filter Block A and B.

2. Create a label for each filter position on the S3e Filter Block using tape or a label maker. Carefully stick each label in its position on the filter block or on the dichroic filter holders.
3. For each dichroic filter holder, remove its screw from the bottom of the S3e Filter Block (Figure 2) using a 2 mm hex driver. Save each screw for the final reassembly step. Remove the dichroic filter holders from the filter block.



Fig. 2. Bottom of an S3e Filter Block with a holder screw highlighted.

The next several steps involve installing optics. Make sure you are in a clean area.

### S3e Filter Block

1. For each labeled position in the block, identify the correct optical filter to be inserted.
2. Use the spanner wrench to remove the retaining rings from the filter holder in which the optical filters will be installed.
3. Very carefully unwrap the filter from the packaging.

**Important: Handle the filter only by its edges. Never touch the optical surface of the filter.**

4. Find the side of the filter with the arrow indicator or etched label\* (side 1). This label may be very small (Figure 3). The orientation of the filter is critical.

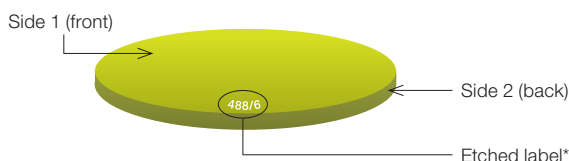


Fig. 3. Filter showing the etched label.\*

5. Install the filter by placing it with the arrow indicator or etched label\* (side 1) facing the source of emitted light (Figure 3).
6. Secure the retaining ring back in place by using the spanner wrench and rotating clockwise. (It may help to set the ring in place lying flat in the opening before using the spanner wrench.)
7. Rotate the spanner wrench until the retaining ring fits gently against the filter without overtightening.

**Note: If the tool or ring slips, the optical filter may get scratched.**

8. Repeat steps 3–7 for each filter position required for the S3e Filter Block.

### Dichroic Filter Holder

1. Lay the dichroic filter holder with the large opening facing up (Figure 4).

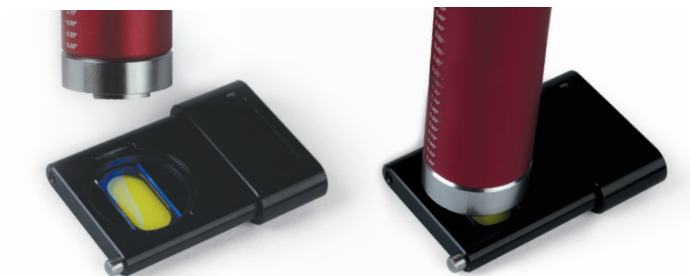


Fig. 4. Installation of a filter in a dichroic filter holder.

2. Install the filter by placing it with the arrow indicator or etched label\* (side 1) facing the source of emitted light (Figure 3).
3. Secure the retaining ring back in place by using the spanner wrench and rotating clockwise. (It may help to set the ring in place lying flat in the opening before using the spanner wrench.)
4. Rotate the spanner wrench until the retaining ring fits gently against the filter without overtightening.
5. Reassemble the two dichroic filter holders into the S3e Filter Block using the flat-headed screws removed in Directions for Filter Installation, step 3, to lock the holders in place.
6. Verify that everything is tight and does not rattle.

\* Etched label or lettering depending on filter vendor.

Visit [bio-rad.com/S3eFilterBlock](https://www.bio-rad.com/S3eFilterBlock) for more information.