

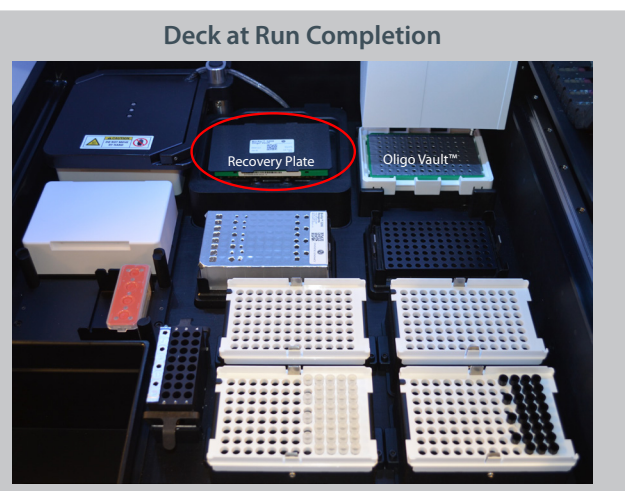
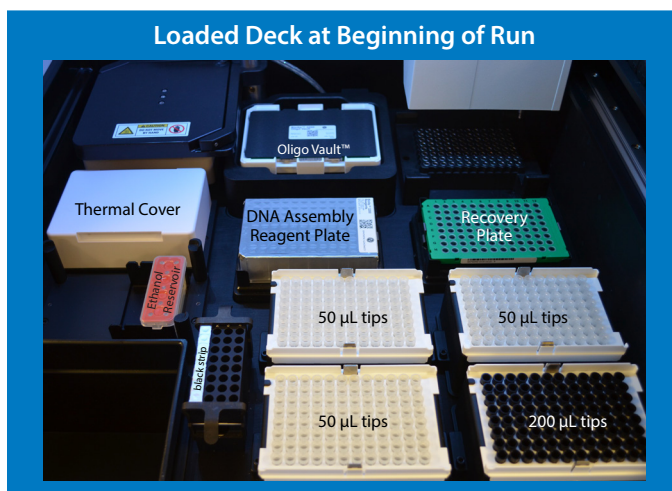
BioXp™ Loading Map and Checklist– BioXp™ Tiles and Library Tiles

Each BioXp™ Tiles kit includes Module A (+4°C) and Module B (–20°C).

1. Load reagents for a new run according to the following instructions:
 - Match appropriately sized reagents for your job; reagent sizes are denoted by stickers on boxes, e.g. **S** or **L**
 - If the door is closed, select "Unlock Door" from the instrument LCD screen and open the door
2. Thaw the **DNA Assembly Reagent Plate** (30 minutes at room temperature or 1 hour on ice)
3. Load tips by aligning the tip tray notch with the **upper left corner** of each Tip Tray Retainer
 - Load 3 x 50 µL tips
 - Load 1 x 200 µL tips
4. Add a minimum of 12 mL freshly prepared 70% ethanol to the reusable **Ethanol Reservoir**
 - Load **Ethanol Reservoir** in the right-most Reservoir Retainer position of the instrument deck

Note: Do not discard the **Ethanol Reservoir** after the run; keep for future use
5. Load plates stored at 4°C:
 - Load the **Recovery Plate** onto the Recovery Chiller with the notch in the **upper left corner**
 - Load the **Oligo Vault™ Plate** into the Thermocycler with the notch in the **upper left corner**
6. Briefly spin the **DNA Purification Strip**
 - Load the black **DNA Purification Strip** into the #1 position (left-most) with the strip pinhole closest to instrument front
7. Secure strips with the spring-loaded arms while holding strips securely in place
8. Spin the thawed **DNA Assembly Reagent Plate** before loading:
 - Load **DNA Assembly Reagent Plate** onto Reagent Chiller, notch in the **lower left corner**

Note: Be certain that the plate is properly seated within the chiller
9. Refer to the photo in the lower left panel below. Confirm that all components are securely seated. Close the door.
10. After the deck inspection, press **Start Now** or **Delay Start** (no more than 2 hours) to begin the run.



Location of BioXp™ Tiles

After the instrument run, BioXp™ Tiles (final assembly products) are located in Wells A1–H4 of the **Recovery Plate** within the **Thermocycler**.

DNA Tiles are provided in 45 µL TE Buffer. The expected yield is >200 ng of purified, linear DNA.

Seal the **Recovery Plate** and store at 2°C to 8°C for a week or at –20°C for up to a year.

Expected Results

To evaluate the success of the assembly reaction, run 6–10 µL on a 1% agarose gel. Gel examples are shown below. The image on the left shows the assembled fragment (BioXp™ Tile) clearly distinguishable without the presence of secondary bands. If you observe similar results, proceed directly to downstream applications of your choice. The gel on the right shows multiple bands. In this case, we recommend gel-purifying the Tile band to remove by-products before proceeding.

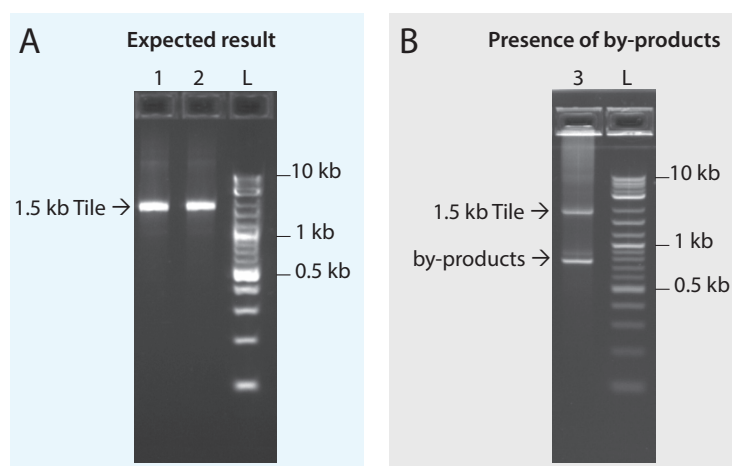


Figure 1. Representative electrophoresis results. Lanes 1, 2, and 3 contain 2 µL of assembled product from 3 different reactions. Lane L is a DNA Ladder.

Accessory Ordering Information

| Accessory Products | Quantity | Cat. No. |
|--------------------------------------|--------------------|-----------|
| BioXp™ 50 µL Natural Tips* | 1 Case of 24 Racks | 12020 CS |
| BioXp™ 200 µL Conductive Black Tips* | 1 Case of 24 Racks | 12021 CS |
| Bio360™ Minifuge | 1 each | SGC1008-B |

*BioXp™ tips have been standardized for use on the instrument. It is critical to the success of BioXp™ System runs that these are the only tips used with the BioXp™ instrument.

Technical Services

For technical assistance, please contact technical services at techservices@sgidna.com.

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