

Installing the G1926A Bar Code Reader on the G2614A Sampler Tray

Agilent 6890 Gas Chromatograph

1. Loosen the four (4) Pozidrive screws holding the two attaching fingers on the G1926A Bar Code Reader (BCR). These screws are concealed by the cover, but there are access holes over each screw position. See Figure 1.
2. Loosen the screws just enough, about $\frac{1}{4}$ turn, to allow the fingers to be adjusted easily but secure enough to hold the position until the screws can be re-tightened.

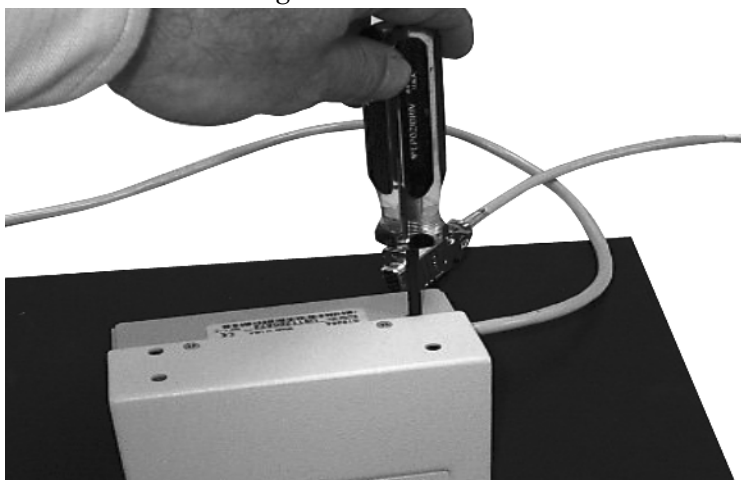


Figure 1. Bar code reader



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3. Install the Support Bracket Assembly, as shown in Figure 2 and Figure 3, to the underside of the G2614A tray assembly before installing the tray on the 6890 GC. Use the two long hex screws from the kit to attach the support bracket at the pre-drilled and tapped holes provided for mounting the BCR.

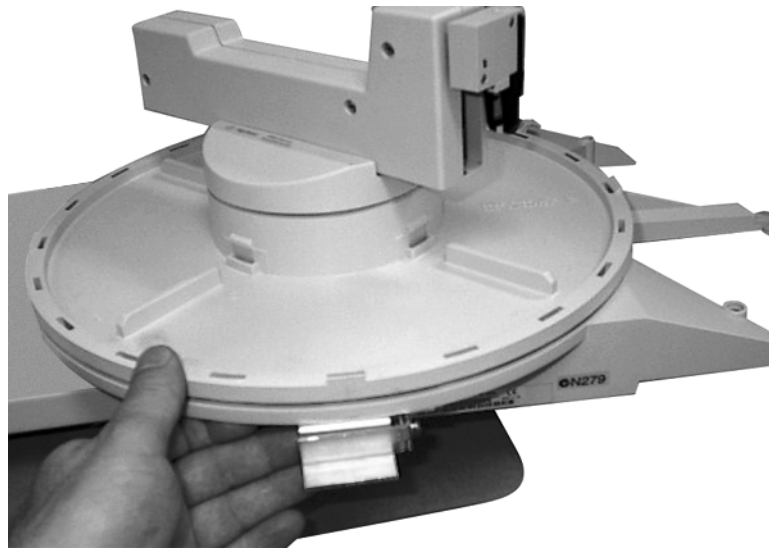


Figure 2. Support bracket installation, top view

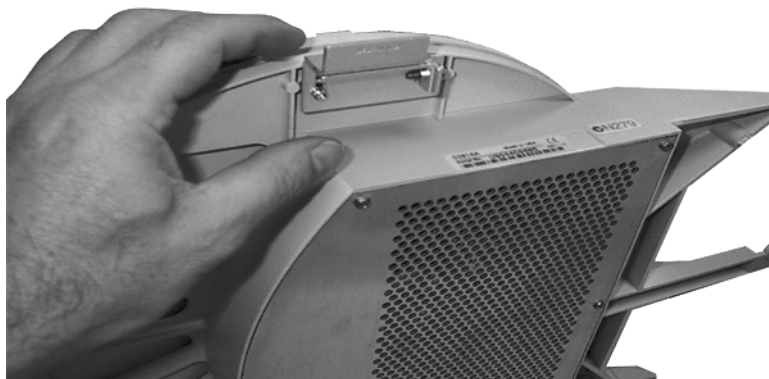


Figure 3. Support bracket installation, bottom view

4. Install the tray on the 6890 GC. Do not connect the cables at this time.
5. Hang the BCR on the tray as shown in Figure 4.



Figure 4. Mount reader to tray

6. Connect the data cable of the BCR to the **Barcode** port on the lower left-hand side of the tray assembly. See Figure 5.



Figure 5. Connect data cable

7. Connect the GC/Panel cable to the port at the lower rear of the tray assembly. See Figure 6.

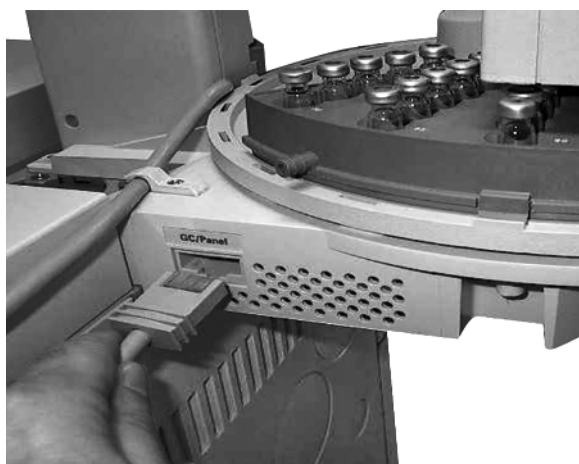


Figure 6. Connect power cable

8. Install at least one injector in the front or back position and connect its power cable to the GC.
9. Set up a test vial handling sequence on the 6890 gas chromatograph panel display and keypad. See Figure 7. This sequence will be used to adjust the BCR position for vial transfer, placement, and pickup.



Figure 7. Sequence screen

Setting up a trial sequence on the 6890 GC for BCR adjustment

1. Press the [SEQ] key.
2. Position the < cursor at PRIORITY METH # and enter 0 (zero).
3. Scroll to TYPE and press either the [FRONT INJ] or [BACK INJ] key, depending on where the injector is mounted
4. Scroll to #INJECTIONS/VIAL and enter 1.
5. Scroll to SAMPLES and confirm that it reads 1 - 1. If not, fix it.
6. Scroll to METHOD and enter 0.
7. Press [SEQ CONTROL]. Do not start the trial sequence until the following checks and adjustments have been made.

BCR position adjustments for optimal performance

Figure 8 summarizes the adjustments that you will make.

1. Adjust finger positions to receive vials

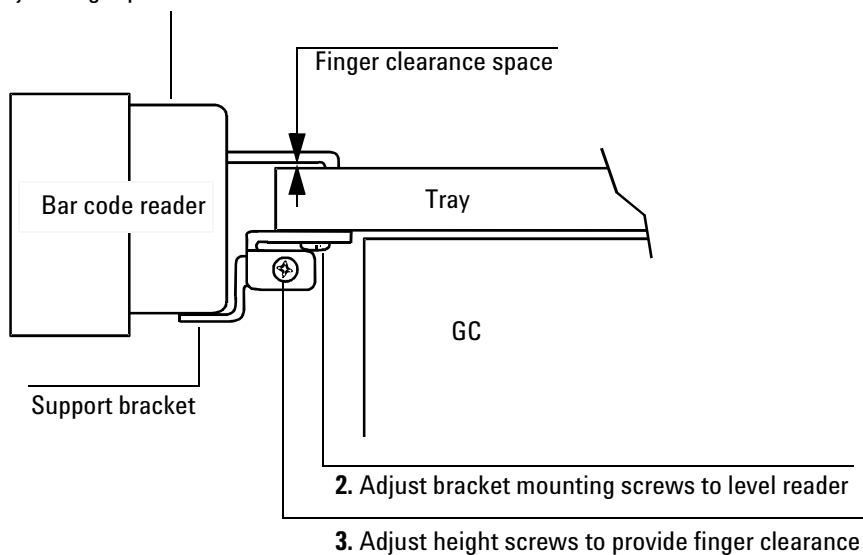


Figure 8. Adjustment summary

1. With the BCR hanging on the tray (see Figure 8), confirm that the BCR position can be easily adjusted from touching the edge of the tray to a clearance of about 5 mm.
2. Hold the BCR level and start the 6890 GC trial sequence.
3. Watch the tray arm drop-off position as it makes its initial vial placement in the BCR sample well. Move the BCR as required to catch the vial with minimal contact between the vial and the edges of the well. This will require a few trials to get the position correct. Side-to-side, elevation, and distance to the tray edge adjustments are typically required for optimal vial handling reliability.
4. When the position is correct, tighten the four finger attachment screws to lock the BCR in position.
5. Adjust the bottom support bracket to bring the BCR parallel with the front of the 6890 GC.
6. Loosen the height screws on the side of the support brackets and raise or lower the bracket until there is a small gap—about the thickness of a piece of paper—between the fingers and the tray. Tighten the screws.
7. Repeat the trial sequence several times, making fine adjustments to the BCR position as required.

Vials and labels

Correct application of bar code labels and the type of vial used are critical for reliable vial handling. Crimp cap vials (5181-3376 or 5181-3375), with carefully applied barcode labels, are the most reliable. Screw cap vials may not present a consistent target for the vial gripper because of variations in the distance between the bottom of the cap and the top of the bar code label. These variables are difficult for the user to control.

Changing vial types will generally require readjusting the BCR position. Consequently, mixing vial types on the sampler quadrants is not recommended. For best results, use crimp cap vials.

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