

## QIAxcel quick-start guide

This Technical Information summarizes how to set up the QIAxcel system. Before using the QIAxcel system, it is essential that you read the *QIAxcel User Manual* carefully and pay particular attention to the safety information.

### Unpacking the QIAxcel instrument

1. Identify a suitable place for the QIAxcel on the laboratory bench (see Table 1).
2. Ensure that the workbench is dry, clean, and vibration-proof, and has additional space for accessories.
3. Unpack and place the QIAxcel onto the bench.

### Installing the QIAxcel

Before operating the QIAxcel:

1. Remove the transport lock and install the N<sub>2</sub> cylinder (see Figures below)
2. Connect the RS232 serial cable to the QIAxcel instrument and to the computer.
3. Insert the blue USB Software Key into the USB port of the computer.
4. Install the power cord.

**Table 1. QIAxcel specifications and operating conditions**

QIAxcel specifications	
Dimensions (door closed)	Width: 362 mm (14.25 in.)
	Height: 381 mm (15 in.)
	Depth: 559 mm (22 in.)
Dimensions (doors open)	Width: 362 mm (14.25 in.)
	Height: 529 mm (20.83 in.)
	Depth: 559 mm (22 in.)
Weight	23 kg (50 lb.)
Operating conditions	
Air temperature	15–30°C (59–86°F)
Relative humidity	10–75% (noncondensing)
Power	100–240 V AC, 50/60 Hz, 360 VA Mains supply voltage fluctuations are not to exceed 10% of nominal supply voltages.



Removing the transport lock.



Installing the N<sub>2</sub> cylinder.



## Unpacking the QIAxcel Gel Cartridge

1. Add 10 ml QX Wash Buffer to both reservoirs of the QX Cartridge Stand and cover with 2 ml mineral oil.
2. Remove the QIAxcel Gel Cartridge from its packaging and carefully wipe off any soft gel debris from the capillary tips using a soft tissue.
3. Remove the purge cap tape from the back of the QIAxcel Gel Cartridge. After removing the purge cap tape, clean any gel oozing out of the purge port with soft tissue and then place the QIAxcel Gel Cartridge in the QX Cartridge Stand.

**Note:** A soft tissue should be used to wipe off any gel that may have leaked from the port.

**Note:** Ensure that the capillary tips are submerged in QX Wash Buffer.

4. New cartridges should be allowed to stabilize in the QX Cartridge Stand for 20 minutes prior to use.



Preparing the QIAxcel Gel Cartridge.

## Preparing the buffer tray

1. Wash the buffer tray with warm water and rinse thoroughly with deionized or reverse osmosis water.
2. Fill the WP and WI positions of the buffer tray with 8 ml QX Wash Buffer.
3. Fill the BUF position of the buffer tray with 18 ml QX Separation Buffer or RNA Separation Buffer.
4. Add mineral oil to cover all 3 positions to prevent evaporation. Add 2 ml mineral oil to positions WP and WI, and add 4 ml mineral oil to position BUF.
5. Load 15  $\mu$ l QX Alignment Marker into each well of a QX 0.2 ml 12-Tube Strip. Add 1 drop of mineral oil to each well and insert the strip into the MARKER1 position of the buffer tray.
6. Load 15  $\mu$ l QX Intensity Calibration Marker into each well of a QX Colored 0.2 ml 12-Tube Strip. Add a drop of mineral oil, and insert the strip into the MARKER2 position of the buffer tray.

**Note:** Be sure to spin down the 12-Tube Strip to get rid of any excess air bubbles.

## Loading the buffer tray

1. Close the cartridge door and the sample door.
2. Switch on the computer and launch the BioCalculator software.
3. Click "Change Buffer" in the "Instrument Control" window.
4. Open the sample door and carefully place the buffer tray into the buffer tray holder.

**Note:** Make sure to place the buffer tray in the correct orientation. See the picture opposite.

5. Close the sample door and click "Park" in the "Instrument Control" window.



Preparing the buffer tray.



Loading the buffer tray.



Installing the QIAxcel Gel Cartridge and smart key.

## Installing the QIAxcel Gel Cartridge and smart key

1. Remove the QIAxcel Gel Cartridge from the QX Cartridge Stand and insert it into the QIAxcel instrument.

**Note:** Make sure that the label is facing toward you when inserting the cartridge into the QIAxcel instrument.

2. Insert the smart key into the smart key socket and close the cartridge door.

## Performing cartridge calibration

Cartridges should only require calibration prior to their first use. See the *QIAxcel User Manual* for more details.

1. Launch the calibration wizard by selecting "File" and then "Intensity Calibration" in the "Instrument Control" window.
2. Click "Start" to begin the cartridge intensity calibration.
3. Once the calibration is complete, the "Calibration Verification" dialog box will open. This will show either a "Pass" or "Fail" for each channel.
4. If one or more channels fail, the calibration process should be repeated.

## Running samples

Refer to the *QIAxcel User Manual* for detailed instructions.

The QIAxcel instrument is intended to be used only in combination with QIAxcel Kits for applications described in the respective QIAxcel Kit handbooks. QIAxcel Kits are intended for research only. Not for use in diagnostic procedures.

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