**Eppendorf 5810-R: Quick-Guide** 29Apr2020

*Note: If you have problems, see Figure notes and Trouble-shooting tips (pg. 5).*

1. Turn on instrument (*switch is on right*).
2. Place properly balanced samples (in buckets) into the rotor.
	1. Use correct adaptors and bucket style (i.e., tube or microtiter plate).
	2. See images (below) regarding how to properly balance samples.
	3. Use “full-sized” sheets (provided – do not rip) to balance opposing microtiter buckets to **≤** 0.5 g.
3. Close lid securely.
4. Set Parameters (Figure 1) – Use 🡹 and 🡻 to adjust settings.
	1. Adjust speed: Press “speed”, to toggle amongst rpm—rcf—rad.
	2. Adjust time.
		1. Centrifugation with soft start/stop: If maximum acceleration/deceleration speed (level 9) is not desired, then select from nine different levels.
			1. Press “time” key repeatedly until symbol for “acceleration” appears next to TIME display.
			2. Set acceleration level “9 – 0” (level “0” corresponds to free deceleration).
			3. For levels “0 – 8”, the symbols appear in the display.
		2. Deceleration is set in the same way.
	3. Temperature: Leave at 20oC for most centrifugation. Temperature reductions cause substantial condensation inside centrifuge; thus, use low temperatures only with long spins of heat-sensitive samples. Even with a 20oC setting, the internal temperature will drop to ~16oC with spins lasting >15 min. If you do use a lower temperature, reset the centrifuge to 20oC when you are finished.
5. Press “Start”.
	1. Remain with centrifuge until maximum speed is attained to ensure unit is properly balanced.
	2. To terminate program early, press “stop”.
	3. Return promptly after specified time to retrieve samples.
6. Press “open”, when instrument beeps.
7. Remove samples.
	1. Clean instrument if there was any leakage.
	2. Leave lid open, if the unit was refrigerated, to allow drum to dry out.
8. Turn off instrument.

Figure 1. **Instrument control panel**. (*Note: The panel shown in the Instruction manual is for an updated version of this instrument; further, some of the options described in that manual are not available on the instrument housed in the Genomics facility*.)



**Figure 2. Plate Loading Guidelines:**

⮚ Ideally, you should follow the instructions shown in these images, where the samples are loaded in the plates by “rows” (e.g., A1-A12 – correct pattern) rather than by “columns” (e.g., A1-H1 – wrong pattern).

⮚ If this is not possible, at least ensure that the weight of opposing plates are within 0.5 g; further, place the samples toward the outside of the drum (vs. toward the center).

⮚ Finally, remain with the centrifuge until it reaches the maximum set speed, so that you can manually shut it down if excessive vibration occurs. Ironically, the instrument will not shut down automatically if the vibration is really bad!

⮚ In some cases, even properly weighted (and even correctly loaded) samples will cause excessive vibration. In that case, try moving the buckets to different positions in the rotor. Also, ensure that the buckets are a matched set (see Figure 3).





**Figure 3. Rotor and Swing Bucket Guidelines**



**Table 1. Rotor Weight and Load Guidelines**



 **Plate carrier load does not exceed 380 g.**

