For models: FC5706, FC5515(R), FC5714, FC5718(R), FC5816(R)

Installation Notes

- □ Placed the centrifuge on a stable and horizontal benchtop surface.
- $\hfill\square$ Allow access to a dedicated power connection as indicated by the name plate.
- □ Avoid exposing the equipment to direct sunlight or heating devices close-by.
- Avoid obstruction of any ventilation grills and allow at least 30 cm clearance around the centrifuge.
- □ Remove all packing material from both outside of the equipment and inside the chamber.
- $\hfill\square$ Use precaution when moving or lifting the centrifuge as the equipment is heavy.

Display Panel

Control panel of different models are shown below. An absorbent glass fiber pads with display panel is included in packaging as a training tool for new users to become familiar with the various displays on the equipment.

FC5515R, FC5718R, FC5816R



FC5515, FC5714, FC5718, FC5816





Display functions

Sections of the display are explained as following.



RPM/RCF

Indication of rotor number, lid status, and speed (RPM) or relative centrifugal force (RCF).



Time Indication of centrifugation time (max. 99h and 59min, or continuous)



Acc/Dec Indication of acceleration or deceleration level

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Temp Indication of actual and preset temperature values (cooled models only)



Buttons

Functions of buttons on the control panel are listed as below. If a setting is activated by pressing the corresponding button or combination, the display of the parameter will start flashing.

RPM RCF	Speed and RCF = Toggle between RPM and RCF; activate speed setting at increment of 10	Temp Setup	Temperature = Activate temperature setting from -20°C to 40°C (cooled models only)
Accel Decel	Acceleration and deceleration = Toggle between acceleration and deceleration; activate Accel/Decel setting (level 0-9)	Time	Time = Activate time setting (max. 99h and 59min, or continuous)
Temp Setup Precool	Precooling = Precool the centrifuge and rotor to the preset temperature (cooled models only)	Start	Start = Start the centrifugation (only start if the lid is securely closed)
Prog Setup	Prog = Recall stored programs	Stop	Stop = The unit can be stopped at any time
Store	Store = Store settings as programs including the rotor used (99 programs)	Door Open	Door Open = Open centrifuge lid (only open if the rotor has stopped completely)
Quick Spin	Quick = For short runs	\bigcirc	Dialing knob =Dialing knob for adjusting the activated values

General operations Notes:

- To re-start the centrifuge after a run, one must open and close the lid once (If this is not the case, the word "open" inside the rpm/rcf-display will flash), which is a build-in safety feature.
- All liquid handling must be performed outside of the centrifuge to avoid spilling.
- Before using the emergency lock release, please make sure the rotor has stopped completely by check through the see-through port on the lid.
- Use emergency lock release to open the lid as described in the manual if the safety lock was triggered.
- All places of swing out rotors must be occupied with at least buckets and racks.

Installation the rotors FC5706

c.



a. Clean the drive shaft as well as the collet with a clean, grease-free piece of cloth.



Hold the rotor with one hand and secure the rotor to the shaft by turning the fixing screw clockwise.



b. Place the rotor onto the drive shaft. Make sure that the rotor is fully installed onto the motor shaft.



FC5515(R), FC5714, FC5716(R), FC5816(R)

a. Clean the drive shaft as well as the collet with a clean, grease-free piece of cloth.



FC5515R Motor shaft and chamber



FC5515 Motor shaft and chamber



FC5714/FC5718/FC5718 R/FC5816/FC5816R Motor shaft and chamber

b. Place the rotor onto the drive shaft. Make sure that the rotor is fully installed onto the motor shaft.



Rotor with build-in nut



Rotor with separate nut

c. Fasten the nut to hand-tight



Tool for rotor with nut



Tool for rotor without nut

d. Put on and secure the lid for the rotor before centrifugation



Screw-on lid



Snap-on lid

Loading samples for angle rotors

Rotors must be loaded symmetrically and with equal weight. The adapter may only be loaded with the compatible containers. The weight differences between the filled vessels should be kept as low as possible. Therefore we recommend weighing them with a balance.

Quick Start Guide



Frontier Benchtop Centrifuges



Loading samples for swing out rotors

Swing out rotors should only be used if all positions are occupied with buckets and racks, and the diagonally opposing pair must be buckets and racks of the same size and type. Do not mix different types of buckets and racks diagonally! It is allowed to operate e.g. a 4-place-rotor with 2 loaded buckets only but the loaded buckets must be opposite to each other. Make sure that the unloaded racks also be put inside the buckets. The bolts on the rotor must be greased with the "High TEF oil". The sample tubes have to be filled evenly by eye and put into the tube racks.



Correct operation



Wrong operation



Correct operation



Wrong operation

Cleaning

- □ Keep the chamber and motor of the centrifuge clean, if necessary wipe with a clean, grease-free piece of cloth.
- □ If any spill happens during use, clean out the liquid immediately to avoid possible corrosion.
- D Periodically, wash and inspect the rotors to maintain good rotor condition.
- □ For cooled models, turn off the centrifuge and keep the lid open to allow moisture to dissipate when finished for the day.

