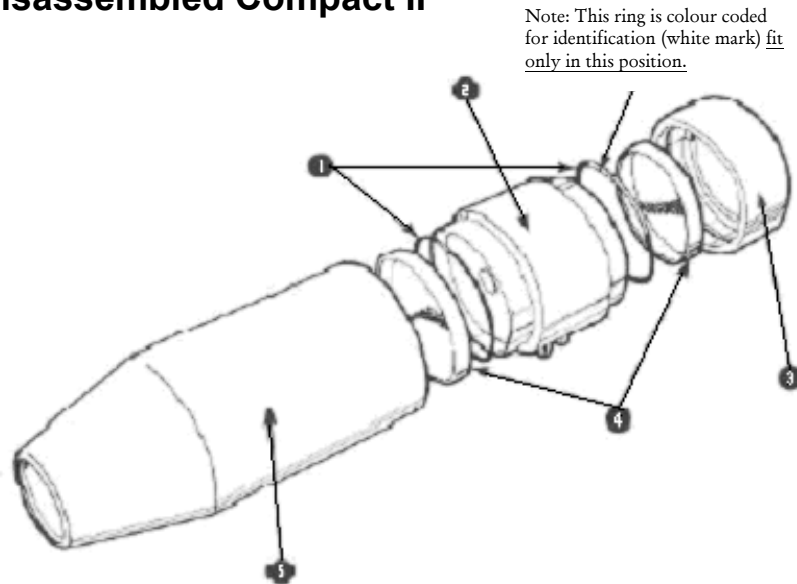


## COMPACT II CLEANING & HYGIENE

Cleaning and disinfecting of the Compact II should be carried out regularly. It is recommended that this be carried out at least weekly, also after testing known or suspected infectious patients or before testing immuno-deficient patients.

### Components of Disassembled Compact II



1. Flowhead sealing ring kit
2. Fleisch element assembly
3. Flow conditioning mesh housing
4. Flow conditioning mesh
5. Flowhead cone (complete)

### Disassembly of the Flowhead for Cleaning

- Disconnect the flowhead from the flowhead tubes.
- Grip the Fleisch element assembly in one hand and pull the cone off with the other.
- Remove the mesh housing from the other end in the same way.
- To remove the flowhead body from the Fleisch element, place on a hard surface with the largest diameter at the top. Push down on the flowhead body with thumbs and forefingers until it reaches the table.
- A final pulling and twisting action will separate the parts.
- Discard soiled filter meshes.
- After cleaning etc. check the sealing rings for damage and replace as necessary. Ensure silicone lubricant is very lightly re-applied before re-assembly. Wipe away any excess grease after the seals have been replaced. Grease must not be allowed to block the small holes in the Fleisch assembly.
- Reverse the procedure described above in order to replace the assembly. Ensure that the blue pressure tapping is nearest to the lip on the element.
- Fit new nylon flow conditioning meshes as necessary (when becoming dirty or clogged) and replace the end cap and cone.
- When attaching the flowhead connection tubing, ensure that the matching coloured pressure tappings on the flowhead and the spirometer are connected to each other.

## Cleaning and Disinfecting the Fleisch Element Assembly

- ▶ Clean each separate part of the flowhead by washing in a mild detergent to remove particulate contamination. To clean the Fleisch element, swill vigorously in water with mild detergent. Do not attempt to “rub” or “scrub” at capillaries. If the flow conditioning meshes appear dirty or blocked they should be thrown away and replaced. The flowhead body does not require disinfection, but may be disinfected with the rest of the flowhead for convenience.
- ▶ Rinse with clean water.
- ▶ Disinfect by immersion in sodium dichloroisocyanurate solution at 1000 ppm concentration of free chlorine for 15 minutes. Prepare disinfectant solution as directed in the manufacturer’s guidelines.
- ▶ Rinse with hot water to aid drying.
- ▶ Leave to dry completely before reassembling. Drying the Fleisch element assembly may require placing it in a warm place overnight. A drying cabinet is ideal; alternatively another heat source could be used.
- ▶ Wiping with a 70% Isopropyl Alcohol impregnated cloth provides a suitable form of cleaning and low-level disinfection for the case exterior, display, and keypads. Repeat at least weekly to prevent build-up of grime from normal handling and use.

Always follow the safety guidelines given by the manufacturer of cleaning and disinfectant chemicals or equipment.

## Cleaning/Disinfecting- Recommendations Chart

Part	Material	Clean/ Disinfect	Autoclave	Recommended Disinfectants
Case Exterior	Polystyrene high density foam painted with epoxy paint	Clean	No	Wiping with a 70% Isopropyl Alcohol impregnated cloth provides a suitable form of cleaning and low-level disinfection.
Display	Glass	Clean	No	
Flowhead Body	Aluminium	Clean	Viable	
Keypad	Polycarbonate	Clean	No	
Fleisch Element Assembly	Anodised Aluminium and Stainless Steel	Clean & Disinfect	Viable	Disinfect by immersion in sodium dichloroisocyanurate solution at 1000 ppm concentration of free chlorine for 15 minutes.
Flowhead Cone	Acetal	Clean & Disinfect	Viable	
Flowhead Tubes	Silicone Rubber	Clean	Viable	The flowhead will also withstand autoclaving at 134°C for 3 minutes.
Flow Conditioning Mesh	Acetyl and Polyester	Dispose	No	
Flow Conditioning Mesh Housing	TPX	Clean & Disinfect	Viable	

Definitions of cleaning and disinfection are as defined in “Sterilization, Disinfection and Cleaning of Medical Equipment: Guidance on Decontamination from the Microbiology Committee to Department of Health Medical Devices Directorate, 1996” Recommendations for chemical disinfectants are derived from the PHLS publication “Chemical Disinfection In Hospitals” 1993.

## Hygiene

It is vital for the user to set guidelines for protective hygiene measures whilst using the Compact II. There are three main potential sources of cross contamination, skin contact; aerosolised particles and saliva/body fluids. By far the most important is the last item – a minimum requirement is to use a new disposable mouthpiece for each subject tested. We recommend using the SafeTway mouthpiece for expiratory tests or the Bacterial/Viral Filter for testing involving inspiratory and expiratory manoeuvres. We also recommend that a delay of at least 5 minutes be allowed between subjects. This allows aerosolised organisms to be removed by gravitational sedimentation between tests. (*Am J Respir Crit Care Med* Vol 159. pp 610-612, 1999)