# SOP: Disassembly of Multi-Component Medical Instruments

This SOP details the **disassembly of multi-component medical instruments**, covering step-by-step procedures for safely and effectively separating instrument components. It emphasizes proper handling techniques to prevent damage, identification of assembly parts, usage of appropriate tools, adherence to manufacturer guidelines, and maintaining cleanliness throughout the process to ensure optimal instrument integrity and readiness for cleaning, sterilization, and maintenance.

## 1. Purpose

To provide a standardized method for the safe and efficient disassembly of multi-component medical instruments to prepare them for cleaning, sterilization, and maintenance.

## 2. Scope

This SOP applies to all healthcare personnel responsible for handling multi-component medical instruments during cleaning and processing in healthcare facilities.

## 3. Responsibilities

- Staff performing disassembly must be trained in instrument handling and this SOP.
- Supervisors are responsible for ensuring compliance and up-to-date training.

## 4. Definitions

| Term | Definition |
|---|---|
| Multi-Component Instrument | A medical instrument composed of two or more parts assembled for a specific clinical use. |
| Manufacturer Guidelines | Instructions provided by the instrument manufacturer regarding proper handling, disassembly, and maintenance. |

## 5. Required Materials

- Personal Protective Equipment (PPE): gloves, gown, eye protection, mask (if required)
- Clean, lint-free workspace and surface pads
- Appropriate manufacturer-approved disassembly tools (e.g., screwdrivers, wrenches)
- Instrument trays, container for small parts
- Valid copy of the instrument's manufacturer's guidelines/manual

## 6. Procedure

1. **Preparation**
    - Perform hand hygiene and don appropriate PPE.
    - Gather all required materials and verify instrument identification.
    - Review the specific manufacturer's disassembly instructions before proceeding.
2. **Inspection Prior to Disassembly**
    - Visually inspect instrument for obvious damage, missing parts, or contamination.
    - Check for locked or secured parts according to manufacturer guidance.

3. **Disassembly Process**
    - Place instrument on clean, padded surface to prevent scratches.
    - Using appropriate tools, methodically disassemble components step-by-step as outlined in the manufacturer's manual.
    - Release and remove all detachable parts (e.g., screws, locks, pins) carefully.
    - Organize and segregate each part in the designated trays to prevent loss or mix-up.
    - Minimize force; if resistance is encountered, re-consult manual to avoid instrument damage.
4. **Post-Disassembly Handling**
    - Visually inspect each component for wear, cracks, or damage and report any findings.
    - Wipe and/or rinse gross contamination as appropriate for the instrument.
    - Place all components in appropriate trays or containers for immediate cleaning and further processing.
    - Clean and disinfect the workspace; dispose of PPE as per facility protocols.

## 7. Special Considerations

> - Always consult and follow the manufacturer's recommendations for each specific instrument.
> - Do not use damaged or unapproved tools during disassembly.
> - Ensure traceability of all disassembled instrument parts (e.g., use instrument tracking tags).

## 8. Documentation

- Record instrument disassembly, identification, and any defects or issues found on the designated log sheet or digital system.
- Note the date, time, instrument ID, and staff initials for accountability.

## 9. References

- Manufacturer's Instructions for Use (IFU) for each instrument
- Facility's Infection Control Manual
- Industry standards (e.g., AAMI ST79)