

# Service and Repair Manual Template

Use this manual to document inspection, diagnosis, servicing, and repair for a product or assembly. Keep general safety and shared specifications separate from the system-specific records a qualified technician uses for a repair.

Complete the bracketed fields with approved information for the product, organization, or program being documented. Repeat the named forms where several tasks or subjects need separate records. Remove sections that do not apply and retain links to the material used to complete the document.

| Document control             | Entry                                              |
|------------------------------|----------------------------------------------------|
| Document identifier          | [Identifier used by your team]                     |
| Scope and applicable version | [Product, program, locations, and version covered] |
| Prepared and maintained by   | [Responsible role or team]                         |
| Revision and review          | [Revision, review date, and approval reference]    |

## General Information

Identify the equipment and the service boundary. Record general precautions and shared practices before system-specific maintenance tasks.

| Field                           | Complete with                                                                                        |
|---------------------------------|------------------------------------------------------------------------------------------------------|
| Applicability                   | [Product, model, identification range, covered version, and excluded variants]                       |
| Technician requirements         | [Audience, qualifications, access, and tasks reserved for authorized personnel]                      |
| Safety and general procedures   | [Isolation, lifting, handling, cleaning, and warning references]                                     |
| Tools and shared specifications | [Tool or consumable identifiers, calibration requirements, torque or fastener references, and units] |

## Maintenance Schedule

Record service tasks using the intervals or condition triggers established for the product. Link the schedule to each servicing procedure and its completion record.

| Field               | Complete with                                                                           |
|---------------------|-----------------------------------------------------------------------------------------|
| Schedule item       | [Product or assembly, task, and source-defined interval or condition trigger]           |
| Inspection criteria | [Inspection point, method, acceptance limit with units, and response to a failed check] |
| Servicing           | [Materials, tools, required precautions, and procedure reference]                       |
| Completion record   | [Equipment identifier, work performed, findings, result, and technician role]           |

## System and Assembly Record

Repeat this system record for each major assembly in the product's functional or source numbering order. Keep local specifications in the system record and link to shared specifications where they apply.

| Field                     | Complete with                                                               |
|---------------------------|-----------------------------------------------------------------------------|
| Assembly identification   | [System name, identifier, applicability, and diagram reference]             |
| Description and operation | [Purpose, components, connections, operating sequence, and normal states]   |
| System specifications     | [Value, unit, limit, test condition, and authoritative reference]           |
| Service records           | [Related inspection, diagnosis, removal, repair, and final test procedures] |

## Diagnosis and Testing

Use one diagnostic record per symptom or fault-code group. Show the decision path from observed evidence to a supported conclusion before a component is replaced.

| Field          | Complete with                                                                  |
|----------------|--------------------------------------------------------------------------------|
| Observed fault | [Exact symptom or fault code, equipment state, and operating conditions]       |
| Tests          | [Ordered test, instrument, test point, expected result, and safety precaution] |
| Decision path  | [Observed result, supported cause, and next check or corrective procedure]     |
| Verification   | [Repeat test, required restored state, and retained evidence]                  |

Repeat this procedure for each supported task or variant. Place the applicable warning before the affected action and record a result that can be checked.

| Step | Action                                                           | Expected result        | Evidence            |
|------|------------------------------------------------------------------|------------------------|---------------------|
| 1    | [One action using the exact interface label or approved command] | [Observable state]     | [Check or record]   |
| 2    | [Next action in dependency order]                                | [Observable state]     | [Check or record]   |
| 3    | [Verification or handover action]                                | [Completion condition] | [Retained evidence] |

## Removal and Installation

Keep removal and installation for the same component together unless the service source requires separate procedures. Record identification, configuration, and adjustment information needed for a correct return to service.

| Field                     | Complete with                                                                            |
|---------------------------|------------------------------------------------------------------------------------------|
| Component and preparation | [Part, equipment state, isolation, access, tools, and required authority]                |
| Removal                   | [Sequence, marking or recording requirements, handling, and inspection points]           |
| Installation              | [Replacement identification, assembly sequence, exact values, and adjustment references] |
| Return to service         | [Functional checks, leak or safety checks where specified, and completion evidence]      |

Repeat this procedure for each supported task or variant. Place the applicable warning before the affected action and record a result that can be checked.

| Step | Action                                                           | Expected result        | Evidence            |
|------|------------------------------------------------------------------|------------------------|---------------------|
| 1    | [One action using the exact interface label or approved command] | [Observable state]     | [Check or record]   |
| 2    | [Next action in dependency order]                                | [Observable state]     | [Check or record]   |
| 3    | [Verification or handover action]                                | [Completion condition] | [Retained evidence] |

## Disassembly Repair and Assembly

Document the repair boundary and inspection limits before the repair sequence. Distinguish a replaceable item from an item the source permits a technician to repair.

| Field                     | Complete with                                                                         |
|---------------------------|---------------------------------------------------------------------------------------|
| Repair applicability      | [Component, permitted repair, required qualification, and source reference]           |
| Inspection and cleaning   | [Method, wear limits, damage criteria, and cleaning requirements]                     |
| Repair and assembly       | [Sequence, replacement parts, fits or clearances, and exact specification references] |
| Adjustment and final test | [Setup, test conditions, acceptance limits, and result record]                        |

Repeat this procedure for each supported task or variant. Place the applicable warning before the affected action and record a result that can be checked.

| Step | Action                                                           | Expected result        | Evidence            |
|------|------------------------------------------------------------------|------------------------|---------------------|
| 1    | [One action using the exact interface label or approved command] | [Observable state]     | [Check or record]   |
| 2    | [Next action in dependency order]                                | [Observable state]     | [Check or record]   |
| 3    | [Verification or handover action]                                | [Completion condition] | [Retained evidence] |

## Wiring Diagrams and Schematics

Keep schematic identifiers and component names consistent with the diagnostic procedures. Record the applicability of each diagram and how a technician locates a connection or test point.

| Field                   | Complete with                                                   |
|-------------------------|-----------------------------------------------------------------|
| Drawing                 | [Identifier, revision, equipment variant, and source]           |
| Symbols and connections | [Legend, connector, pin or terminal, and circuit designation]   |
| Test locations          | [Test point, expected condition, instrument, and precautions]   |
| Cross references        | [Related diagnosis, assembly, component, and service procedure] |

## Parts Information

Identify service parts using the product's actual part references. Keep alternatives and superseded parts distinguishable from the currently applicable item.

| Field                   | Complete with                                                                   |
|-------------------------|---------------------------------------------------------------------------------|
| Part identification     | [Item number, part number, description, quantity, and drawing reference]        |
| Applicability           | [Product, assembly, serial or revision range, and configuration]                |
| Replacement information | [Approved alternative, supersession, kit contents, and compatibility reference] |
| Ordering and records    | [Required ordering information, source reference, and installed-part record]    |

## Storage Transport and Disposal

Document preparation of the serviced equipment for storage, movement, or retirement. Keep retained records and disposition evidence linked to the equipment identifier.

| Field       | Complete with                                                                           |
|-------------|-----------------------------------------------------------------------------------------|
| Preparation | [Cleaning, isolation, protection, draining, packaging, or other required preparation]   |
| Conditions  | [Storage or handling requirements, limits with units, and inspection trigger]           |
| Disposition | [Reuse, return, recycling, or disposal route and applicable source reference]           |
| Completion  | [Equipment state, retained service records, disposition evidence, and responsible role] |

## Glossary

Define specialized service terms, symbols, and abbreviations used in this manual. Use the same names on diagrams and in parts, diagnosis, and repair records.

| Field             | Complete with                                              |
|-------------------|------------------------------------------------------------|
| Term or symbol    | [Exact term, abbreviation, or diagram symbol]              |
| Meaning           | [Definition and applicable equipment or system]            |
| Related reference | [Drawing, specification, service source, or procedure]     |
| Usage             | [Preferred wording and terms that should be distinguished] |