

QUALITY CONTROL INSTRUCTION

TITLE: Electronic Testing and Quality Control Functions

REFERENCE: Departments 490 and 481

APPLICATION: I & C Equipment Class 35 and 37

PURPOSE: To define the department activities for test, inspection and documentation control, applicable to all products and systems subject to test.

SCOPE: The following activities and instructions will apply when testing all modules, subassemblies, assemblies, systems and production spares.

1.0 Documents and Drawings

A complete file of all necessary drawings, procedures, schematics and wire lists, including changes and R/A's will be maintained in the Quality Assurance central file for use by Departments 490 and 481.

2.0 Record Log Books

Test Engineering (490) shall record module debugging/trouble shooting activities in record log books for the purpose of establishing a basis for failure mode and trend analysis. Log records for other test activities may be required and shall be implemented on an "as need" basis at the discretion of the Supervisor of Electronic Testing.

3.0 Test Record Documentation and Retention

Test data entries shall be recorded by the test operator (490) upon the correct data form denoted by the Acceptance Test Procedure. The completed records, signed and dated, shall be given to Inspection (481) for their entry of all required inspection dispositions, signature and date performed.

REVISED	PREPARED BY	APPROVED BY	DATE REL.
9/23/82 <i>ASB</i>	F. M. Butler	<i>ASB</i>	1/20/81
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- 3.1 Completion of test data entries by both (490 & 481) personnel must be accomplished prior to presentation of product for final acceptance by customer representatives.
- 3.2 CCC product shipments authorized by written waiver of customer source inspection shall have all test data and inspection entries completed prior to shipment of the product. (Ref. paragraph 5.0)
- 3.3 Inprocess or final customer witness or hold points will be coordinated by CCC Quality Control (481) and Contracts Departments (660). Reproduction of all required test data copies will be performed by (481). Original test data documents shall be retained per the requirements of Quality Control Manual QCM #2, Section 24, paragraph 24.4.
- 3.4 Inspection records, forms 81-069, 81-056 and 81-001 shall be documented by (481) Inspection personnel. Completed inspection records, forms and tags identifiable to the product tested and inspected shall be retained per the requirements denoted by (paragraph 3.3).

4.0 Test Verification

Prior to conducting any test function, the test operator shall present to Quality Control (481), a form #10 or #11 card, as applicable for in process or final test with all entries made i.e., order number, operation number, quantity, part number, and description. Quality Control Inspector shall verify as a minimum:

- a. Correct ATP, revision level, and any outstanding R/A's
- b. Correct type equipment, fixtures, test console, when applicable, and test set up
- c. Test equipment bears current calibration status
- d. Customer hold or witness required

The Quality Control inspector witnessing a test parameter or test function on a surveillance basis shall apply his in process inspection stamp to the data entry witnessed.

All system test data is subject to review by the Supervisor of Electronic Testing prior to requesting customer to witness.

5.0 Module Testing

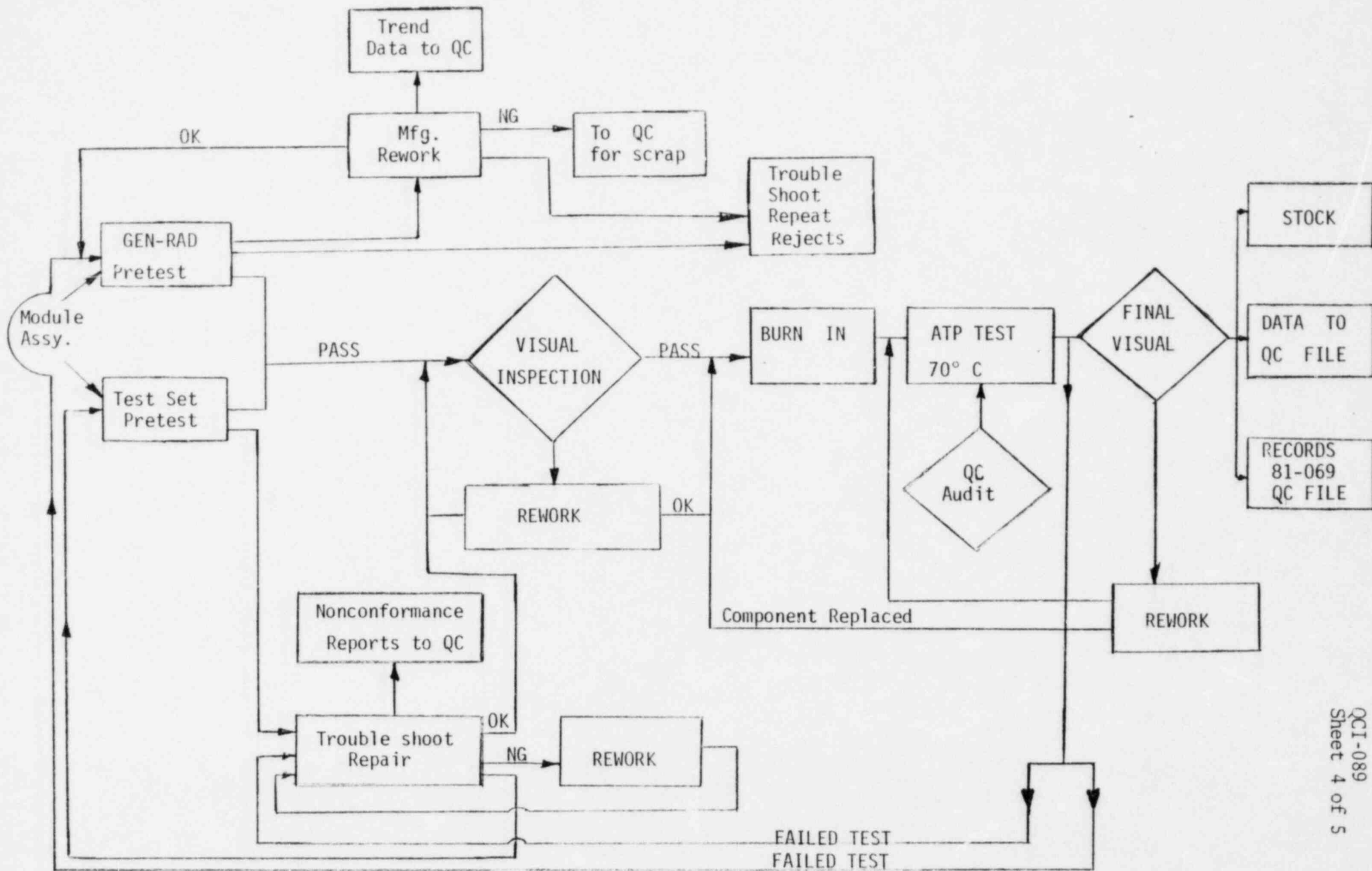
All module testing shall be performed upon lots of 100 or less; modules shall be processed through the test, visual, hypot, burn-in and functional and final acceptance sequence as specified by the applicable acceptance test procedure. (Flow Charts on pages 4 & 5 are shown for reference purposes only).

6.0 Product Verification (481)

Final Inspection shall verify compliance with all characteristics listed below prior to presentation for Customer Acceptance.

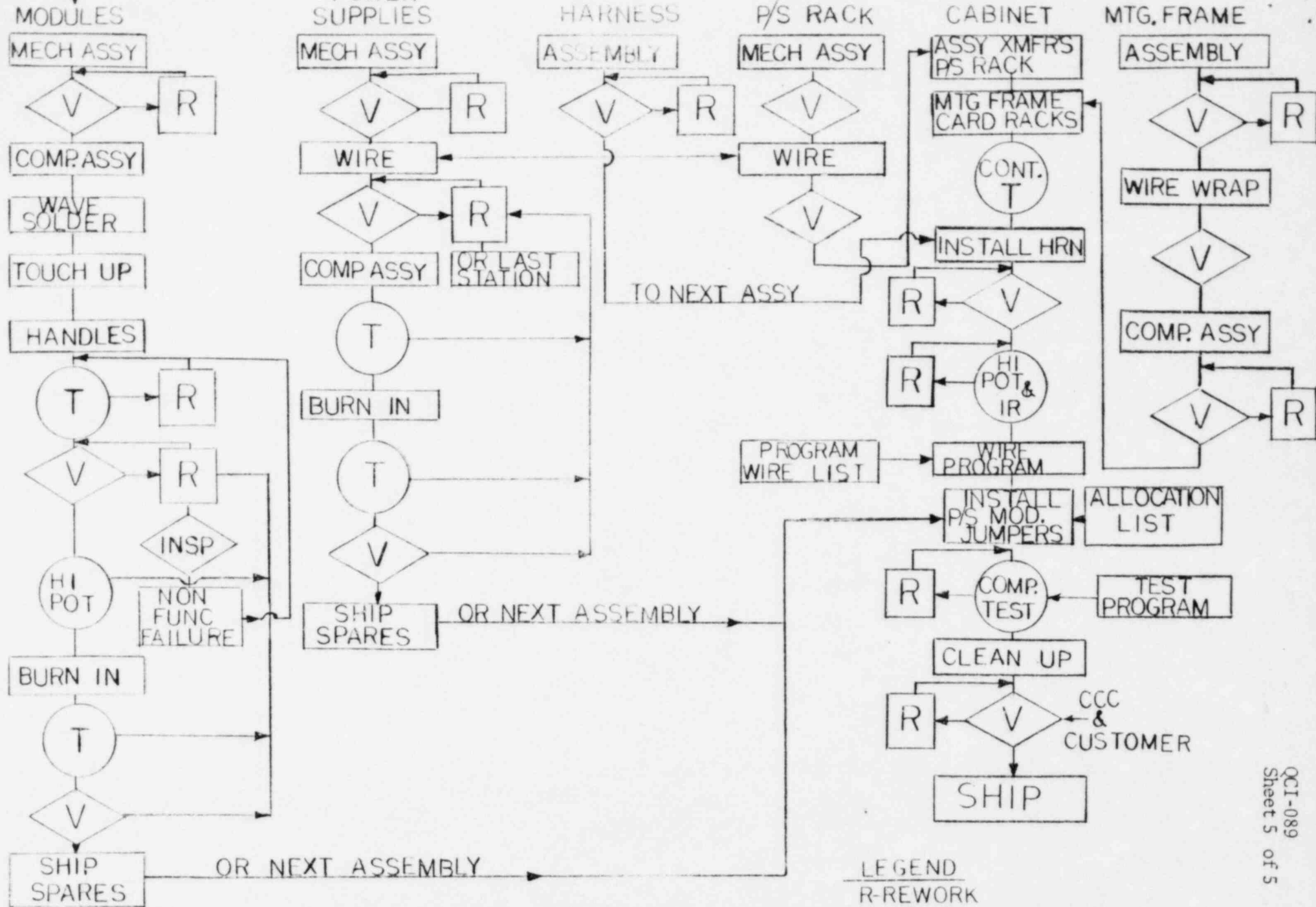
- a. Equipment/Product markings, identification plates and labels agree with the latest approved assembly drawings and allocation procedures.
- b. Completion of assembly, finishes, fitup and workmanship meet the requirements of assembly drawings, procedures and quality standards.
- c. Packaging and Shipping procedures denote the applicable classification level of ANSI N45.2.2 and/or customer documents.
- d. Acceptance Test records and Inspection records are complete, identifiable to the assembly part number, serial number and purchase order.
- e. CCC order, certificate of compliance, customer inspection release, and test data (when required) are all available to accompany the shipment.
- f. Verify that the packaging, methods, materials and markings comply with the approved procedure or customer document designated for use prior to shipment.

MODULE FLOW CHART



SSILS FLOW CHART

REF. SHEET 3



LEGEND
 R-REWORK
 V-VISUAL
 T-TEST