



QUALITY ASSURANCE

QMP

Quality Management Plan

Issue 1

TABLE OF CONTENTS

1.0	Scope	1
2.0	Quality System	1
3.0	Organization	1
4.0	Design Specifications	1
5.0	Documentation Standard And Change Control	2
6.0	Material Selection	2
7.0	Software	2
8.0	Design Reviews	2
9.0	Planning	2
10.0	Procurement	3
10.1	Purchase Order Data	3
10.2	Purchase Order Quality Conditions	3
10.3	Source Selection	4
10.4	Material Traceability	4
10.5	Major Subcontractors	4
11.0	Quality Control Plans	4
12.0	Manufacture/Assembly	4
13.0	Inspection	4
13.1	Goods Receiving	4
13.2	Kit Inspection	5
13.3	Inspection Criteria	5
13.4	Wire Checking	5
13.5	Final Inspection	5
13.6	Customer Inspection	5
14.0	Testing	6
15.0	Quality Records	6
16.0	Customer Documentation	6
17.0	Firmware	6
18.0	Packing	6
19.0	Audit Plan	6

20.0	Customer Audit.....	7
21.0	Release Certification	7
22.0	Non-Conformances	7
23.0	Technical Manuals.....	7
24.0	Installation And Commissioning	7

1.0 SCOPE

The hierarchy of quality procedures to be applied to this contract are:

- ↳ Quality Plan QP 2107
- ↳ Quality Control Plans
- ↳ Company Quality Manual
- ↳ Quality System Procedure Manuals

2.0 QUALITY SYSTEM

The HPI quality policy and Management organization is set out in the Company Quality Manual, which in turn is supported by formal quality management procedures, standards and work instructions.

The Company Quality Manager is responsible for the maintenance of the Quality System and reports directly to the Managing Director.

This documentation system forms the basis of the company's plan to apply and qualify for **ISO9001** certification.

3.0 ORGANIZATION

An HPI project team controlled by a Project Manager shall be allocated to this contract to insure that all contractual requirements are met.

All formal communication with the customer's point of contact will be through the Project Manager.

A Project Quality Engineer shall be allocated to insure that all quality requirements are met.

4.0 DESIGN SPECIFICATIONS

A system design specification shall be prepared in accordance with procedure DP (Design Procedure) 4.1. The system design specification shall be referenced on the system assembly schedule and detailed on the project plan.

The hardware design specification and software functional specification will not be required as independent documents but their requirements will be included within the system design specification.

5.0 DOCUMENTATION STANDARD AND CHANGE CONTROL

All items shall be developed and issue controlled in accordance with the requirements of documentation scheme C of procedure DP 4.16 - Design Manual.

Existing products shall have change control in accordance with scheme D.

Any test equipment developed for this contract will be in accordance with scheme B.

6.0 MATERIAL SELECTION

Where possible, materials and components shall be selected from the company parts catalog listing (PCL) and existing "E6" parts.

New materials and components shall be specified by one of the following:

- ↪ New PCL Number
- ↪ Detail Drawing
- ↪ Procurement Specification (DP 4.2)

Any new suppliers required to supply items for production build units shall be approved in accordance with procedure GP 6.1 prior to incorporation of items into design documentation.

7.0 SOFTWARE

A software quality plan shall be prepared in accordance with procedure GP 2.5.

Software to be installed into firmware shall be identified by a "PR" number in accordance with company software procedures. These "PR" numbers shall be called up on the relevant assembly schedule by means of an "ML" list or by means of a "ZL" configuration list.

All "PR" sheets shall be approved by HPI Q/A prior to issue and incorporation into drawing packages.

8.0 DESIGN REVIEWS

Design reviews will be detailed on the Project Plan and performed to procedure DP 4.22.

9.0 PLANNING

Project planning shall be performed in accordance with procedure GP 3.4.

10.0 PROCUREMENT**10.1 PURCHASE ORDER DATA**

Purchase orders will specify materials/components exactly as quoted on drawings/schedules/parts catalog listing.

10.2 PURCHASE ORDER QUALITY CONDITIONS

Purchase orders will invoke HPI purchase order quality codes appropriate to the material/component specification and the source selected.

Certificates of conformance will be non-mandatory unless specified by the material/component specification.

Certification of traceability to raw material source will be non-mandatory unless specified by the material/component specification.

10.3 SOURCE SELECTION

All purchase orders will be placed on Company approved sources.

10.4 MATERIAL TRACEABILITY

All materials purchased for this contract and received into stores shall be traceable to the relevant purchase order by means of goods receiving notes (GRNs).

10.5 MAJOR SUBCONTRACTORS

No major subcontractors will be used to complete this contract.

11.0 QUALITY CONTROL PLANS

Quality control plans shall be prepared for all major assemblies manufactured specifically for this contract.

12.0 MANUFACTURE/ASSEMBLY

Manufacture/assembly will be carried out by the Product Support Group and controlled by normal manufacturing record technique.

Manufacturing record entries will display all significant operations and appropriate inspection stages.

13.0 INSPECTION

13.1 GOODS RECEIVING

All purchased supplies will be inspected in accordance with procedure MI 6.3.

Active testing of electrical/electronic components/assemblies will not be carried out except where required by the controlling drawing or procurement specification.

13.2 KIT INSPECTION

Kit inspection will be performed where required by standard quality plans for existing product.

13.3 INSPECTION CRITERIA

Workmanship/finish and conformance to schedule/drawing requirements.

13.4 WIRE CHECKING

Wire checking will be performed where wiring will not be proven by subsequent active testing.

13.5 FINAL INSPECTION

- ↪ All previous inspections carried out.
- ↪ Test evidence available.
- ↪ Equipment complete to system schedule/assembly drawing including any details hazard warning/health and safety labels.
- ↪ Fixings tight and locked where specified.
- ↪ Equipment clean, undamaged and part-marked to drawing requirements.
- ↪ Build standard conforms to schedules.
- ↪ Serialized units recorded.
- ↪ Verify that embodied software is identified by the correct PR number issue, endorsed with an authorized test stamp and that test certificates are available.
- ↪ Verify that the CPI License Number is recorded, the License Number is on the Series 2E Governor CPU Board and that the disk is available.

13.6 CUSTOMER INSPECTION

This order is subject to inspection by the Customer or their appointed representatives.

Inspection points will be detailed on the quality control plans and reasonable notice is required in writing to arrange any such inspection visits.

14.0 TESTING

Sub-unit testing will be carried out to test specifications quoted on the relevant assembly schedule.

Test certificate numbers will be recorded on appropriate manufacturing record cards.

Customer acceptance testing shall be performed in accordance with a customer approved Factory Acceptance Test (FAT) Specification. The FAT specification will be prepared as detailed in par. 9 of DP 4.32 and the customer will be notified in advance of testing and invited to attend.

15.0 QUALITY RECORDS

Quality records shall be produced to ensure the conformance of the final product to order requirement. All records shall be maintained for 10 years.

16.0 CUSTOMER DOCUMENTATION

The documentation as agreed on the supplier document schedule (SDS) shall be prepared and submitted to the customer by the relevant schedule dates.

All transmittals to the customer shall be accompanied by a Suppliers' Front Sheet and a Suppliers' Document Transmittal.

17.0 FIRMWARE

All firmware shall be prepared in accordance with procedure MP 9.2 using calibrated copying equipment and test certificates raised. All firmware shall be stamped with a valid HPI stamp.

18.0 PACKING

The equipment will be packed to "Retail Trade" standard suitable for the mode of transport. Package marking will be in accordance with the customer's requirements.

19.0 AUDIT PLAN

HPI Quality Assurance shall prepare a project audit plan for this contract. Audits shall be performed at the following stages as a minimum:

- ↳ On completion of production design documentation.
- ↳ On completion of system factory acceptance testing and prior to dispatch.

In addition, software audits will be performed in accordance with the software quality plan and quality control plans

Suppliers not on the HPI approved suppliers list will be subject to quality system approval prior to contract placement.

20.0 CUSTOMER AUDIT

The customer and/or their authorized representatives reserve the right to visit HPI and any sub-contractors for the purpose of undertaking quality audits. Five days' notice will be given to HPI of any proposed QA audits/assessments.

21.0 RELEASE CERTIFICATION

A customer-supplied inspection release note will be required for the system or part of the system prior to dispatch.

On completion of final inspection and satisfactory packing a Certificate of Conformity will be raised by Inspection department in response to a Dispatch Request.

22.0 NON-CONFORMANCES

Non-conformances arising during procurement, manufacture, test and inspection will be documented in accordance with Company Concession/Production Permit Application procedure (GP 13.1).

Any concessions requiring customer approval will be actioned in accordance with customer document number BPX/B7R/P-09.14.

23.0 TECHNICAL MANUALS

Technical manuals prepared for use on this contract shall be prepared in accordance with procedure DP 4.27.

24.0 INSTALLATION AND COMMISSIONING

Installation, commissioning and test will be subject to a separate contract and quality plans, procedures and checklists will be prepared as required.

HPI, LLC**CONTRACTS DEPARTMENT**

PRODUCT QUALITY PLAN: QP2107

Project:

Customer:

Contract:

HPI Ref.:

Issue:

Date:

Compiled By:

Title:

Approved By: _____

Date: _____

Title:

COMPANY QUALITY MANAGER

Approved By: _____

Date: _____

Title:

PROJECT MANAGER

Distribution:

Project Manager
Project Team
Customer
Quality Assurance
Technical Library

