Quality Manual

X-Key(China) Limited

Rev 1.3

Approved

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1 Introduction, objectives and methods

1.1 Introduction:

This Quality Manual describes the Quality management System (QMS) of X-Key(China) Limited.

The objective of the Manual and the procedures, instructions and forms mentioned here is:

1. To demonstrate the ability of X-Key to regularly supply products according to the requirements of Customers, Laws and Industry Standards.
2. To improve the level of Customer Satisfaction by the effective implementation of the QMS including the process of continuous improvement.
3. This QMS of X-Key is based on ISI/TS 16949:2002, AS9100 and ISO 9001:2000 and is written in accordance to these standards

X-Key (China) Limited is an innovative company with more than 7 years of experience in designing and manufacturing rugged Industrial, Military and Medical Keyboards/keypads, all kinds of Input Devices and ATM EPPs. Our products are supported by very professional engineering, R&D and manufacturing expertise. Our experienced in-house QC staffs are aided by an independent laboratory, to ensure the very highest standards. Our staff of 30 is working around the clock to be sure that your shipment is in best quality. We also have a technical support team that can answer any questions you may have regarding our products. If you have any questions, please do not hesitate to contact us via telephone or our online support. We will provide you the necessary support within the 3 days to answer any technical questions you may have about our products.

X-Key manufactures a wide range of standard and customized Industrial Keyboard/keypads/Pointing solutions/ATM EPPs and Medical Keyboard/ Pointing solutions. Our professional products cover various integral pointing devices such as touch pads, trackballs, mouse buttons and joysticks etc.

CUSTOMIZATION

X-Key views its relationship with a customer as a true partnership. Our commitment is to devote

full effort to not only providing products that succeed in the customer's own markets, but also supports the customer with fast, comprehensive service. X-Key works closely with customers at every step of the development process, ensuring that the customers own concerns about timing, price, and specifications are met. This close working relationship extends to technical support after the product is delivered, with the aim of resolving any possible issues that might arise, efficiently and conveniently.

COMMITMENT TO QUALITY

Everyone at X-Key, from the executive team to line workers, is dedicated to superior quality. X-Key's conception of quality encompasses not only the manufacture of reliable products, but indeed every aspect of its operations from design to service.

VISION

X-Key has maintained a strong vision to become one of the industry's most highly regarded keyboard manufacturers, while keeping vigorous revenue growth. This vision encompasses an insistence on superior quality and advanced technology, and as a result X-Key has maintained an impeccable record for product performance and reliability. X-Key continues its pursuit of this vision, continually upgrading its capabilities and performance.

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1.2 Business Objectives

Conformance with the requirements and expectations of the customers in the levels of quality and in process control to ensure the product at least meets the specific requirements.

1.2.1. Performance of the work and supply to the customer on time

1.2.2. Customer satisfaction in the long run

1.2.3. Conformance with legal requirements

1.2.4. Supply of products and service in a fitting manner

1.2.5. Effective and efficient work whilst continually improving

1.2.6. Correct performance, first time continuously

1.3 The method:

1.3.1. Design and definition of the quality policy of the company:

Definition of the company's goals in relation to quality as formally expressed by the management as described in the various procedures

1.3.2. Design and definition of the quality management of the company:

Strategic planning, resource allocation, planning, implementation and control of the quality whilst emphasizing the responsibility of the management

1.3.3. Design and definition of the QMS of the company:

Organizational structure, fields of responsibility and authority, procedures, design of processes and resources needed for the implementation of the QMS

1.3.4. Design and control of the QMS of the company:

The techniques and actions in use to fulfill the quality requirements

1.3.5. Design of Quality Assurance in the QMS of the company

Planning of the resources and methods required

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2 Quality Policy

The company's management will act to consolidate a system which will include all subjects connected to assuring the quality in the plant and ensure that the finished product will conform to the requirements as they appear on the order and will answer to all the customers' expectations.

The management will act according to the organizational structure and the allocation of resources and trained and qualified staff to ensure in the best manner the quality of the product and the requirements of the customer and prevent the production and supply of non conforming products.

The management will implement an efficient and effective QMS according to the requirements of ISO/TS 16949:2002, AS91000 and ISO 9001:2000.

2.1 Goals of the Quality Policy:

- **Customer Satisfaction** by implementing the quality required and reduction of costs of poor quality
  Conformance to planned timetables
- **Effective and efficient management of processes** which will prevent unnecessary expenses and will contribute to increased efficiency and continuous improvement
- **Nurturing of the Human capital** by training and education as needed.

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3 Processes at X-Key

X-Key identifies in this manual the processes that are required to maintain the QMS and to the requirements of ISO/TS 16949:2002, AS9100 and ISO 9001:2000 in the following manner:
Customer Orientated Processes (COP'S), these are processes that have a direct connection to the customer.
Support Orientated Processes (SOP'S) internal processes needed to support the COP'S
Management Orientated Processes (MOP'S) of the system which are used as controls
These processes are based on the PDCA model and actions are planned, implemented, checked for effectiveness and corrective actions or improvements implemented

The interaction of these processes can be seen in the following table. The processes are defined to show their inputs and outputs, owner and basic documentation including references to the procedures and/or work instructions when relevant. Included is the method of monitoring and measuring the effectiveness of the process. When effectiveness is not proved then corrective actions are taken. The monitoring also allows for the collection of data for continual improvement.
X-Key operates a monitoring and analysis system based on the Quality Delivery and Cost model which measures the following:

- Not right first time
- Delivery schedule achievement
- People productivity
- Overall equipment effectiveness
- Value added per person
- Floor space utilization

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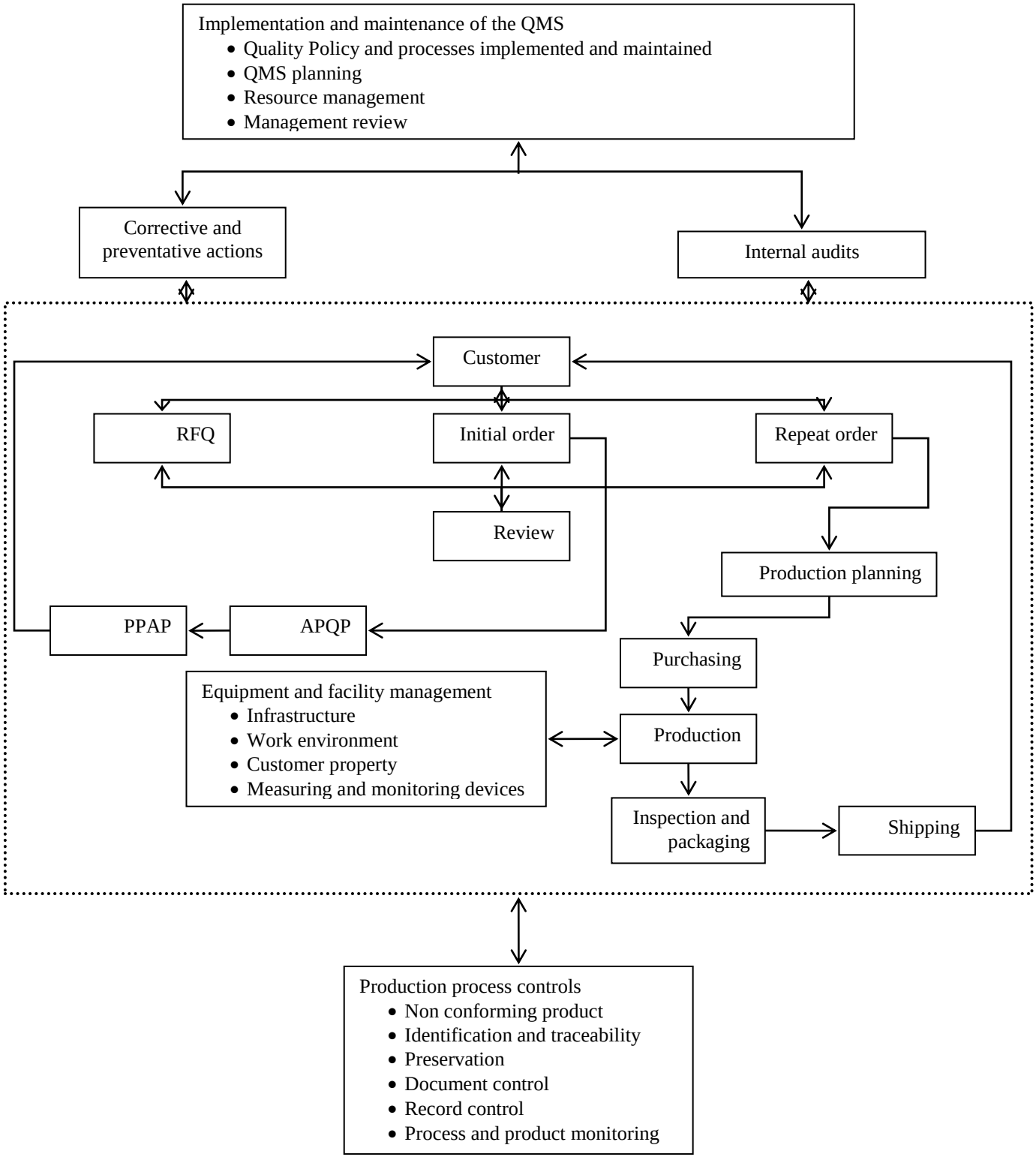
3.1 Sequence and Interaction of process



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3.2 Definition of processes

Process	Type	Owner	Actions	Inputs	Outputs	Documentation	Monitoring	Measurement of effectiveness
Review of customer requirements	COP		Feasibility study Credit rating Offer Approval of order	Customer request Definition of part	Quotation Order Production planning	Contract review Records	Time for reply	Number of orders Profitability
Part and process design APQP	COP		Conversion of requirements of customer to part and process that will satisfy him	Requirements of part Special requirements of customer Customer timetable Results of feasibility and contract review	Approved process Approved part	APQP procedure work instructions PPAP design control	Timetable Cost	Time to approval Cost Zero series
Production planning	COP		Planning of production	Customer orders and forecasts	Production planning stock orders	Internal orders	Orders	production efficiency On time delivery
Production of industrial input devices	COP		Receipt and approval of raw material	Production plan	Material for production of industrial input	Work instructions	Monitoring of inputs (cost and quantities)	Efficiency (ratio of outputs to inputs)

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Process	Type	Owner	Actions	Inputs	Outputs	Documentation	Monitoring	Measurement of effectiveness
Production of industrial input devices			Conversion of raw material Control of receipt, process and material	Specifications and work instructions Machinery and infrastructure Raw material Workers	devices	Quality records	Output (Gross and scrap) Failures	Production targets
Production of medial input devices	COP		Receipt and approval of raw material Conversion of raw material Control of receipt, process and material	Production plan Specifications and work instructions Raw material Machinery and infrastructure Workers	Parts according to customer requirements	Work instructions Quality records	Monitoring of inputs (cost and quantities) Output (Gross and scrap Failures	Efficiency (ratio of outputs to inputs) Production targets
Packaging and dispatch	COP		Receipt and approval of packaging	Supply plan agreed with customers	Dispatch to the customer in the packaging and on	Work instructions	Timetable (deviations reported to	Conformity to program

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Process	Type	Owner	Actions	Inputs	Outputs	Documentation	Monitoring	Measurement of effectiveness
Packaging and dispatch			Packaging according to customer requirements Interim storage Planning of dispatch and preparation of documents Dispatch	Packaging specifications Packaging materials Workers Machinery and infrastructure	time	Quality records	sales)	Conformity to customer requirements
Invoice and collection	COP		Invoice according to the agreed Collection	Delivery notes Orders	Invoices Money	Invoices Records	Tracking of invoices	% of collection
Customer Feedback	COP		Treatment of customer requests Analysis of customer satisfaction	Requests Reviews Complaints Comments	Replies, comments and improvements	Reviews, meetings and letters	Time of reply to customer	Customer satisfaction

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Process	Type	Owner	Actions	Inputs	Outputs	Documentation	Monitoring	Measurement of effectiveness
Maintenance	SOP		Preventative maintenance Installation and adaptation of new equipment Maintenance Management of spares	Maintenance plan Reports on maintenance problems Machinery and infrastructure Technical literature	Repairs to machinery and infrastructure New equipment Effective stock of replacement parts	Maintenance procedure Maintenance plan Technical literature	Reaction time and actual time Cost of maintenance Repeat problems	Standard time Reduction of downtime
Tooling	SOP		Manufacture and preventative maintenance of tools Maintenance Support to maintenance	Production plan Internal orders Machinery and infrastructure Technical literature	Production tools	Drawings Tool records	Production timetable Monitoring of sub contractors	Production timetable Reduction of downtime
Purchasing Raw Material Purchasing	SOP		Stock management, order point	Production plan	Stock of raw material	Purchase procedure	Order monitoring	Adherence to plan

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Process	Type	Owner	Actions	Inputs	Outputs	Documentation	Monitoring	Measurement of effectiveness
Raw Material			Follow up of orders Price reviews	Historical data Material specifications		Approved supplier list Material specifications	Size and value of stock Supplier evaluation	Cost of shortage Effective stock
Purchasing semi finished	SOP		Contract with supplier Follow up of orders Price reviews	Customer orders Drawings and technical specifications	Semi finished goods	Purchase procedure Approved supplier list Purchase specifications	Order monitoring Approval of first sample Supplier evaluation	Adherence to plan Cost of shortage Customer satisfaction
Movement and identification on work flow	SOP		Loading, unloading and movement of containers between stations Preservation of product Identification of status at all stages	WIP Storage and movement equipment Routing cards	Protected and identified products in the correct place	Identification tags Non conforming product procedure	Non conformance due to lack of preservation Status identification	Complaints due to mixed parts Level of rejections as a result of lack of preservation
Calibration of measuring equipment	SOP		Calibration and verification of equipment Storage and	Equipment Measuring	Measuring equipment calibrated and conforming to	Calibration procedure Calibration specifications	Follow up on calibration status and usability	Calibration timetable Improvement of

Process	Type	Owner	Actions	Inputs	Outputs	Documentation	Monitoring	Measurement of effectiveness
			protection of equipment Measurement system analysis Identification of equipment	procedure External laboratory	requirements Confidence in measuring ability	Calibration records MSA		measuring confidence
Training	SOP		Identification of training needs and organizational development Development of training plan and training methods Implementation of training Connection to organizational targets	Plan for HR in business plan Training aids External training organizations	Skilled and aware workers Increased motivation Internal growth and improvement of use of information * Qualification and empowerment of staff	Training plan Training Procedure Records of training and qualifications	Implementation of training plan Measurement of results (outputs, waste, set up time etc	Increase of output Improvement of quality, reduction of non conformance's
Treatment of non conforming material	SOP		Identification of non conforming material	Engineering specifications Control plan	Customer satisfaction Savings	Procedure for control of NCM	Tracking of CAR's	Number of customer complaints

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Process	Type	Owner	Actions	Inputs	Outputs	Documentation	Monitoring	Measurement of effectiveness
			Decision as to treatment	Training and qualifications	Corrective action requests	Tags		Time of identification 1. Where 2. When
			Analysis of cause of failure	Corrective Action Requirement	Continuous improvement of processes	Corrective actions procedure		
Corrective actions	MOP		Decisions as to treatment of root cause to prevent reoccurrence Analysis of possibility of failures	Customer complaint Audit findings Discovery of non conformance in process Suggestions of workers	Savings of poor quality costs Savings of poor quality costs Customer satisfaction Continuous improvement of processes	Preventative actions procedure Records	Tracking of CAR's Tracking of actions	Non reoccurrence of non conformance's Timetable for closing CAR's
Preventative actions	MOP		Decision as to treatment	FMEA Audit findings	Savings of poor quality costs	Records	Tracking of actions	Non occurrence of failure

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Process	Type	Owner	Actions	Inputs	Outputs	Documentation	Monitoring	Measurement of effectiveness
				Customer communications	Customer satisfaction			Timetable for closing PAR's
Management Review	MOP		Review of suitability and efficiency of QMS Review of possibilities of improvement Decisions for actions	Information on efficiency and effectiveness of the plants system in relation to customer requirements	Decisions of the management to improve the quality system and its processes and products Resources needed	Form which instructs as to the inputs and outputs of the review and supporting information	Meeting every half year	Customer satisfaction No nonconformances in audits
Internal audits	MOP		Inspection of conformity to requirements of the standards, the QMS and the products Effective implementation of the QMS	Qualified auditors Previous audit reports Audit plan	CAR's Recommendations for improvement	Audit procedure Reports	Audit plan Reduction of complaints and non conformance's	Continuous improvement as a result of corrective actions

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4 Responsibility and authority

4.1 General manager

4.1.1. Overall responsibility for the quality of the products supplied to the customers

4.1.2. Communication and interpretation of the Companies policy and goals to all members of staff

4.1.3. Determining the quality goals and Tracking of the quality levels in the plant in relation to those determined

4.1.4. Appointment of multi disciplinary teams as required.

4.2 Quality Manager

4.2.1. Preparation of the required documentation for the QMS- preparation and approval of test and inspection criteria for all the stages of acceptance of raw material and production, design and preparation of inspection and testing forms.

4.2.2. Inspection and testing of raw material, material in production and final inspection.

4.2.3. Approval of products as acceptable or not to requirements, approval of use of suspect material and identification and Tracking of non conforming material and products. Management of the MRB and approval of decisions

4.2.4. Determining the needs of the plant for test and inspection equipment and the maintenance, storage and control of this equipment

4.2.5. Support to management and staff in the identification and solution vof problems in work processes and initiation of improvement activities to increase the quality level and prevent reoccurrence of problems

4.2.6. Inspection and approval of technical documents – drawings, specifications etc that are sourced from the technical office.

4.2.7. Recommendation as to approval or rejection of suppliers and evaluation of performance.

4.2.8. Coordination of multi disciplinary teams.

4.2.9. Management representative with the responsibility to ensure that the QMS is established, implemented and maintained and to report on the state and need for

change and improvement. To promote the importance of the customer and has the authority to resolve matters relevant to quality

4.2.10. Customer representative with the responsibility and authority to ensure that customer requirements such as choice of critical/key characteristics, targets corrective and preventative actions are addressed.

4.3 Technical Manager

4.3.1. Supply of design, development and maintenance to production departments and the management

4.3.2. Control and maintenance of engineering drawings

4.3.3. Feasibility studies of requirements and technical input to contact reviews

4.3.4. Training for technical subjects

4.4 Sales and marketing Manager

4.4.1. Preparation of strategic plan for the long term and tactical plan for the short run

4.4.2. Appointment of agents.

4.4.3. Communications with customers until delivery of goods

4.4.4. Actions to increase sales and market awareness

4.4.5. Review of customer requirements, documentation of RFQ's and orders.

4.4.6. Marketing input to contact reviews

4.4.7. Treatment and Tracking of customer complaints.

4.5 Operations manager

4.5.1. Coordination and management of all operations that are connected with production and delivery of goods. Prioritization, coordination and management of transport according to the instructions and the production plan

4.5.2. Planning of short term work requirements including mobility between departments. Authority to change processes that are in his view damaging the quality of work.

4.5.3. Implementation of the production processes and inspection and testing

requirements in accordance with the procedures and instructions of the company

4.5.4. Initiation and implementation of actions to improve the quality of products including improvement of processes and updating instructions on the basis of root cause analysis

4.6 Comptroller

4.6.1. Management of cash flow

4.6.2. Management and Tracking of organizational budgets

4.6.3. Cost accountancy and support for other departments

4.6.4. Management of financial monitoring and wage calculation

4.6.5. Preparation of import and export documents and Tracking of collection

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