

The FDK Group contributes globally to society with technology that uses electric energy efficiently as a Smart Energy Manager by “providing value through One FDK” to customers primarily in the mobility business region. The FDK Group also promotes activities to bring satisfaction to customers and earn trust by flexibly adapting to changes in the environment.



# Supplying Batteries and Electronic Devices Which Contribute to Society Across Multiple Platforms

## Basic Concept

The FDK Group strives to build product development, supply and quality assurance systems in-line with market needs and promote green procurement based on concepts for continually developing and supplying high-quality, safe, environmentally-friendly batteries and electronic devices able to satisfy customers by leveraging proprietary technology to respond to those market needs.

## FDK Group Initiatives

FDK Group continues to provide batteries and electronic devices that use environmentally-friendly materials by complying with environmental laws and regulations to further heighten value as a company cultivating the future. As one part of business, we work to develop products able to provide new added value brought about by using differentiated technology accumulated from our experience up until now.

## “Offering Safety” and “Fulfilling Our Responsibility to the Environment” with Unique Differentiated Technology

FDK is a unique corporate group globally that combines and possesses technologies for batteries and electronic devices.

For example, differentiated technology that utilizes this uniqueness has succeeded in making FDK power storage systems a technology that integrates the advantages of both batteries and electronic devices.

FDK strives in product development with care to always provide environmentally-friendly products in demand by customers as well as the market.

FDK is also actively demonstrating these ingenuities at various exhibitions to generate greater affinity with FDK products.

## Introduction to FDK Customers in FY2017

FDK exhibited at a total of 11 exhibitions in FY2017, including the “MEDTEC” medical device tradeshow, the “TECHNO-FRONTIER 2017” advanced electronic devices and components exhibition, and the BATTERY JAPAN Int’l Rechargeable Battery Expo, which is the world’s largest exhibition for the development and manufacture of secondary batteries and storage batteries. FDK generated appeal for the technical strength of the FDK Group in new products as well as for the products that contribute to solutions of social issues through efforts that included the introduction of technology for batteries and electronic devices as well as products.

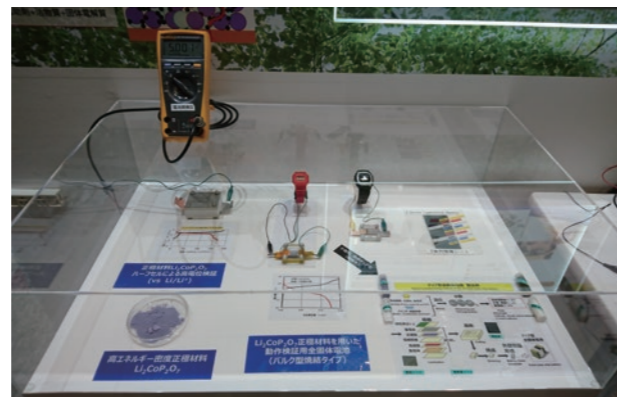


BATTERY JAPAN Int’l Rechargeable Battery Expo

## Product Development for the Next Generation

### ▶ Developing All-Solid Batteries with High energy Density

FDK proceeds the development of All-Solid batteries with greater safety than existing Lithium-ion batteries that primarily use flammable organic materials by preventing leaks because all the material is solid. This contributes to the miniaturization of devices such as the Internet of Things (IoT) as well as wearable and mobile devices!



All-solid batteries (prototype for operational validation)

## FY2017 Targets and Achievements

### Products

- FDK group continues to promote valuable products that conform to market needs in industrial markets with high potential
- FDK Group releases synergy products that make use of proprietary technologies from the Batteries and Electronic Devices Businesses into the industrial market to respond to market needs
- FDK Group develops new magnetic materials having both high performance and high quality and advances its products.
- FDK Group develops power supply products with greater added value by taking advantage of large-scale power supply technologies

### Action

- FDK Group realizes technological development proposals adapted to needs by enhancing market research and rapidly discovering customer and market trends.
- FDK Group reinforces relationships built on trust through sales activities that surpass customer and market expectations.
- FDK Group continually makes improvements based on its Business Continuity Plan (BCP) to recover as quickly as possible in the event various risks manifest.

### Products

#### • Alkaline batteries

FDK Group continues to develop alkaline batteries according to a development schedule for the development of highly reliable (unused leakage, better over discharge leakage performance), high-performance batteries.

#### • Ni-MH batteries

FDK Group has striven to develop and mass produce products suited to the requirements of customers and environmental issues, such as improving performance and recyclability.

#### • System Business

FDK Group has endeavored to and succeed in commercializing products responding to customer requirements based on models adaptable to high voltage and low cost models and continues to improve these products even further.

#### • Lithium batteries

FDK Group made efforts to expand business in thin-type lithium primary batteries and commercialize products for a thin-type lithium secondary battery in addition to developing models for telematics devices.

### • Electronic Devices

FDK Group continues to advance improvements to further enhance product performance in addition to completing development of ferrite, coil devices and multilayer power indicators that contribute to the reduction of customer power consumption.

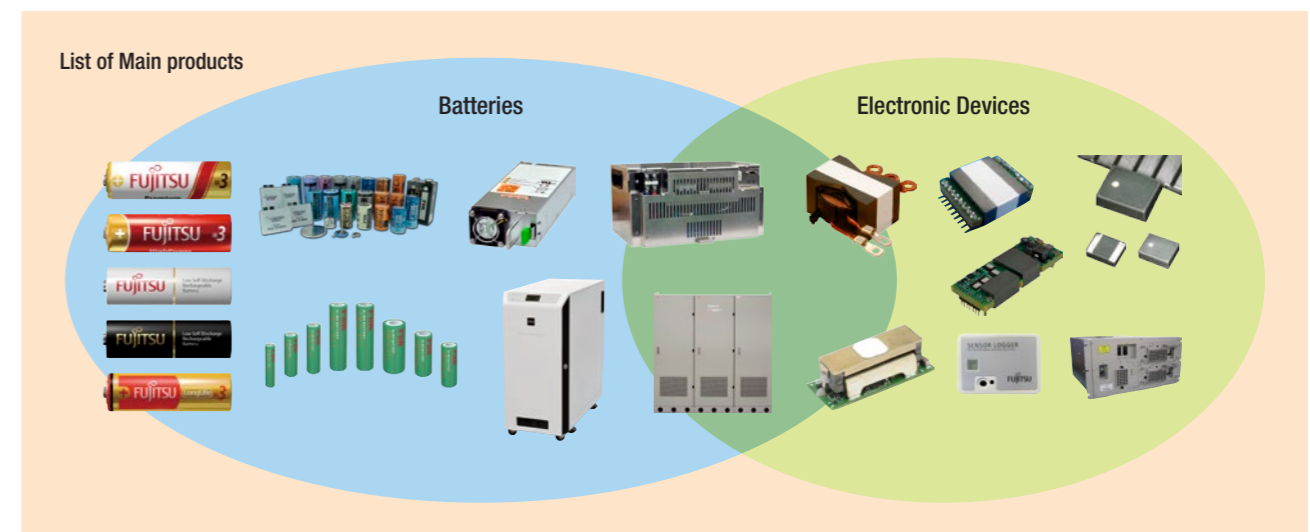
FDK also continues to engage in development of various module products that contribute to lowering power consumption and reducing the number of parts, such as the development of smaller customized new model of DC-DC power modules.

### • Research and Development

FDK Group advanced the development of practical technologies for early product sample shipments in addition to continuing the development of highly safe all-solid batteries and enhancement of cathode material performance for all-solid batteries developed in the last term.

### Action

FDK Group revised the organizational structure to strengthen market research, rapidly identify customer and market trends, and achieve technological development proposals tailored to those needs. FDK Group continued the BCM operations also in this fiscal year built in the previous fiscal year.





## Development Considering Quality and Safety

### 1. FDK Group Quality Policy

#### Slogan

Quality Policy: "We will provide customers with quality they can rely on."

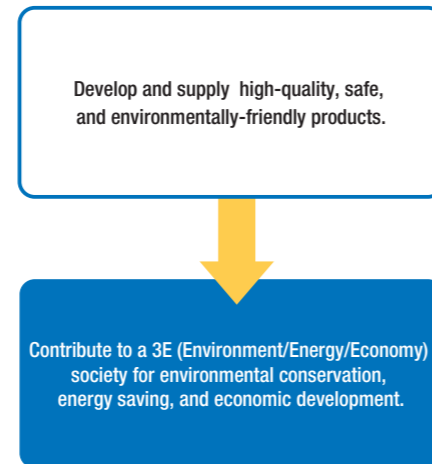
#### Philosophy

FDK Group is based on the concept of quality first and the mission to contribute to realizing 3E (Environment, Energy, Economy) development for society. We do this by providing and developing such batteries and electrical components that are high quality and safety, are eco-friendly, and satisfy the customer.

FDK Group strongly adheres to the principle of never causing such serious quality issues or violations of international regulations as to be held responsible at a corporate level. In order to achieve this, all of FDK Group; including sales, research, planning, development, design, manufacturing and customer service departments shall conduct solid quality management at all stages of their work from the viewpoint of the customer.

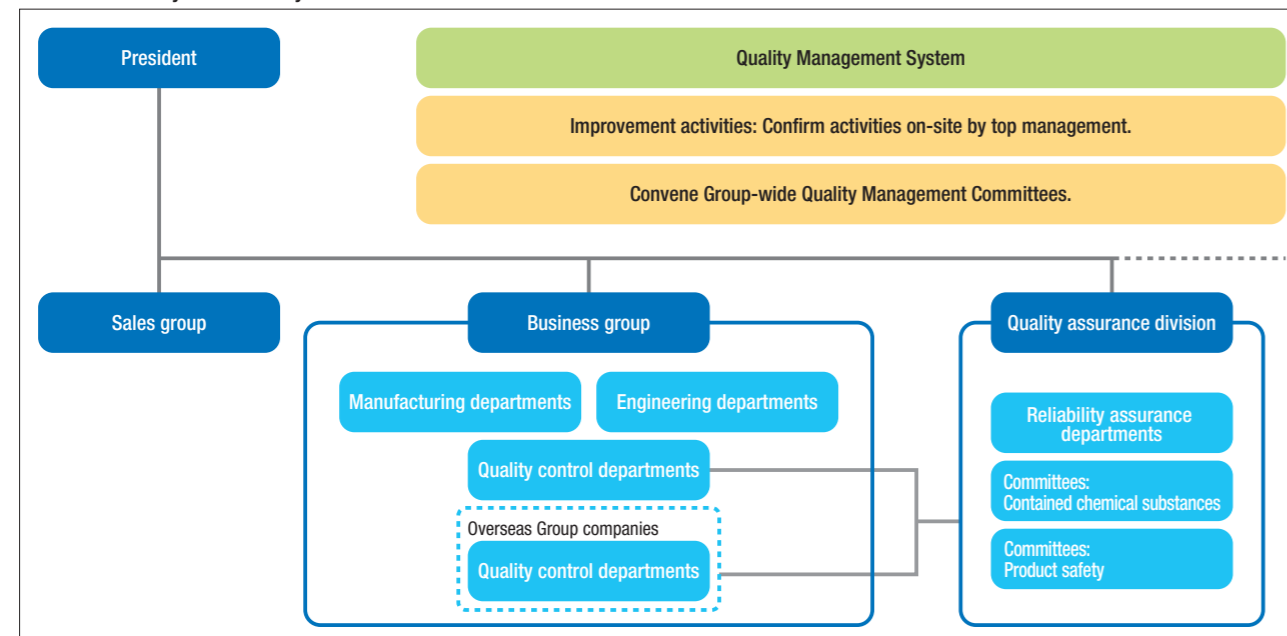
#### Action Guidelines

1. We will ensure that meeting customers' quality expectations is our first priority and will earn customer satisfaction with quick and helpful action.
2. We will strengthen fundamental activities in the development stage that realize the quality, price and delivery period which will satisfy customers and take into consideration environmental conservation to prevent quality issues before they happen in the mass production stage, adhere to delivery schedules and improve environmental conservation.
3. We will continuously strengthen our risk management procedures relating to compliance issues such as product safety and chemical substance content.
4. We will conduct quality management more effectively through continuous improvements to our quality management system.



### 2. Framework and System for Quality Assurance Activities

#### Chart of Quality Assurance System



### 3. Acquisition Status of ISO 9001/IATF 16949

FDK strives for ongoing process improvements based on the Quality Management System (QMS). As of the end of FY2017, all 13 sites, including locations overseas, have acquired the ISO 9001 certification and 5 of those sites have acquired the IATF 16949.

### 4. Quality Assurance Initiatives

#### (1) Quality Assurance System

FDK fosters cooperation between management and various departments and it needs the participation of every employee in activities across every stage of its corporate activities to provide quality products and services that satisfy the function and performance requirements and other needs of customers. Thus, it needs the systems and frameworks to unify the organization for ongoing activities.

FDK has built and operates QMS and will achieve and assure quality able to satisfy customers at each step from product planning to manufacture, shipment and aftercare services.

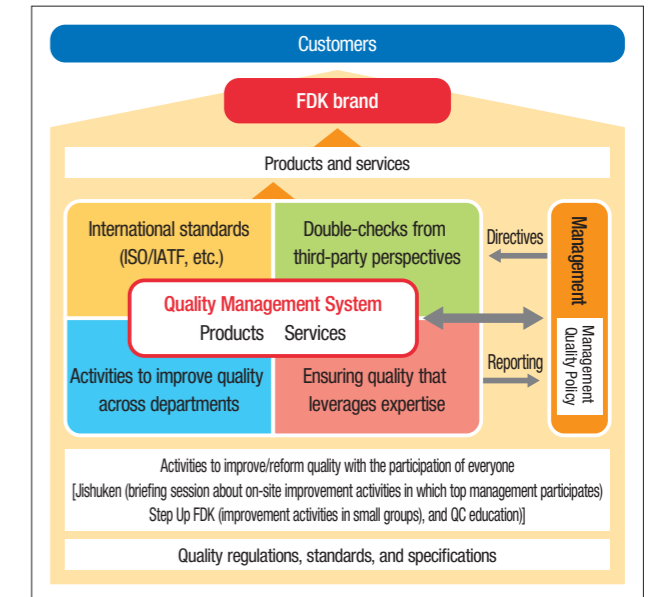
QMS of FDK runs through a PDCA (Plan, Do, Check, Action) management cycle in accordance with ISO and other international standards with the aim of higher quality and ongoing improvements.

#### (2) Promotion System for Quality Assurance

FDK engages in the collaborative activities with "One FDK" set as a goal in the quality assurance activities of each business site, including those overseas across a broad

product line-up. Quality assurance divisions regularly have meetings with all business departments that drive these activities and actively works to share information, formulate quality proposals, escalate responses in the event of problems and quality issues related to compliance, conduct education to nurture human resources, and horizontally share other information such as examples of defects as well as expertise.

### Quality Assurance Framework



## Improvement Processes of Actions to Strengthen Quality Assurance

### 1. Quality Assurance Activities for Products and Services through Objective Points-of-View

FDK conducts reviews from broad standpoints in One FDK that involves not only a single department but all other departments through the entire verification process from planning to mass production in accordance with quality standards and regulations while reinforcing greater objectivity in these assessments to supply quality that provides trust for customers, which is the quality policy of the FDK Group.

### 2. Green Procurement Initiatives

FDK Group contributes to the development of a more sustainable society by conducting business activities that consider the environmental burden and providing environmentally-friendly products.

FDK Group is providing environmentally-friendly products to customers through the use of materials that consider the environment based on the "FDK Group Green Procurement Standards".

#### Chart of Each Quality Assurance Verification Process

