



pdxox J3R180 JCOP4-180K

pdxox J3R180 JCOP4-180K Java Smart Card User Manual

Model: J3R180 JCOP4-180K

1. INTRODUCTION

This manual provides essential instructions for the setup, operation, and maintenance of your pdxox J3R180 JCOP4-180K Java Smart Card. Please read this manual thoroughly before using the product to ensure proper functionality and to maximize its lifespan.

The J3R180 is an advanced Java Smart Card, designed as an upgraded version of the J2A040. It features a coprocessor, enhanced security features, and supports Java 3.0.5, ECC 521 bits, and RSA 4096 bits algorithms. This card offers dual-interface functionality (contact and contactless) and includes a HICO magnetic stripe for increased durability and data retention.

2. PRODUCT FEATURES

- **Upgraded Version:** Replaces J2A040, featuring a coprocessor and enhanced security.
- **High Algorithm Support:** Java 3.0.5, ECC 521 bits, and RSA 4096 bits.
- **Dual Interface:** Supports both contact and contactless (NFC/RFID) operations.
- **HICO Magnetic Stripe:** Durable magnetic stripe for reliable data storage, resistant to external magnetic fields.
- **Compatibility:** Works with standard ID card printers such as DC150i, Fargo HDP5000, and Zebra P330i. Not compatible with inkjet printers.
- **Applications:** Suitable for Medical, Health Management, Social Security cards, VIP cards, Membership cards, and ID-identity recognition.

3. SPECIFICATIONS

Feature	Detail
Model	J3R180 JCOP4-180K

Feature	Detail
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Java Version	Java 3.0.5
Supported Algorithms	ECC 521 bits, RSA 4096 bits
Interface Type	Dual Interface (Contact & Contactless)
Magnetic Stripe	HICO (High Coercivity) 2 Track, 8.4mm
Dimensions	3.35 x 2.17 x 0.55 inches (8.5 x 5.4 x 1.4 cm)
Item Weight	0.634 ounces
Compatible Printers	DC150i, Fargo HDP5000, Zebra P330i (Not for inkjet printers)

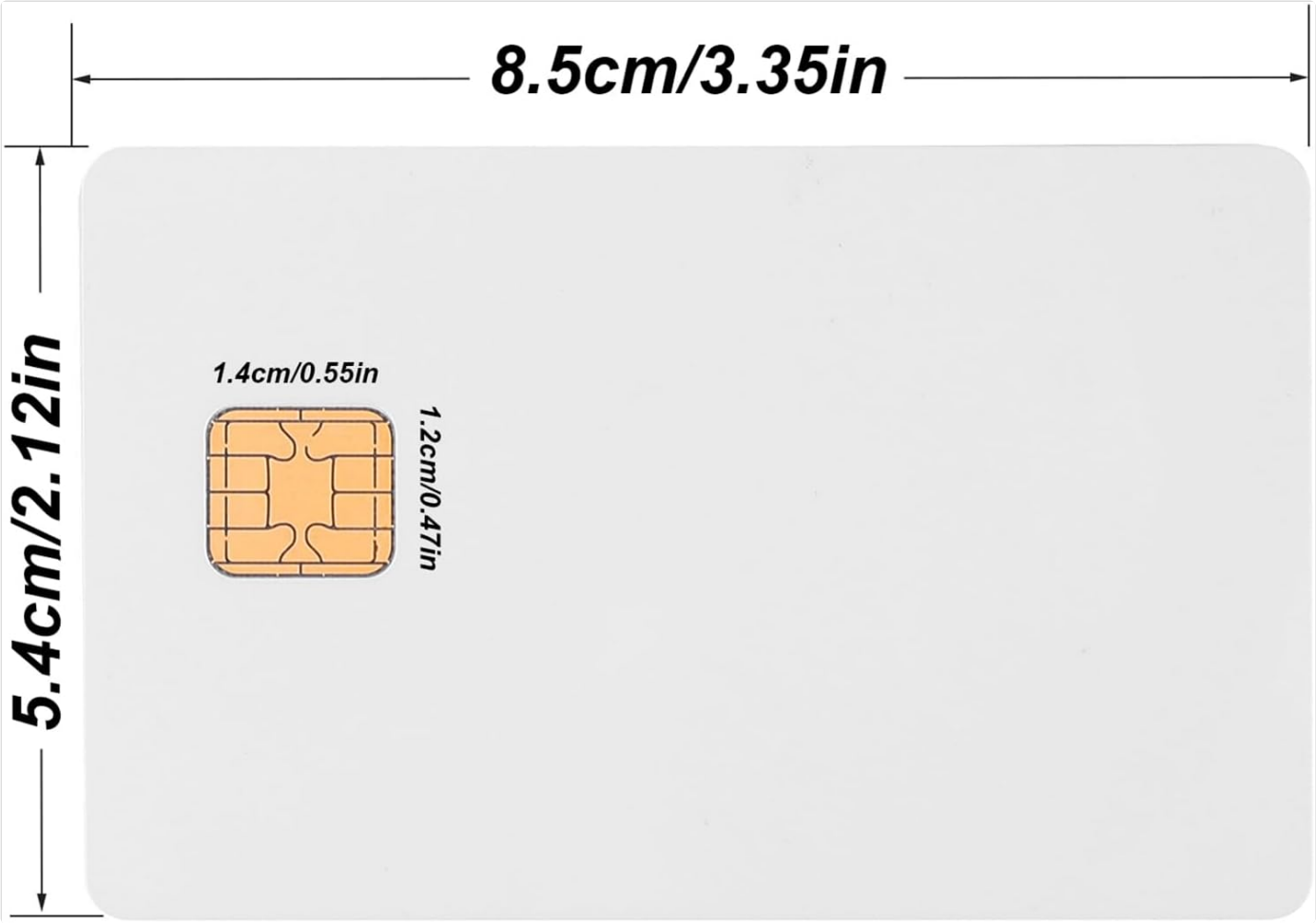


Image: Dimensions of the J3R180 Java Smart Card, showing length 8.5cm/3.35in and width 5.4cm/2.12in, with chip dimensions 1.4cm/0.55in by 1.2cm/0.47in.

4. SETUP AND INITIAL CONFIGURATION

The pdxox J3R180 JCOP4-180K Java Smart Card is typically provided in an "OP_READY" state, meaning it is ready for personalization and applet deployment. Initial setup involves preparing the card for your specific application.

4.1. Required Equipment

- Compatible Smart Card Reader (e.g., Identiv SCR3310v2.0 USB Smart Card Reader)
- Computer with appropriate drivers and software (e.g., GlobalPlatformPro, Java Card Development Kit)
- Application-specific applets or personalization software

4.2. Initializing the Card

1. Insert the J3R180 Smart Card into a compatible smart card reader.
2. Ensure your computer recognizes the card reader and has the necessary drivers installed.
3. Use a GlobalPlatform tool (e.g., GlobalPlatformPro) to connect to the card. The default key for initial access is typically 404142434445464748494A4B4C4D4E4F.
4. Verify the card's status and ATR (Answer To Reset). For J3R180, the ATR typically matches NXP JCOP v2.4.x.
5. If necessary, initialize or clear the card using the GlobalPlatform tool according to your application's requirements.

4.3. Applet Deployment

Once the card is initialized, you can deploy your desired Java Card applets. Refer to the documentation of your specific applets and GlobalPlatform tool for detailed deployment procedures.

5. OPERATION

The J3R180 Smart Card supports both contact and contactless operation, depending on your application and reader capabilities.

5.1. Contact Operation

1. Insert the smart card into a compatible contact smart card reader.
2. Ensure the card is fully seated in the reader.
3. The reader will establish a connection with the card's chip.
4. Interact with the card using your application software.



Image: A hand holding the J3R180 Java Smart Card, inserting it into a contact smart card reader for access control.

5.2. Contactless Operation (NFC/RFID)

1. Hold the smart card near a compatible contactless (NFC/RFID) reader.
2. Ensure the card is within the reader's detection range.
3. The reader will establish a wireless connection with the card.
4. Interact with the card using your application software.



Image: A hand holding the J3R180 Java Smart Card over a contactless reader at an access gate, demonstrating NFC/RFID functionality.

5.3. Magnetic Stripe Usage

1. Swipe the card's HICO magnetic stripe through a compatible magnetic stripe reader.
2. Ensure the stripe is facing the correct direction for the reader.
3. The reader will process the data encoded on the magnetic stripe.

6. MAINTENANCE AND CARE

- **Cleaning:** Keep the card's surface, especially the chip contacts and magnetic stripe, clean and free from dust and debris. Use a soft, dry cloth for cleaning. Avoid abrasive materials or harsh chemicals.
- **Storage:** Store the card in a protective sleeve or wallet to prevent scratches and damage. Avoid exposing the card to extreme temperatures, direct sunlight, or strong magnetic fields.
- **Handling:** Handle the card by its edges to avoid touching the chip contacts or magnetic stripe directly. Do not bend

or flex the card excessively.

- **Magnetic Stripe Durability:** The HICO magnetic stripe is designed for durability, but prolonged exposure to strong magnetic fields can still degrade data.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Card not recognized by reader	Incorrect insertion (contact) Card not within range (contactless) Dirty chip contacts Reader driver issues Incompatible reader	Ensure card is fully and correctly inserted. Move card closer to the contactless reader. Clean chip contacts with a soft, dry cloth. Reinstall or update card reader drivers. Verify reader compatibility with JCOP cards.
Applet deployment failure	Incorrect GlobalPlatform key Card not in "OP_READY" state Applet compatibility issues Insufficient card memory	Confirm the correct default GlobalPlatform key (404142434445464748494A4B4C4D4E4F). Check card status using GlobalPlatform tool; initialize if necessary. Ensure applet is compatible with Java Card 3.0.5 and card resources. Verify available memory before deployment.
Magnetic stripe data corruption	Exposure to strong magnetic fields Physical damage to stripe Improper swiping	Store card away from magnets. Inspect stripe for visible damage. Ensure correct and consistent swiping motion. Re-encode data if possible.

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official pdxox website or contact your point of purchase. Keep your purchase receipt as proof of purchase.

Manufacturer: pdxox

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