

Securing Chip and PIN Devices Procedures

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1. Definitions

Payment Cards	Credit and debit cards.
PCI DSS	Payment Card Industry Data Security Standards - PCI DSS is a worldwide security standard assembled by the Payment Card Industry Security Standards Council https://www.pcisecuritystandards.org/merchants/index.php
PDQ	Process Data Quickly (commonly known as chip & PIN device).
PED	PIN Entry Device (commonly known as chip & PIN device).
PSP	Payment Service Provider – provides merchants (King's) with the functionality to accept card payments online.

2. Purpose & Scope

- 2.1 This procedure relates to all Chip and PIN devices used by King's staff including contractors or used on King's premises.
- 2.2 The intent of this procedure is to secure Chip and PIN devices from malicious tamper and/or malicious replacement with an already tampered device.
- 2.3 We need to secure all of Chip and PIN devices to maintain PCI DSS compliance at King's.
- 2.4 Devices are also known as PDQs (Process Data Quickly) and PEDs (PIN Entry Devices). There are pictures of the various devices in use at King's in the appendix of this document.
- 2.5 Roles and responsibilities for performing activities in the Securing Chip & PIN Devices in procedures must be documented, assigned, and understood.

3. Maintain an Inventory of Chip and PIN devices

- 3.1 Each department is to maintain an inventory list of Chip and PIN devices including the following information:
 - a. Device brand Normally Ingenico, Pax or Zettle
 - b. Device model i.e. Tetra Move 5000, Pax Q25, Pax A920 PRO
 - c. Supplier i.e. Elavon, Uniware/Optomany, Zettle
 - d. Device serial number Can be found on the sticker on the bottom of the device, next to
 - the Model name and number
 - e. Serial number of 'old' device If applicable
 - f. Device location i.e. building name and room where applicable
 - g. Department i.e. King's Sport, King's Food etc.
 - h. Date received ddmmyyyy format
 - i. Status In stock, Returned to supplier
 - j. Comment Highlight any issues



- 3.2 Whenever a replacement or new additional device arrives or a device is returned, the inventory list must be updated, by latest, the next working day.
- 3.3 Spare devices or devices otherwise not in use, need to be stored under lock and key to prevent unauthorised access or removal. The keys to the locked cabinet or safe need to be restricted to a regularly reviewed list of authorised individuals only. Devices should be returned if they are no longer needed (See Section 6. Return of Chip and PIN devices). Importantly, spare or currently unused devices must be included in and remain registered in your inventory list at all times.
- 3.4 Physically inspect any devices before deploying them for use from secure storage.
- 3.5 There needs to be an annual inventory audit of all of the King's chip and PIN devices, completed on the same day of the year to ensure that all of the devices are accounted for and that there is a match of the serial numbers documented in the inventory.
- 3.6 If a device is found to be missing, the following steps need to take place :
 - a. Investigate the last known location of the device and if possible the last known use.
 - b. If following the investigation, the device cannot be found, contact the device owner to inform them the device is missing, confirming with them the serial number and make/model of the device
 - i. Elavon contact details:

Phone 0345 850 0195 (Option 1)

ii. Uniware contact details:

0330 202 1601

iii. Zettle contact details:

020 3984 8464

- c. Work with the device owner and the Finance, Head of Income Services to verify if cardholder data has been compromised.
- d. If it is suspected that cardholder data has been compromised or a device displays signs of being tampered with, missing, swapped or any other unexpected or suspicious behaviour this must be reported to the IT Service Desk:

Email: <u>88888@kcl.ac.uk</u> Phone: 020 7848 8888

Clearly requesting that the ticket raised should be referred to the IT Cyber Security team in the first instance.

4. Quarterly Security Checks of Chip and PIN devices

4.1 Quarterly checks to be completed by each department who have Chip and PIN devices that they are responsible for.



- 4.2 Each department is to complete a quarterly security check of each Chip and PIN device, with the details of the inspection to be formally logged including the following information (see Appendix A):
 - a. Device brand Normally Ingenico, Pax or Zettle
 - b. Device model i.e. Tetra Move 5000, Pax Q25, Pax A920 PRO
 - c. Supplier i.e. Elavon, Uniware/Optomany, Zettle
 - d. Device serial number Can be found on the sticker on the bottom of the device, next to
 - the Model name and number
 - e. Device Location i.e. building name and room where applicable
 - f. Date received ddmmyyyy format
 - g. Date(s) inspected ddmmyyyy format
 - h. Name of Person Name of person who completed inspection
 - i. Department i.e. King's Sports, King's Food etc.
 - j. Comment Highlight any issues
- 4.3 The device security check will be focussing on signs of them having been tampered with or suspected of being tampered with, including:
 - a. Holes drilled in the device that shouldn't be there or the addition of labels/stickers or other covering materials that could be used to mask damage of the device
 - b. Wires and/or devices that are attached to the Chip and PIN device that shouldn't be there
 - c. Missing screws or screws with damaged heads
 - d. Incorrect keyboard overlays
 - e. Device misbehaving abnormally such as a high number of declines
 - f. Difficulty inserting a Chip and PIN card into the card slot
 - g. A device serial number that is different from what it should be in the inventory (upon receipt of a device, the serial number needs to be logged)
 - h. Damaged/altered tamper seals or cracks on the body of the device
 - i. Device is displaying the full card number on either the customer or merchant receipts
- 4.4 If you notice any one of these issues or anything else out of the ordinary, stop using the device immediately and disconnect it from the Till or network cable, but do not power the device down. Immediately contact the IT Service Desk and explain your concern:

Email: 88888@kcl.ac.uk

Phone: 020 7848 8888

Clearly requesting that the ticket raised should be referred to the IT Cyber Security team in the first instance.

- 4.5 All quarterly device security checks need to be completed on the first Tuesday of February, May, August and November and be retained for at least 6 months for audit purposes.
- 4.6 Upon completion of the quarterly device security check, the control sheet for that quarter needs to be proactively sent to <u>PCI-Confirmations@kcl.ac.uk</u>.



4.7 The device's default admin PIN / password must be changed, as these default passwords become widely known.

5. Procedure for Delivery of a Chip and PIN device

- 5.1 All visiting repair technicians or couriers who pick-up an existing device and/or deliver a new device, need to sign in with their name and company information. The sign-in register also needs to include tracking of the serial numbers of any devices that are installed, removed and/or replaced. This register needs to be retained for at least 6 months for audit purposes.
- 5.2 The identity of technician / courier needs to be validated, with photo ID and only representatives from the following companies are allowed to deliver, replace, troubleshoot or pick-up a Chip and PIN device:

Elavon devices:	Contact phone number for confirming the delivery person if in doubt:
	0345 850 0195 (Option 1)
	<u>queries@elavon.com</u>
Uniware devices:	Contact phone number for confirming the delivery person if in doubt:
	0330 202 1601
	helpdesk@uniware.co.uk
Zettle devices:	Sent by registered mail
	Contact phone number for confirming the delivery if in doubt:
	020 3984 8464
	www.zettle.com/gb/help/contact

- 5.3 Each department is to maintain a sign in register including the following fields:
 - a. Date
 - b. Time of arrival
 - c. Name of courier / technician
 - d. Company
 - e. Signature of courier / technician
 - f. Serial number of new / replacement device
 - g. Serial number of old / replaced device (if applicable)
 - h. Comment
- 5.4 Ensure that the serial number of the device matches the serial number on the box that the device arrived in.
- 5.5 At no stage will a courier or technician perform an onsite repair of your Chip and PIN device.
- 5.6 Do not change or attempt to change device configurations or settings, including:
 - Attempting to alter security configurations or authentication controls.
 - Physically opening the device.
 - Attempting to install applications on to the device.
 - Attempting to enable any device interfaces or data capture mechanisms that were disabled on the device.



6. Return of Chip and PIN devices

- 6.1 The Elavon Chip and PIN devices that are either no longer required or are no longer working (including where the device is flashing a tamper warning message), need to be returned to the King's Finance, Head of Income Services, who will then return the devices to Elavon.
- 6.2 The Uniware Chip and PIN devices that are either no longer required or are no longer working, need to be arranged to be returned to Uniware, 84/85 Riverside 3, Sir Thomas Longley Road, Rochester, Kent, ME2 4BH.
- 6.3 The Zettle devices that are either no longer required or are no longer working, need to be arranged to be returned to: Power Body Nutrition Ltd, c/o Zettle, Department, Unit 11 Chessingham Park, Common Road, Dunnington, York, YO19 5SE, United Kingdom
- 6.4 A chain of custody for returned devices is not required to maintain PCI DSS compliance.

7. Other Security concerns and Training

- 7.1 Any suspicious behaviour around Chip and PIN devices needs to be reported, such as attempts by unknown persons to unplug or open or take away / substitute a device, needs to be referred to the IT Service Desk as per section 4.4.
- 7.2 Training to be provided to all King's staff using Chip and PIN devices on the following:
 - a. How to verify third parties who delivering a new or replacement device;
 - b. How to check a device for any signs of tampering;
 - c. To being aware of suspicious behaviour around devices; and
 - d. How to report signs of tampering and/or suspicious behaviour to the IT service team.
- 7.3 If unsure of anything in this section, you should send an email to <u>PCI-Questions@kcl.ac.uk</u> and someone will be in contact with you to discuss your question further.
- 7.4 This procedures document to be read in conjunction with the <u>Card Payments Security Policy</u> and the <u>Card Payments Security Procedures</u> document.

Appendix A: Reports



CHIP & PIN Device Inventory Management - Quarterly Security Checks

#
Device Brand
Device Model
Supplier
Device Serial Number
Device Location
Date Received
Date Inspected
completed inspection
Department
Comment

1
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Upon completion, form to be emailed to: <u>PCI-Confirmations@kcl.ac.uk</u>

Sign-in Register for delivery of a Chip & PIN device King's Department:

Date Time of Arrival Name of courier / technician Company Signature Device Serial Number Serial # of 'OLD' Device Comment



Appendix B: Instructions for physically inspecting Chip and PIN devices and preventing skimming of card details

How to inspect a device:

Physical inspections can be performed by visually reviewing all surfaces of the device and comparing them to pictures contained in this document.

What to look for while inspecting a device:

Each device needs to be inspected to ensure that there are no:

- Holes drilled in the device that shouldn't be there or unusual labels/stickers or other covering materials that could be used to mask damage to the device
- Wires and/or other devices attached to a Chip and PIN device that shouldn't be there
- Missing screws or screws with damaged heads
- Incorrect keyboard overlays
- Device misbehaving abnormally such as a high number of declines
- Difficulty inserting a Chip and PIN card into the card slot
- A device serial number that is different from what it should be
 - The device serial number will be in the inventory and should match the serial number on the device
 - When the device is first received, the serial number should match the serial number on the box or bag which the device is delivered in
- Damaged/altered tamper seals or cracks on the body of the device
- Device is displaying the full card number on either the customer or merchant receipts



Photos for Optomany Pax Q25 Chip and PIN device:

Front



Back



Right side



Left side





Bottom

-



Photos for Optomany Pax A920 PRO Chip and PIN device:

Front

Back





Тор



Right side

Left side





Тор



Bottom





Photos for Ingenico Tetra Move5000 series Chip and PIN device:

Front

Ingenico

Back



Right side



Left side





Bottom





Тор

Photos for Payter Chip and PIN device:





Photos for Zettle (formerly iZettle) Chip and PIN device:

Front



Left side





Back

Right side

