



UK
FINANCE

GUIDE FOR RETAILERS:

Accepting contactless and higher value contactless payments

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CONTENTS

1.	Introduction	3	3.	Next Steps	9
1.1	Who should read this document?	3	3.1	Not currently accepting card payments?	9
1.2	What is contactless technology?	3	3.2	Already accepting card payments?	9
1.3	Contactless devices	3	3.3	Terminal placement	9
1.4	How does contactless technology work?	3	3.4	Contactless signage	9
1.5	What are higher value contactless payments?	3	3.5	Customer education and marketing	9
2.	Best Customer Experience	4	4.	Staff Training	10
2.1	Messages for the customer	4	4.1	Addressing barriers to use	10
2.2	Best practice	4	4.1.1	Security concerns	10
2.2.1	Choosing the device	4	4.1.2	Prefer chip & PIN over contactless	10
2.2.2	Choosing the application	4	4.1.3	Lack of recognition of contactless	10
2.2.3	Customer verification	4	4.2	Staff FAQs	10
2.3.4	Fallback to chip & PIN	5			
2.2.5	Processing the payment	5	5.	Benefits of Contactless	12
2.2.6	Receipts	6	5.1	Benefits	12
2.2.7	Refunds	6	5.1.1	Improved customer experience	12
2.2.8	Adding a tip	6	5.1.2	Cost reduction	12
2.3	Troubleshooting	6	5.1.3	Risk reduction	13
2.3.1	Not a contactless-enabled customer device	6			
2.3.2	Customer verification	7			
2.3.3	Presenting only one card or device ('card clash')	7			
2.3.4	Touching the contactless card or device	7			
2.3.5	Low or no battery power	7			
2.3.6	Terminal position	7			
2.3.7	Declines	8			
2.3.9	Referrals	8			
2.3.10	Other	8			

1. INTRODUCTION

1.1 Who should read this document?

This document is for retailers who are considering accepting contactless payments, or for retailers who already accept contactless payments but want more information about new contactless devices and higher value contactless payments.

Contactless is a mainstream way of paying, and is available on cards, mobile and wearable devices. The underlying technology for all of these contactless payment devices is the same, and offers a consistent customer experience of fast, easy and secure payment.

1.2 What is contactless technology?

Contactless is a way for your customers to pay for purchases using a card or device without having to enter their PIN. For contactless cards, the limit is £100.¹ It is designed specifically to provide a quick and convenient way to pay in any environment where the speed of transaction is essential for customers. Retailers who accept contactless payments will display the Contactless Symbol²:



Cards that are contactless enabled will have the Contactless Indicator³ on the front or back of the card:



If you don't currently accept card payments, you will need to speak to a company that processes card transactions, known as a card acquirer.

1.3 Contactless devices

Contactless technology exists in a range of different devices including:

- pre-paid, debit and credit cards
- stickers
- key fobs
- wearable devices, such as watches and wristbands
- mobile devices, such as smartphones and tablets

A contactless-enabled terminal will be able to accept payments from all of these contactless devices. Contactless devices apart from cards will not necessarily have a contactless symbol on them.

1.4 How does contactless technology work?

The contactless device contains an antenna so that when it is used at a contactless reader it securely transmits purchase information to and from the contactless reader.

To pay with contactless:

- The customer touches their card or device against the terminal. It has to be held within 4cm of the terminal to work.
- The terminal will confirm that the payment has been accepted.

1.5 What are higher value contactless payments?

A higher value contactless payment is any transaction that exceeds the contactless limit of £100. Higher value payments operate in a slightly different way to other contactless payments, and must include customer verification. For the UK market this means that they can only be made using a device that supports a method of customer authentication, for example a smartphone. This authentication process will take place on the customer device and may be through the use of a passcode, or a form of biometric identifier such as a fingerprint or Face ID.

1. Please note that the contactless limit increased from £45 to £100 on 15 October 2021.

2. See footnote 1.

3. This is an EMVCo mark. EMVCo exists to facilitate worldwide interoperability and acceptance of secure payment transactions. For advice on the use of the marks see https://www.emvco.com/best_practices.aspx?id=117.

2. BEST CUSTOMER EXPERIENCE

This section sets out the best practice for retailers to follow in accepting contactless payments. This includes the main messages for customers when they are considering using contactless; the steps that the customer and the retailer will need to follow to complete the payment process; and troubleshooting tips.

2.1 Messages for the customer

It's fast

- Touch your contactless card or device against the reader to pay in seconds.

It's easy

- You can easily track your purchases on your statement or on your banking app.

It's secure

- Contactless payments are safe and highly secure, with the same protection as chip & PIN payments. For added protection from fraud, if you are paying by card you will occasionally be asked to insert the card and enter your PIN. If your card or device is lost or stolen, so long as you report it to your bank as soon as possible in accordance with your bank's terms, you won't have to pay for any fraudulent use.

2.2 Best practice

2.2.1 Choosing the device

If the customer is paying with a contactless card, they should look to see if it has the Contactless Indicator on it.

If the customer is paying with a contactless card or wearable like a wristband, no steps are required to activate the device.

If they have a mobile device or a wearable device like a watch they will need to check whether it is set up for contactless payments. They may also need to take the application selection and verification steps set out in below.

2.2.2 Choosing the application

Smartphones and other consumer devices may be able to store multiple card applications. Only one of these applications can be open at any time.

It is recommended that customers select a payment application to be 'always on' and that it be activated even when the device is turned off or the power is too low to drive the keyboard and screen.

To help avoid delays, retailers may need to make clear to their customers which of the card types they accept so that the correct application can be selected by the customer before approaching the terminal. Unlike a contactless card, a mobile device will not have the card scheme logo printed on it, although when the customer chooses an application to pay with, the card scheme logo may appear on the screen.



2.2.3 Customer authentication

Some mobile device applications require the verification step for all transactions, including those of £100 and under. Others may allow the customer to choose whether to verify themselves for all transactions. All higher value contactless payments (over £100) must be supported by customer verification.

Depending on the device and/or the application requirements the verification method can be either a passcode (Mobile Code for Visa, Mobile PIN for Mastercard, Passcode for American Express) or a biometric identifier. Both will be carried out on the customer's device rather than through the retailer's PIN Entry Device⁴.

- Passcodes – these should be from 4 to 12 digits, and may be subject to the same controls as a standard bank card PIN. The customer may only have a limited number of attempts to enter the code before the application is locked. Messages related to the status of the code will only appear on the customer's device and may be managed direct with the cardholder's issuing bank.
- Biometrics – where a biometric reader is available on the customer's device, the payment application may be enabled by its use.

In all cases the mobile device will provide confirmation to the contactless reader that the verification has been successful.

2.2.4 Fallback to chip & PIN

For contactless cards, the customer may occasionally be asked by the terminal to insert their contactless card and enter their PIN or sign. You can reassure the customer that this is just a security check and that they will have no problem using contactless next time. Some banks have allowed their customers to set their own contactless limit or turn off contactless transactions.

For transactions conducted with a mobile device there may be no way to fallback to the card details so an alternative payment method should be sought.

2.2.5 Processing the payment

The four step process below shows how you as the retailer, and your customer, should interact with the terminal. The card or device should always stay in the customer's hand (or on their person in the case of wearables), and both you and the customer should follow the terminal prompts. The contactless reader should face the customer. The EMV contactless symbol must be visible before and during the transaction to ensure the consumer is aware of the terminal's contactless capability and where to tap

Step One – Look

Retailer:

1. Select SALE from the device menu
2. Enter the transaction amount in pence on the terminal key pad e.g. for £10.23 enter 1023.
3. Press the green ENTER button. If you make a mistake, simply press the yellow CLEAR button and re-enter the amount.

Customer:

The customer should look to see where the Contactless Symbol is displayed on the terminal. This might be on the terminal screen so that they know the retailer is ready to accept a contactless payment.

You may want to have additional contactless signage (see 3.4) around the terminal or within your shop to show your customers that you accept contactless payments.



Step Two – Touch

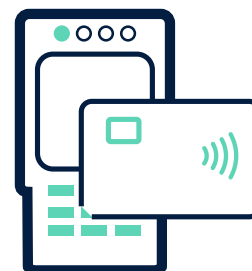
Retailer:

Ask the customer to touch their card or device against the Contactless Symbol which may appear on the terminal screen.



Customer:

The customer is simply asked to touch their contactless card or device against the reader to make their contactless payment.



4. **Currently the UK does not support online PIN at the point of sale, if a retailer wishes to accept card based higher value contactless payments they will need to implement a POS solution that allows support for online PIN. You may wish to speak to your acquirer about this option.**

If the transaction exceeds the contactless limit of £100, or where the customer has elected to authenticate themselves to the device, the terminal will check that this has been done. If the customer has not completed this step the terminal will prompt them to enter the passcode (or use the biometric identifier) and re-touch the device on the reader. Where this occurs, the retailer should simply follow the prompts on the screen.

Step Three – Processing

Retailer:

No action to take.

Customer:

The customer should keep their card or device against the reader while the payment is processing (usually only a few seconds). The terminal should beep or show a series of green lights to show that the payment has been processed.

Contactless transactions with cards and devices will require online authorisation; this may result in a slight pause in the transaction process. Under normal circumstances this will be invisible to the customer and will not interfere with the transaction process.



Step Four – Approved

Retailer:

The terminal will approve the transaction. The reader lights return to the ready state of a single green flashing light for your next transaction.

Customer:

The customer will see the message displayed that shows the payment has been approved.



2.2.6 Receipts

The terminal will automatically print a retailer receipt for your records.

For transactions of £100 and under, a receipt will not print automatically for the customer (although you can set up your terminals to do so).

A receipt must be printed for the customer for all higher value and chip & PIN payments.

To print an additional customer receipt, tear off the retailer copy, press ENTER to return to the ready screen and press the button to print the customer receipt. Note: if your terminal does not give you a receipt option, press the key at the READY prompt. Make sure you do this before the next transaction.

2.2.7 Refunds

Refunds may be processed using contactless cards and devices using the contactless reader to capture the card details.

Where a mobile phone was presented for the original transaction any refund must be completed using the contactless interface. Typically you can use the Device Account Number on the phone to find the purchase and process the return, just like you would with a traditional credit, debit or prepaid card payment.

Although it is not to be encouraged, some mobile devices are able to display an image of the card that will allow a key-entered refund to be carried out.

2.2.8 Adding a tip

You can add a tip to a contactless transaction, but make sure it is added before the device is presented. If the bill with tip comes to more than £100 the transaction will either have to be processed as a higher value contactless payment (if a mobile device or similar), or a chip & PIN transaction (if a card).

2.3 Troubleshooting

2.3.1 Not a contactless-enabled customer device

If the card does not have the Contactless Indicator on it then it cannot be used to make a contactless payment. If your customer is using a mobile phone or another device, they will have to check if they have set it up to make contactless payments.

Ask the customer if they have another contactless device to make the payment or, if this is not available, to make the payment using chip & PIN.

2.3.2 Customer verification

The contactless acceptance process has a built in level of protection to ensure that it is the valid cardholder that is making a contactless payment.

For contactless cards, the customer may occasionally be asked by the terminal to insert their contactless card and enter their PIN or sign. You can reassure the customer that this is just a security check and that they will have no problem using contactless next time.

For mobile devices such as smartphones, customers may have different levels of verification built into their application process which require them to authenticate themselves. Once they have done so, the transaction can still take place contactlessly.

Higher value payments will only be available on devices that allow customers to authenticate themselves.

2.3.3 Presenting only one card or device ('card clash')

If the terminal is unable to communicate with one card or device without interference from another card or device near the terminal then it will be unable to complete a transaction. It is therefore important to check that the customer is presenting only one card or contactless device to the terminal. For example, the customer could be holding their wallet or purse against the card reader with more than one contactless card inside. Or, the customer could have their activated mobile device next to a contactless card. Where this is the case, the terminal will display 'Please Present One Card Only' or a similar message and the transaction will not be allowed to proceed. This is sometimes referred to as 'card clash'.

Ask your customer to choose which card or device they wish to pay with and present this alone to the reader.

2.3.4 Tap the contactless card or device

If the card or device is too far away from the Contactless Symbol on the terminal (where the customer should touch their contactless device) it may not be possible for the terminal to accept the payment. The customer should hold the card or device within 4cm of the contactless symbol.

Each mobile phone will have a different 'sweet spot' where the contactless antenna is at its most effective. Customers may experience difficulties finding the correct way to tap their device against the reader but over time they will become used to their particular device.

2.3.5 Low or no battery power

Some handsets require power to allow contactless transactions to take place. If there is no power in the device then transactions cannot be undertaken and in such cases an alternative payment method should be sought.

In some environments, particularly in transit, it is good advice for consumers to be aware of the impact this may have on their transactions. For example

Transport for London publish specific advice on the subject, warning customers that they may be charged the maximum fare.

2.3.6 Terminal position

Terminals must be positioned so that all customers can easily touch their contactless cards or devices against the terminal.

If there are any metal objects near to the terminal they may interfere with the connection between the device and the terminal, for example a stapler or a pair of scissors. These will need to be moved away from the terminal.



2.3.7 Declines

If a contactless transaction is declined the terminal display will notify the cardholder of the outcome.

For a transaction on a mobile device it is possible for the issuer to send messages relating to the decline decision to the customer's device, directing them to contact the issuer.

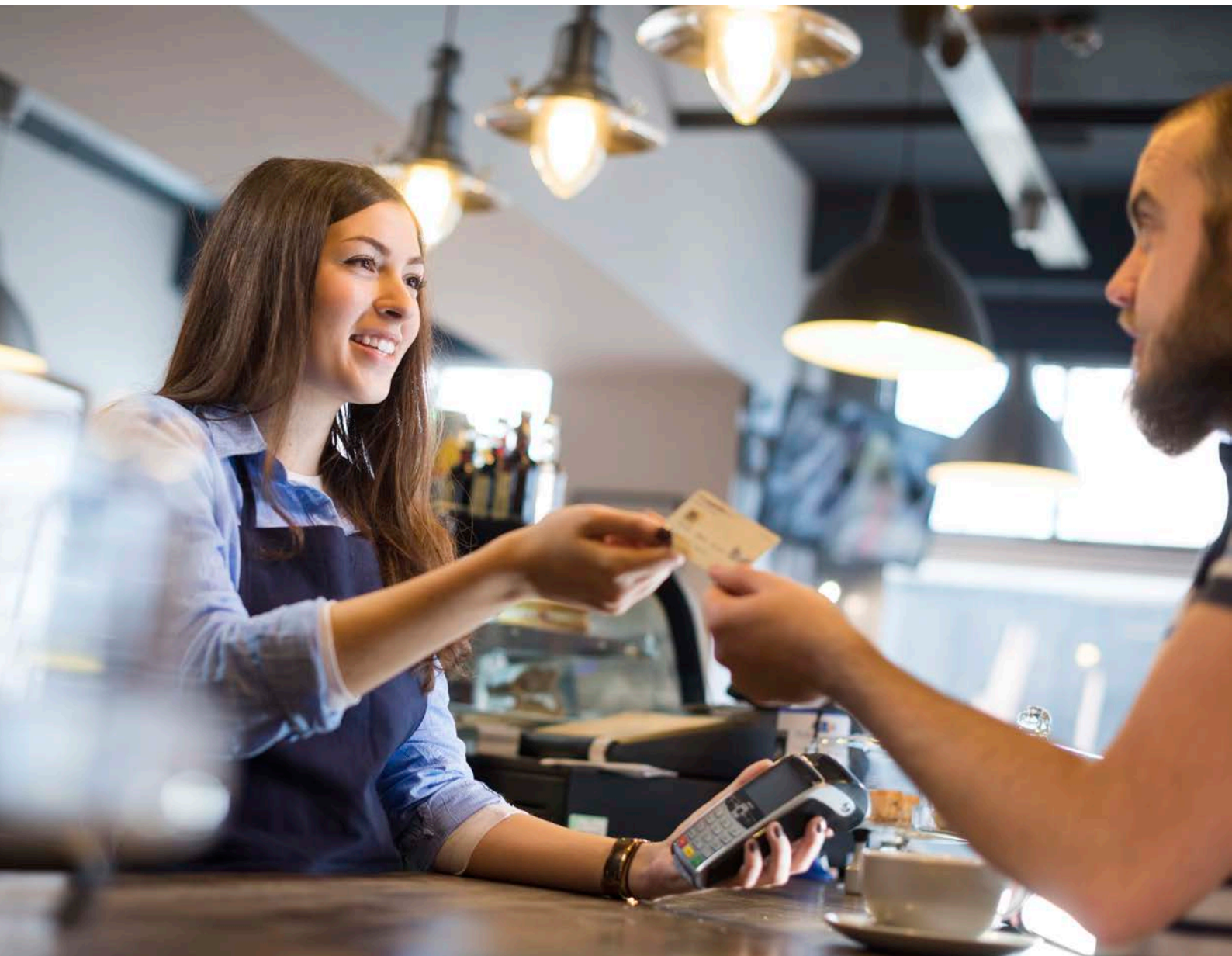
Retailers will never be asked to retain a customer's card or device.

2.3.8 Referrals

From time to time the acquirer may, during the transaction process, require the retailer to make contact with the card issuer before a transaction is completed. Such transactions are not possible with contactless cards or devices and the terminal will treat any responses of this type as a decline.

2.3.9 Other

If the terminal will not process the transaction and it has a Contactless Symbol, it could be because the device's internal antennae is broken or that the card or device is new or has not yet been activated. If this is the case, ask your customer to contact their card issuer and select a chip & PIN card to pay with.



3. NEXT STEPS

This section sets out what you need to do as a retailer to accept card payments; or if you already accept card payments, how to accept contactless payments and higher value contactless payments. It also suggests some ways to encourage customer use of contactless.

3.1 Not currently accepting card payments?

If you don't currently accept card payments, you will need to speak to a company that processes card transactions, known as a card acquirer.

3.2 Already accepting card payments?

The first thing to establish is whether your payment terminal is capable of accepting contactless payments. Look for the Contactless Symbol on the terminal. The Contactless Symbol might be displayed on the terminal screen. If you are unclear about this then either refer to the manual or contact the terminal provider to validate.

If your terminal doesn't accept contactless payments then contact your acquirer/ terminal provider to find out the best way to enable contactless payment acceptance within your business. This is likely to involve either replacing your existing terminal or obtaining an add-on contactless reader to support your existing payment terminal.

A variety of contactless readers and terminals are available. When choosing equipment you should consider the following:

- Select the model which best suits your business needs – this may be an add-on contactless reader, a fully integrated point-of-sale system, a mobile device or an unattended terminal.
- Confirm that the selected reader carries appropriate branding for the card types accepted, and ensure that any overlays on the acceptance zone do not use metallic materials or anything that may affect the reader's performance.
- High-speed authorisation connections are required (e.g. broadband, DSL, leased line or V-Sat).

If you decide to accept higher value contactless payments, your terminals or point of sale (POS) devices must already accept contactless payments and conform to the latest payment scheme specifications⁵. You can discuss this with your acquirer.

It is recommended that a fast receipt printer is used to ensure you and your customer benefit from the unique speed of transaction offered by contactless.

3.3 Terminal placement

To get the best consumer experience it may be necessary for you to re-design or re-configure your checkout points. Contactless readers need to be placed somewhere that is convenient and easy for customers to use.

3.4 Contactless signage

A variety of contactless signage may be available from your acquirer. Signage is helpful as it highlights contactless as an option to customers when they are about to pay and are most receptive to changing their behaviour.

Customer posters: It is best to display customer signage in areas where footfall is highest; an ideal place would be where customers are getting ready to pay.

Staff posters: As some customers may not yet be familiar with contactless payments, staff should be encouraged to be patient and supportive in such cases.

Window stickers: Display where customers are most likely to see them, on the inside of a window facing out, on a glass entrance door for example.

Receipts: It is useful to print signage on receipts as the customer will be reminded about contactless as a payment option when they get home.

3.5 Customer education and marketing

You may wish to run some marketing and advertising campaigns promoting the use of contactless payments in your business.

5. [MasterCard Contactless Reader Specification v3.0 / Visa Contactless Payment Specification v2.1 \(VCP5 2.1\)](#).

4. STAFF TRAINING

This section sets out information you can use to help your staff overcome customer objections, and includes FAQs. It may be useful to keep a staff reference guide by the tills until staff are comfortable with how contactless works.

The best advocates for contactless payments are your own staff. Where they regularly use a contactless card or device for payments in their normal daily lives they can appreciate contactless from a customer's perspective. They will see and feel the considerable benefits that contactless brings to them. If they do not currently have a contactless card or device, try to encourage your staff to ask if their current card issuer can supply them with one.

4.1 Addressing barriers to use

4.1.1 Security concerns

Reassure the customer that contactless is secure. Contactless technology uses secure technology (the same as chip & PIN) so customers can feel confident when using it to pay for items.

There is a maximum amount for a contactless transaction of £100 (if it is a higher value payment the customer will have to verify themselves). The card or device has limits built into it when it is being used for a contactless payment.

This means it can only be used for a certain number of consecutive contactless transactions before the customer is required to perform a chip & PIN transaction.

All contactless payments, as with other card payments, are covered by the issuing bank in the event of fraud, so the customer won't be left out of pocket.

All contactless devices rely on the same underlying, secure transmission technology. On mobile devices the cardholder's payment details are held securely and may also be protected using a process called tokenisation⁶. This substitutes the cardholder's account number for a 'token' value that is only valid for transactions from that device.

4.1.2 Prefer chip & PIN over contactless

Reassure the customer that contactless transactions are secure and offer the same level of protection as if they had performed a chip & PIN transaction.

However, contactless is an option for the customer, and they can use chip & PIN on the same card if they choose to.

4.1.3 Lack of recognition of contactless

Highlight the Contactless Indicator on their card to the customer and prompt them to give contactless a try.



4.2 Staff FAQs

Q1: What if a PIN is requested?

- A.** The terminal will occasionally ask customers to insert their card. When this happens, you should just carry out a normal chip & PIN transaction. Let the customer know they should have no problem using contactless next time.

Q2: What if a customer requests a receipt?

- A.** Contactless receipts are optional (except for higher value payments) but you should provide one if the customer asks. To print an additional customer receipt, tear off the retailer copy, press ENTER to return to the ready screen and press the button to print the customer receipt. Note: if your terminal does not give you a receipt option, press the key at the READY prompt. Make sure you do this before the next transaction.

Q3: Can customers add a tip to a contactless transaction?

- A.** Yes – if your terminal has the capability, but make sure it's added before the device is presented. If the bill comes to more than £100, the transaction will either have to be processed as a higher value contactless payment (if a mobile device or similar), or a chip & PIN transaction (if a card).

Q4: Can I give a refund with the contactless terminal?

- A.** Refunds may be processed through contactless cards and devices by using the contactless reader to capture the card details.

6. Tokenisation is the term used to describe a process by which surrogate values are used to replace the Primary Account Number (PAN) in the payments ecosystem.

Q5: Can I accept contactless cards issued outside the UK?

- A.** Yes – as long as you accept cards from the card payment scheme, you can accept payments from any card with the Contactless Indicator.

Q6: Will I be able to accept new contactless payment devices, such as mobile phones or wearable devices?

- A.** Yes, as long as they have been activated by the customer.

Q7: What happens if a contactless payment is declined?

- A.** The terminal will notify the customer that their payment has been declined. You should then ask the customer to complete their payment using another contactless card or device, or with a chip & PIN card.

Q10. Could someone unknowingly make a transaction as they walk past a reader?

- A.** No. The retailer must have entered the amount for the customer to approve first, and then the card or device has to be held within 4cm of the terminal for a few seconds.

Q11: Is there any chance that payments could be taken twice from a customer's account?

- A.** No. Contactless terminals are only able to make one transaction at a time. As a safeguard, each transaction must be complete or void before another can take place. If two cards/devices or more are presented at the same time, the terminal will recognise that there had been a card clash and no transaction will be processed.

Q12: Could the customer's card details be intercepted during a payment?

- A.** Contactless only works when a card or device is within a few centimetres of the card reader. This makes it virtually impossible for any details to be intercepted while in use. While a contactless card reader can interrogate a card provided it is within 4cm of the card, it will only release the same information that is displayed on the front of the card. A fraudster would find it very difficult to use this information elsewhere, and it couldn't be used to make a cloned card. In the case of fraud, cardholders are protected and have the right to a refund for any unauthorised transaction, as long as the card issuer has been notified.



5. BENEFITS OF CONTACTLESS

Contactless payments can improve customer experience and help reduce your costs. Contactless payments can operate seamlessly alongside your existing terminals and other ways of taking payments, whether by cash, cheque or card. Contactless payments are a good alternative to cash payments.

5.1 Benefits

5.1.1 Improved customer experience

Accepting contactless payments may lead to increased revenue for your business, for the following reasons.

- Faster transactions – contactless technology is the fastest card payment method in the UK. The contactless device simply needs to be touched onto your secure reader to make a contactless payment and, in a few seconds, the payment is complete. For the majority of contactless transactions no verification, receipt or authorisation is required (except for higher value payments).
- Convenience – accepting contactless for small purchases makes life easier for your customers as they do not need to have the correct change or carry cash around. Equally you do not have to spend time counting out and giving them their change or paying cash into the bank.
- Increased throughput – where queues are removed or reduced, more customers can be served.
- Fewer abandoned sales – customers may walk out of your shop because of long queues, so quicker transactions could reduce the number of abandoned sales.
- Increased average transaction value (ATV) – customers may be constrained by the amount of cash they have on them and so may spend more if using their contactless device. In the case of vending machines, the replacement of coin provides the opportunity to sell higher value goods. In addition, where these have previously been limited by coin denominations there is the opportunity for more flexible pricing.
- Uplift in footfall – in certain retail areas, accepting contactless payments has helped retailers become the preferred place for contactless card users – especially at times when they are limited by cash availability.

5.1.2 Cost reduction

Contactless transactions can have cost savings over other types of payment through:

- Improved staff productivity – as more customers make contactless transactions with minimal staff intervention, point-of-sale staff resource requirements could be reduced or reallocated.
- Cash handling – staff will need to spend less time on cash handling/ back-end processing, and a reduced cash float potentially means savings on insurance and fewer trips to the bank.
- Reduced receipt handling - a receipt only needs to be produced for a contactless payment when a customer requests one, or for a higher value payment. Producing fewer receipts can provide cost savings in staff time and also cuts down on terminal failures, which are often caused by receipt paper either running out or causing faults.

5.1.3 Risk reduction

Contactless devices come with the same security and guarantee protection as other card payments. For added protection, from time to time the customer may be asked to enter their PIN to verify they are the genuine cardholder. If the customer's card or device is lost or stolen, they are protected against fraud loss so long as they report it to their bank as soon as possible, and in accordance with their card issuer's terms.

As with all card payments, the risks to the retailer are lower than other payment types for a number of reasons:

- Existence of an audit trail – a transaction record is available and (subject to terminal configuration) could include a line detail of the item sold.
- Assured payment – provided the contactless transaction is processed correctly, there are very limited chargeback rights, and none for lost and stolen cards.
- Risk managed by the card/device – for the majority of transactions, the decision-making process will be between the card or device and the terminal. No other processes (such as Stand-In Processing) will intervene.



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