

# HOW TO OPTIMIZE THE CONSUMER CONTACTLESS EXPERIENCE?

## THE PERFECT TAP



**CONTACTLESS PAYMENTS COULD BE 50-60%  
FASTER THAN PAYING WITH CASH.\***

By accepting contactless payments, merchants open the door to the many benefits that contactless products offer and the incremental business it may generate. Contactless products are the ideal tools to enable cash displacement and do away with all the disadvantages that cash handling entails: cost, insecurity, inconvenience and slow business. As well, accepting contactless payments prepares the way for mobile device payments.

The value proposition of contactless products is all about offering consumers with a fast and convenient payment experience:

- tapping the card leaves the consumer in control and shortens the terminal interaction.
- no cardholder verification (below a certain country limit) shortens the payment process.

It is important that the deployment of contactless technology at the POS supports and maintains this value proposition and that it ensures the best possible user experience. This brochure will summarize what MasterCard views as best practices and requirements.

\* Source: [Transnational Bankcard](#)



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“How do I know where I can use my contactless card?”



EMV Contactless Indicator



EMV Contactless Symbol

## 1. Where can I Tap?

Even an experienced consumer may not be able to recognize a contactless terminal/reader. Merchants should provide adequate signage material to indicate that contactless payments are accepted.

The EMV Contactless Indicator is intended only for use at the point-of-sale on specific compliant terminals, and within associated marketing collateral directing consumers where to make contactless payments.

### COMMUNICATING CONTACTLESS ACCEPTANCE

There are various practices that need to be applied to guide a consumer towards a contactless payment:

- Store/merchant branding and signage must alert the consumer that the merchant accepts contactless payments. This information is even critical for those using mobile devices who may not have another device to “fall back” on.
- POI (Point of Interaction) environments must make it clear that the environment accepts contactless payment devices.
- It is recommended that a merchant enables all of its POI environments with contactless acceptance.
- The terminal/reader should display the EMV Contactless Symbol in a clear, obvious manner. The Contactless Symbol must be placed at the best visual location for the consumer. The symbol must be displayed exactly where the customer must tap their contactless device.



\* at the center of terminal operating volume.

## 2. Tapping Convenience

The payment process must not discriminate one payment interface against another nor the steps required to achieve successful completion of the transaction.

Whether being serviced by a merchant representative or during self-service, the payment process should not require **extra buttons** to be pushed:

**"I had to request to pay contactless for the terminal to be activated"**



- The terminal message should not require consumer to dip card first.
- Whenever an electronic cash register or till is used to total the amount of the purchase, this same amount should be communicated to the terminal/reader without re-typing the amount onto the terminal/reader.
- The POI terminal/reader should always be activated upon request for payment.
- The POI terminal/reader must activate all interfaces, including contactless.
- The terminal reader will be expecting to read a contactless device. When it does, it will initiate a contactless transaction.

"I had to hand over my card for payment..... I would not want to hand over my mobile phone"

### 3. Consumer Control

At the moment that the merchant or merchant representative totals the sum of the purchased goods and services to be paid, it is up to the consumer to determine how and what means will be used to complete the payment.

Handing over the card to the merchant representative comes from a time when the card had to be manipulated for reading or where the signature required verification. Machines that require only signature verification are becoming rare.

- The POI environment should be designed and constructed in a way that allows the consumer control of card and terminal.
- The terminal/reader must make it very clear to the merchant representative when the payment device signature should be verified.
- Merchant representatives must be educated and advised that it is not necessary for the consumer to hand over a payment card in order to perform the transaction.



## 4. Consistent, Clear Terminal Communication

Both the consumer and merchant representative must have a clear view and understanding, before, during, and at completion of the payment process. The communication information and instructions must be transparent, accurate, and most importantly, timely.

“POS screen was not displaying any message: only the lights switched on once card was presented”



**Terminal/readers** operate in many different environments. In order for consumers to understand the contactless payment process, it is critical for the terminal/reader messages to be consistent across the different environments within they operate.

- The EMV Contactless Symbol shall be clearly visible to the consumer: preferably on a fixed surface. If part of the display, the size must be sufficient for visibility and remain so until the payment device has been read: 5 cm diameter is recommended.  
**Message:** AMOUNT... TAP CARD
- Upon activation, the transaction amount must be displayed.  
**Message:** CARD READ OK
- When the payment device has been read successfully, the four indicators shall be lit and an audible sound must be heard. The latter shall be adapted to (the sound levels of) the environment within which it has been installed.  
**Message:** AUTHORIZING... PLEASE WAIT
- Specifically for terminal/readers that have the landing zone on the display, it is recommended that the transaction completion message, either successful or not, be displayed for at least 5 seconds to ensure it is visible to the consumer.  
**Message:** COMPLETION MESSAGE... APPROVED



**“Reader and self-service terminal display different messages”**

## 5. Self Scan Environment

Self Scan Environments typically operate with a check out display for the consumer to complete checkout process.

During the payment process there are a number of steps when the consumer will need to focus on the terminal/reader. The consumer needs to be guided in a clear and timely manner:

- In this situation, where there is no merchant representative assisting with the contactless transaction, the terminal/reader should guide the consumer clearly thru the transaction steps.
- The checkout display could invite the consumer to tap the card.
- As soon as the terminal/reader has been activated, the checkout display should guide the consumer to follow the instructions on the terminal/reader.
- The checkout display should not interfere within the payment process until the transaction is being completed, whether successful or not.
- If the transaction is not successful the terminal/reader should not require the consumer to start all over again but start from the beginning of the payment process.



## 6. Tap & really Go!

The contactless product value proposition must be supported and adhered to by all components in the chain. Speed of transacting is extremely important and once the payment device has been read, the transaction should not take more than 3-4 seconds to complete.

"Till showed 'Authorizing' for nearly 5 seconds after Contactless reader display showed 'Approved'"



Many payment devices are issued with counters and balances and these are managed on the issuer host environment. The issuer can control and monitor both the offline and online transaction parameters. Mobile payment devices, at the moment, are usually handled as online transactions.

**Connectivity** of the POI must be high speed: ADSL, Ethernet or other broadband communication channels must be exploited. Dial-up connections should be avoided.

There are many different technical alternatives to connect a terminal/reader with an ECR\*/till, including connectivity over a local network. Processing capacity of terminal/reader and ECR/till are critical for a prompt response from their communication network.

- Connectivity of the terminal/reader with the ECR/till must be either wired directly or over a high speed network.
- The POI environment must be configured and operated so that the interaction between terminal/reader is as fast as possible, i.e. less than a second.

\* ECR (Electronic Cash Register)



“It’s impossible to get a contactless transaction to work regardless of where the phone is placed on the reader”.

## 7. One Tap Only!

The contactless interface is based on transmission of radio waves exchanging information in the domain of an **operating volume\*** between the terminal/reader and the payment device. Both terminal/reader and payment device have an antenna so that the contactless NFC interaction can succeed. Efficient positioning and signal strength will significantly impact the interaction.

**Signal strength** determines the distance which the terminal/reader must be able to communicate with the payment device. MasterCard and EMVCo have defined the acceptable maximum distance to be 4cm from the EMV Contactless Symbol surface. Terminals and readers are certified with this requirement but this does not guarantee that deployments in the market are compliant:

- The EMV Contactless Symbol must be positioned where the signal strength will meet the 4cm requirement should be deployed.
- Only terminal/readers with proven signal strength within the operating volume should be deployed.
- Deployed terminal/readers must be checked in every POI environment and allow modifications to ensure acceptance requirements are met.

\*Operating volume = also referred to as landing zone.



## 8. Trial and Error

In attempting a contactless transaction the consumer should be provided with a clear and easy process to follow.

If any delays or failures are experienced in attempting the contactless transaction, the environment should allow the cardholder to re-start the process with as little or no effort as possible.

- Correct positioning of the payment device against the reader, specifically for mobile phones, may require some consumer trial and error. Many mobile phones do not indicate specifically where the antenna is in the phone.
- It is recommended that the terminal/reader allows at least 1 minute for the consumer to find the best NFC interaction position before the payment transaction fails or is declined. During this time the terminal/reader keeps on attempting/completing the EMV interaction.
- By immediately asking the consumer to dip the card, the merchant interferes with the ability of the cardholder to attempt a contactless transaction.
- In a self scan environment, in the event of a declined or unsuccessful transaction, the checkout display should regain control of the process instead of interference from the assistant.

**"I needed the assistant to reactivate the NFC reader"**



## 9. If all else Fails....

“Transaction was not authorized but as I was in control of the card I opted to follow up with a Chip&PIN transaction which was successful”

**Consumers** may need time to familiarize themselves with the best way to tap their payment device.

During this ‘trial and error’ period it is important that the terminal does not abort the transaction too soon.

If all else fails, the consumer should not have to abandon the transaction, but instead, given the opportunity to dip their card in the terminal and provide PIN.



## 10. Reference

For merchants, simply implementing contactless is not enough. As with any new technology, making people aware of what it is and how to use it is key. This type of sustained management commitment from merchants is what is necessary to ensure a successful deployment.

**For more information refer to these acceptance quality documents:**

- MasterCard Contactless Acceptance Best Practices
- MC Contactless Branding Standards
- *PayPass*-MChip Requirements
- EMVco Contactless Indicator Guidelines
- EMVco Contactless POS Symbol Guidelines

**For more information please contact your MasterCard representative or refer to these contactless websites:**

<https://www.mastercardconnect.com/public>

<http://www.mastercard.com/contactless/>

[contactless@mastercard.com](mailto:contactless@mastercard.com)

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MasterCard Worldwide is at the heart of commerce. Our understanding of how and why commerce is conducted allows us to create more advanced methods of payment that fuel economic connections and drive real business value.

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