Viking Software
User Guide

Payment Terminals:

Desk/3500	iPP350
Move/3500	iWL250B
Lane/3000	iWL250G
iCT250E	iSMP4
Link 2500 Integrated	

nets ⋮

Table of Contents

Glossary

The following terms are used throughout this document:

Term	Description
BAXI	Protocol program used on the ECR
BC	Barcode
BLE	Bluetooth Low Energy
CVC	Card Verification Code
DCC	Dynamic Currency Conversion
ECR	Electronic Cash Register
EOT	Electronic Offline Transaction
GPRS	General Packet Radio Service
Host	Internet server that processes transactions
IFR	Interchange Fee Regulation (EU requirement)
Integrated	Terminals integrated with an ECR
IP	Internet Protocol
MAB	Mobile Acceptance Box
mPOS	Mobile Point of Sale
NFC	Near Field Communication
POS	Point of Sale
PSP	Payment Service Provider
QR	Quick Response (code)
Standalone	Terminals not integrated with an ECR
SW	Software
USB	Universal Serial Bus

1. Introduction

This User Guide is intended for use by merchants and covers the following types of Nets payment terminals:

Countertop

iCT250E

Desk/3500

Integrated

iPP350

Lane/3000

Link/2500

Mobile

iWL250B

iWL250G

Mobile Integrated

Move/3500

iSMP4

This terminal can also be integrated.

The information contained herein shall not be used, copied or redistributed without the prior written consent of Nets A/S.

2. Features

This section describes the specific features of each payment terminal and lists the accompanying accessories.
For all the terminals, popular additional services include tip functionality for restaurants, multiple users on the same terminal (for reporting sales per salesperson) and multiple companies set up on the same device, with differing settlement accounts.

NB: For RS232 integration, a minimum baud rate of 57600 is required.

2.1   Desk/3500

Desk/3500 is the Nets premium countertop terminal and the successor to the iCT250E model. It offers ECR integration via MagicBox, USB or RS232 cables.

Contactless reader

Magnetic stripe reader

Navigation keys (F1, F3, F2, F4)

MENU key

CANCEL (red)

Dot key (press Dot key plus F3 or F2 to increase/decrease screen contrast)

CLEAR (yellow) / feed paper (long press)

VALIDATION key (green)

Chip reader

Accessories include:

› Power supply cable (with MagicBox)
› Integration Cable
› Receipt roll
› Nets Merchant Card

2.2   Move/3500

Move/3500 is the Nets premium mobile terminal and successor to both iWL250G/3G and iWL250B. It provides all-in-one communication options, including Wi-Fi. It has been configured for popular tourist cards such as Discover, Diners Club, JCB and Union Pay. It features a receipt printer (refer to Section 9 for information on receipt paper rolls). For functionality, it will also be possible to control this terminal remotely using the Nets Paypoint application. Move/3500 is only meant to be used only in a handheld environment. We do not recommend any other usage for the terminal as it does not have a PIN shield.

Contactless reader

Magnetic stripe reader

Navigation keys (F1, F3, F2, F4)

MENU key

Feed paper

CANCEL (red)

CLEAR (yellow)

Chip reader

VALIDATION key (green)
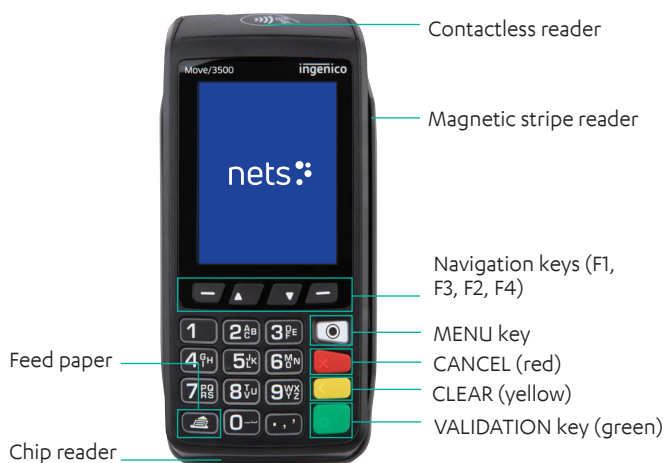
Accessories include:

› Power supply cable
› Charging unit/base station
› Battery
› Network cable (BT)
› Receipt roll
› Nets Merchant card

Move/3500 is only meant to be used only in a handheld environment. We do not recommend any other usage for the terminal as it does not have a PIN shield.

2.3 Lane/3000

Lane/3000 is a countertop terminal that is the direct successor to the iPP350 integrated terminal.

Contactless reader

Magnetic stripe reader

Navigation keys (F1, F3, F2, F4)

CANCEL (red)

VALIDATION key (green)

Chip reader

CLEAR (yellow)

Accessories include:

› Power supply cable (applicable for Ethernet, RS232 and in some cases, USB connections)

› Integration cable

› Nets Merchant card

2.4 iCT250E

iCT250E is, typically, a countertop terminal that is integrated with an ECR and communicates via internet. It has also been offered as a GPRS variant (iCT2x0EG) where GPRS is used as the sole connection or is activated as a backup in case internet communication fails. This model can also act as a standalone terminal, with no integration to an ECR.

Magnetic stripe reader

Navigation keys (F1, F3, F2, F4)

Contactless reader

CANCEL (red)

VALIDATION key (green)

Chip reader

CLEAR (yellow) / feed paper (long press)

Accessories include*:

› Power supply cable

› Network cable RJ9 to RJ45

› Receipt roll

› Nets Merchant Card

The offering can differ depending on the agreement with your local partner

2.5 iPP350

iPP350 is a countertop terminal from the Telium 2 range which is integrated with an ECR.

Magnetic stripe reader

Contactless reader

Navigation keys (F1, F2, F3, F4)

MENU key

CANCEL (red)

VALIDATION key (green)

Chip reader

CLEAR (yellow)

Accessories include:

› Power supply cable (whether integrated via MagicBox, RS232 or powered USB cables)*

› Integration cable

› Nets Merchant Card

Accessories may vary from country to country

2.6 iWL250B

iWL250B is a mobile terminal from the Telium 2 range that allows in-store mobility through a Base Station which also serves as a charging station). The terminal communicates over Bluetooth with the Base Station, which is connected via an Ethernet cable to the existing internet connection of the store. It features a receipt printer (refer to Section 9 for information on receipt paper rolls). The communication distance – whilst dependent on the internal configuration of the store – may be up to 100 meters.

Unlike iWL250G, the terminal offers ECR-integration capabilities through its communication via the Base Station. A popular use case for this is Pay@Table and it is typically done via serial cable.

For special purposes, the terminal can also be paired over open Bluetooth with tablet ECRs that then offer internet communication.

Connecting to base station (iWL250B)

MENU key

CANCEL (red)

CLEAR (yellow)

Magnetic stripe reader
Contactless reader
Navigation keys to scroll up and down in menus
Used to manually enter card data. Used to toggle between upper and lower case letters or from letters to numbers, and to check balance
VALIDATION key (green)
Chip reader

Accessories include*:

› Power supply cable
› Base station
› Network cable
› Receipt roll
› Nets Merchant Card

The offering can differ depending on the agreement with your local partner

2.7 iWL250G

iWL250G is a mobile, standalone terminal that uses GPRS or 3G for communication. It is not designed to be used as an ECR-integrated terminal. Typically, Nets SIM cards are bundled with the delivery, but customers are also free to use their own SIMs. Nets SIM cards enable roaming between national networks that are most prominent at the merchant site – this is a clear advantage to any competition that offers local SIMs.

Connecting to base station (iWL250B)

MENU key

CANCEL (red)

CLEAR (yellow)

Magnetic stripe reader
Contactless reader
Navigation keys to scroll up and down in menus
Used to manually enter card data. Used to toggle between upper and lower case letters or from letters to numbers, and to check balance
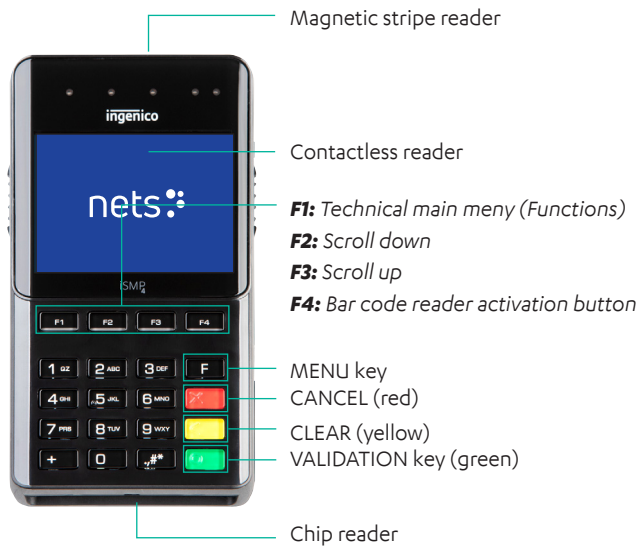VALIDATION key (green)
Chip reader

Accessories include*:

› Power supply cable
› Base station
› SIM card
› Receipt roll
› Nets Merchant Card

The offering can differ depending on the agreement with your local partner

2.8   iSMP4

iSMP4 is is a mobile terminal that is integrated with an ECR. It allows a cashier to roam freely within a store environment and close sales on-the-spot without the need to escort their customers to a checkout counter. ECR partners may also add payment functionalities to their tablet or smartphone-based system. It uses open Bluetooth or Wi-Fi integration to a host system that can either be a generic mobile ECR app or a customer-specific set-up. Both Android and iOS are supported. An optional laser bar-code reader enables scanning of items/QR codes to the ECR app.

iSMP4 is only meant to be used in a handheld environment. We do not recommend any other usage for the terminal as it does not have a PIN shield.

Magnetic stripe reader

Contactless reader

F1: *Technical main meny (Functions)*
F2: *Scroll down*
F3: *Scroll up*
F4: *Bar code reader activation button*

MENU key
CANCEL (red)
CLEAR (yellow)
VALIDATION key (green)

Chip reader

Accessories include:

› USB-C cable
› Nets Merchant Card

2.9   Link/2500 Integrated

Link/2500 Integrated is a handy terminal with lightweight and slim design. The terminal is quick to set up and pair with a third-party device. For integration, both Bluetooth and wired connections can be used. The terminal can be charged on drop-in-basis via an optional, dashboard-mounted docking station. This device is a great addition option for mobile merchant running the business from a vehicle!

Magnetic stripe reader

Contactless reader

F1: *Technical main meny (Functions)*
F2: *Scroll down*
F3: *Scroll up*
F4: *Bar code reader activation button*

MENU key
CANCEL (red)
CLEAR (yellow)
VALIDATION key (green)

Chip reader

Accessories include:

› Nets Merchant Card
› Active holder: R190-0045 (mounted to the car electric plug adapter
› Active holder: R190-0044 (installed inside the car

2.9.1 Bluetooth Pairing

For the mobile device + ECR solution to be used with iSMP4, the devices must be connected via Bluetooth. To connect the payment terminal to a mobile device, activate Bluetooth on the mobile device. Then perform the following on the iSMP4 payment terminal:

› Press F2.
› Press 2 - Bluetooth or scroll down to 2 Bluetooth, then press OK (green button at the bottom-right of the terminal).
› Press 2 - Pair with phone.
› The terminal will display a code, and start pairing for a mobile device. Compare the code and press OK to confirm code.
› With iSMP4 and the mobile device (the box solution) connected via Bluetooth, the Bluetooth icon appears in the iSMP4 screen. If something goes wrong with the pairing, an error will appear.

2.9.2 Barcode Reader

iSMP4 is equipped with a 1D and 2D barcode reader that can read several barcode formats. To configure the reader for a specific use, consult a POS partner for assistance.

NB: The barcode reader will not work when iSMP4 is charging.

To use the barcode reader, follow the below steps:

› Press F4.
› When the side buttons are activated for 20 seconds, the timer is reset after each read.
› When the reader is active, "Barcode reader active" is displayed.
› To turn on the barcode reader, press one of the side buttons on the terminal.
› A beeping sound will verify that the barcode has been read and is sent to the ECR. The laser then turns off.
› To read the next barcode, press one of the side buttons again.
› To abort a barcode reading session, press the red STOP button or MENU. The barcode reading will also be aborted if a request from the ECR is sent or a payment card is swiped or inserted.
› Barcode data is sent to the ECR/POS system directly when read. If an error occurs, the barcode must be read again.

By using an API in the terminal, terminal functions can be activated through the ECR-integrated device, whether tablet or cash-register. This can be, for example, to activate, block or accept barcode scans.

2.9.2.1 Supported Barcode Symbologies

All of these are enabled by default. To learn how they are configured from your POS, please consult your POS partner.

2.9.2.2 Resetting the Barcode Reader

If the barcode reader is not working properly, attempt a reset by following this procedure:

› Press F to enter the Main Menu.
› Press 7 for Operator Menu.
› Press 6 for Barcode Reset and the barcode reader will return to default settings.
› Press OK to leave the menu or alternatively try again.

3. Display

This section describes the information that is presented on the display screens of payment terminals.

NB: The terminal menus shown are not available for all terminal types.
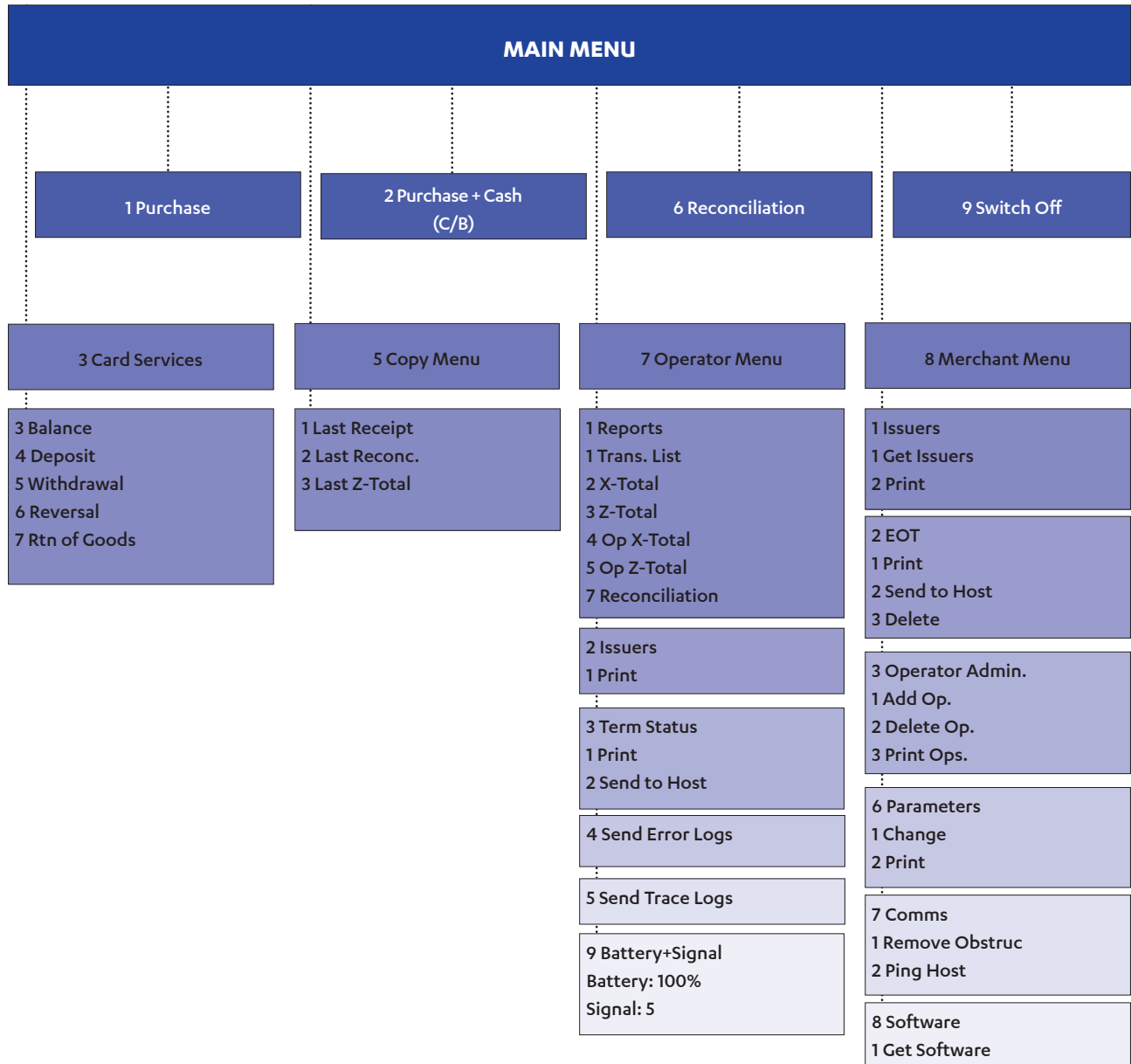
3.1 Menu Structure

MAIN MENU

- 1 Purchase
- 2 Purchase + Cash (C/B)
- 6 Reconciliation
- 9 Switch Off

- 3 Card Services
- 5 Copy Menu
- 7 Operator Menu
- 8 Merchant Menu

3 Card Services
3 Balance
4 Deposit
5 Withdrawal
6 Reversal
7 Rtn of Goods

5 Copy Menu
1 Last Receipt
2 Last Reconc.
3 Last Z-Total

7 Operator Menu
1 Reports
1 Trans. List
2 X-Total
3 Z-Total
4 Op X-Total
5 Op Z-Total
7 Reconciliation

2 Issuers
1 Print

3 Term Status
1 Print
2 Send to Host

4 Send Error Logs

5 Send Trace Logs

9 Battery+Signal
Battery: 100%
Signal: 5

8 Merchant Menu
1 Issuers
1 Get Issuers
2 Print

2 EOT
1 Print
2 Send to Host
3 Delete

3 Operator Admin.
1 Add Op.
2 Delete Op.
3 Print Ops.

6 Parameters
1 Change
2 Print

7 Comms
1 Remove Obstruc
2 Ping Host

8 Software
1 Get Software

Table 1: Additional Information on Menu Items

Menu Function	Terminal Type
Main Menu > Switch Off	This function is only present in iWL and iSMP
Operator Menu > Battery + Signal	For all battery-operated GPRS terminals
Operator Menu > Battery	For all battery-operated terminals except GPRS
Menu 7-6 "Reset Barcode"	This is only available on iSMP terminals

3.2   Quick Menu

By using Quick Menu, merchants can avoid scrolling through menus or giving validations (using the OK button) each time they want to e.g. perform a transaction. Quick Menu allows merchants to perform functions on the terminal more swiftly.

When the terminal display requests 'Swipe the Merchant Card', the Merchant Card should be swiped with the strip facing left. Once the MENU appears, press on the digits in Table 2 to go directly to your selection. Alternatively, the arrow keys may be used to arrive at selections.

NB: For integrated terminals, all commands must be started with MENU or by swiping the Merchant Card.

Table 2: Quick Menu

Function	Keys (does not include Lane/3000 or iPP350)
Purchase	Enter the amount
Purchase + cash (C/B)	Press MENU and 2
Reconciliation	Press MENU and 6
Balance	Press MENU and 3+3
Deposit	Press MENU and 3+4
Cancel the last transaction	Press MENU and 3+6
Return of goods	Press MENU and 3+7
Copy of the last receipt	Press MENU and 5+1
Transaction list	Press MENU and 7+1+1
X-Total	Press MENU and 7+1+2
Z-Total	Press MENU and 7+1+3
Operator X-Total	Press MENU and 7+1+4
Operator Z-Total	Press MENU and 7+1+5
Printing out backup solution (EOT)	Swipe the Merchant Card, then press 2+1

3.3 Parameter Menu

The Parameter Menu options are explained in Table 3.

Table 3: Parameter Menu Options

Level 1	Level 2	Level 3	Explanation
1 Function	Terminal ID		Enter Unique ID
	Amount Mode	Øre/Kroner or Cent/Euro	
	Backup Solution (EOT)	Yes/No	It is used to enable/disable BankAxept offline. Applicable in Norway.
	Service First	Yes/No	To enable/disable card-initiated transactions.
	Information Field	No Information/CID/ Information Text/OperID	Additional information is required to be sent to the PSP.
	Sound	None/On Error/Always	
	Always Copy	No/Yes	Yes: Always 2 copies of receipt will be printed No: Only one copy of receipt will be printed.
	Duplicate Check	No/Yes	Yes: Customer will not be able to make 2 transactions with the same amount. No: Customer can make a number of transactions with the same amount.
	Language	NO, SE, DK, EN, FI, DE, HU, ET, PL, NL, FR, ES	All these languages are supported by the terminal.
	Tips	Total amount > Yes/No	
	Change Operator	Disable/After Reconc/After Z-Total/Always/After 0-Report	This option comes into use when there is more than one operator using that terminal.
	VAT	Fixed Rate/Change Rate/No VAT	
	VAT Rate		
	Sleep Mode	Auto/Always (not visible if ECR switched on)	Only applicable for battery-operated terminals.
	Power-Off Modes	Never/After 1 hour/After 2 hours	Power-Off Menu will not work if power-charging is ongoing.
	Fallback Language	NO, SE, DK, EN, FI, DE, HU, ET, PL, NL, ES, FR	Languages will be downloaded from the host environment.
	Backlight	Auto/Always	
	Chip Direction	Chip up/Chip towards you/Chip down	The direction in which the chip is to be inserted into the terminal.
	Customer Receipt	Always/On demand	
	IFR Priority	Domestic/None/International	Visibility: Only shown when merchant has an agreement with a national scheme. Comment: The latest setting value can be downloaded from MS-TMS or update to MS-TMS.

Level 1	Level 2	Level 3	Explanation
2 Communication	Comm. Type =	Wi-Fi/Ethernet/BT Android/via ECR/GPRS	
	Host IP Address	91.102.24.142 / 193.214.20.211 *	
	Host IP Port	9670	
	GPRS APN	Nets	
	GSM PIN	****	
	DHCP Use	DHCP/Static	
3 ECR	ECR	Yes/No	
	Comm. Type	IP Wi-Fi/BT Android/IP Ethernet/ USB Slave	
	Card Info	Never/After amount/Always	It allows you to send card information to the ECR.
	Header/Footer	Yes/No	It allows you to enable/disable the header and footer on the terminal display.
4 Security	Protect Menu	Yes/No	To set whether access can be controlled by pressing the Menu button. Access control is default OFF for standalone terminals and default ON for integrated terminals.
	Protect Reconciliation	Yes/No	To set whether you need access control on performing Reconciliation. Default: No
	Protect Reversal	Yes/No	To set whether you need access control when performing reversal. Default: Off
6 Change profile	NO, FR, SE, DK, FI, DE, HU, ET, PL, NL		

* 91.102.24.142 Internet address.
  193.214.20.211 (VPN) Requires service through ISP.

3.4   Ethernet

This 3-block symbol indicates whether the terminal has access to Ethernet.

› White symbol = the terminal has an Ethernet port.
› Green symbol = the terminal has an Ethernet port and is connected to a network.
› Red symbol = the terminal has an Ethernet port but has not been assigned an IP over DHCP.

3.5   Bluetooth
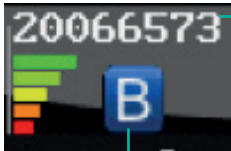
This field shows the serial number of the Base Station to which the terminal is connected. The signal strength is indicated over 5 levels; red is the weakest signal, green is the strongest.

This indicates whether the terminal has Bluetooth support. If the symbol is not visible, Bluetooth is not supported. If the Bluetooth symbol is grey or red, the terminal is outside the Base Station's coverage range.

3.6   GPRS

This field shows the name of the telecom company that supplies the terminal. The signal strength is indicated over 5 levels; red is the weakest signal, green is the strongest.

This indicates whether the terminal has GPRS support. If the symbol is not visible, GPRS is not supported. If the GPRS symbol is white, the terminal is not connected to the network. If the GPRS symbol is green, the terminal is network connected.

3.7   Battery & Clock

This field shows the battery level and the date/time. The battery symbol indicates the remaining battery charge and confirms that the battery is installed. The plug symbol shows that the terminal or the terminal's Base Station is connected to power.

4. Card Reading

This section describes the various methods that may be used to read information on a customer's bank card.

Chip

Magnetic Stripe

Contactless (NFC) Payments
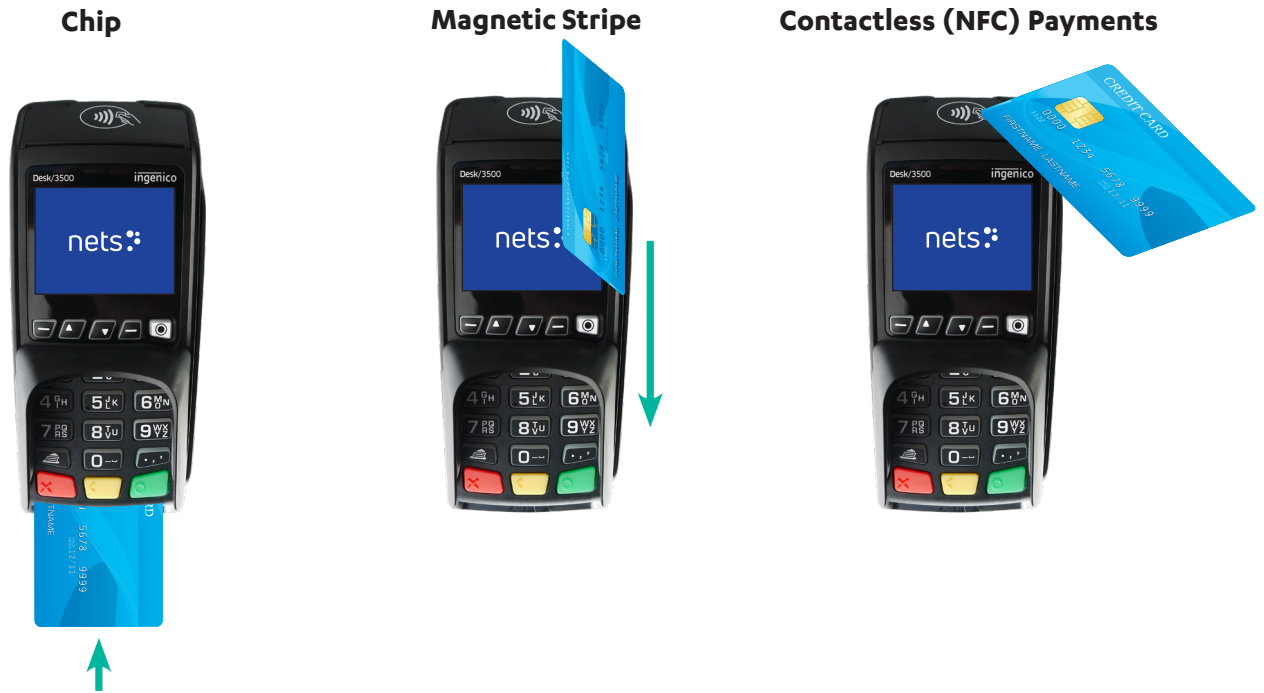
4.1 Chip

To read the card using the chip, the chip must be facing upwards when inserting the card into the front of the terminal.

4.2 Magnetic Stripe

To read the card using the magnetic stripe, the strip must by facing left. Swipe the card as shown.

NB: If the contactless option is activated, press F2 (down arrow) to activate the magnetic stripe reader.

4.3 Manual Key

This function can be used to purchase and return goods. Instead of the customer using their card, his/her card data can be entered on the terminal.

1. Press MENU.
2. Press OK for purchase.
3. Enter the purchase amount, then press OK.
4. Press the F4 key (top-right of the terminal).
5. Enter customer's card number (shown on card), then press OK.
6. Enter the card expiry date (mm/yy), then press OK.
7. Enter the card's CVC number, then press OK. CVC is the three digits shown on the back of the card, next to the customer's signature.
8. The amount is verified by pressing OK.
9. If the amount is authorised, the terminal display will show APPROVED and a receipt is printed.

NB: This feature is only available for credit cards with signature check. Transactions that are not supported will be rejected at the PSP side.

4.4 Contactless (NFC) Payment

Reading the card (or mobile phone) using contactless depends on what type of payment terminal is used. For terminals from the Telium 2 range (iCT250E, iPP350, iSMP4 and iWL250B/G), the card/phone must be held above the display screen of the terminal. For terminals from the TETRA range (Desk/3500, Move/3500 and Lane/3000), the card/phone must be held above the contactless symbol found at the top of the terminal casing.

Contactless payment is a common term for all payments using NFC technology (Near Field Communication). NFC can be implemented in a range of payment methods such as chip cards and Micro SD cards connected to mobile phones, clocks, bracelets etc. or via mobile phone (through a wallet application).

Contactless payments without verification can only be used for purchases under a certain amount; all purchases above this amount will require verification – either with a PIN code or password. The details of the verification will depend on the payment card provider. However, the instructions to enter the verification code will be shown on the terminal and/or on the mobile phone.

NB: The first time a contactless card is used, the card must be opened for NFC transactions. This is done by inserting the chip into the terminal while performing the transaction.

For security reasons, the terminal will, in some cases, ask for a PIN - even if the amount the amount is under the contactless limit.

4.4.1 Wallet Solution

"Wallet" is a solution for confirming a contactless payment using the customer's mobile phone. Viking terminals also support Mobile Dankort both via BLE (MAB Box) and QR.

4.4.2 QR Codes

When initiating a transaction using a QR code:

1. The QR text will be shown in the lower right-hand corner of terminal screen. Press F1 to activate it.
2. Once the terminal shows the QR code, scan it using the wallet installed on the phone.
3. The transaction will proceed by asking (on the wallet screen) for confirmation of the amount.
4. Enter the passcode to complete the transaction.

4.4.3 Contactless Payment with Wallet Solution

To use the wallet function, customers must install a phone app supplied by their card issuer. They can then confirm contactless payments by holding their phone over the top of the terminal (where the contactless symbol is shown on the terminal casing). As with card-based contactless payments, purchases above a certain amount will require verification.

Contactless payment via wallet can be performed even if the mobile phone is switched off. However, the customer will be unable to confirm payments in such instances. If the customer has registered several payment cards via a wallet solution, the correct payment card must be selected in the application/program before the phone is switched off.

4.4.4 IFR Selection

The Merchant can choose which card scheme is the default choice on the terminal:

› Swipe the Merchant card
› 6 (parameters)
› 1 (change)
› 1 (Function)
› IFR Priority

NB: You may also choose between "domestic", "international" and "none"

The customer can override the terminal settings by pressing the yellow button before swiping/tapping the card.

5. Transactions

This section describes the transaction methods that may be performed on the payment terminals.

› You must perform manual reconciliation before the terminal is used for the first time.
› Reconciliation of one terminal reconciles all the terminals under the same merchant number. Read more about reconciliation in Section 10.

NB: If your payment terminal is integrated with an ECR, these functions must be called from the ECR and not directly from the payment terminal.

Manual reconciliation:

nets
Main menu
4 Optional Func
5 Copy menu
6 Reconciliation
Print Pending

Press MENU.

Press 6
or scroll down using the arrow key to Reconciliation and press OK.

If the reconciliation is initiated from the terminal, the terminal will print/store the receipt even if integrated.

If the ECR sends the reconciliation command (i.e. the ECR initates the action), the terminal will send the receipt to the ECR.

The terminal behaves according to where the action was initiated.

5.1 Perform a Purchase

5.1.1 Purchase (Standard)

This function is used to complete standard purchases.

nets	
Amount + OK	100.00
NOK =	100.00
Awaiting card	
NOK =	100.00
Code + OK	
Hide PIN entry	
APPROVED	

Enter amount.

Press OK.

Ask the customer to insert the card.

Ask the customer to enter their PIN code and press OK (for credit card with signature, press only OK to confirm amount).

If authorised, the terminal display will show APPROVED and print a receipt.

5.1.2 Purchase with Cash Withdrawal (Cashback)

This function is used to complete purchases that include cash withdrawals. Purchases + cash are shown as Option 2 under Card services.

nets	
Main menu 1 Purchase **2 Purchase + C/B** 3 Card services	Press MENU.
	Press 2 - Purchase with C/B.
Amount + OK 100.00	Enter the purchase amount and press OK.
Amount + OK 20.00	Enter the cash amount and press OK.
NOK = 100.00 Awaiting card	Ask the customer to present their card.
APPROVED	If authorised, the terminal display will show APPROVED and print a receipt.

5.1.3 Purchase with Manual Entry of Card Data

This function can be used to purchase and return goods. Enter card data on the terminal instead of the customer using his/her card. This feature is only available for credit cards with signature check.

nets	
Main menu **1 Purchase**	Press MENU.
	Press OK for Purchase.
Amount + OK 100.00	Enter amount of purchase and press OK.
NOK = 100.00 Awaiting card	Press the F4 key (the key at the top right of the terminal).
Enter card no.:	Enter the customer's card number (from the front of the customer's card) and
Expiry date: /	Enter card expiry date mm/yy and press OK.
Enter CVC:	Enter the card's CVC number and press OK. CVC is the last three digits of the number that can be found on the back of the card next to the customer's signature.
Amount = 100.00 OK or STOP	The amount is verified by pressing OK. Cancel the transaction by pressing STOP.
APPROVED	If the amount is authorised, the terminal display will show APPROVED and print a receipt. **NB:** The user can skip the entry of CVC by pressing OK.

5.1.4   Cancellation (Reversal) of Last Transaction

Cancellation can only be carried out for the most recently authorised purchase transaction.

nets:	Press MENU.
Main menu 1 Purchase 2 Purchase + cash **3 Card services**	Press 3 or scroll down to Card services and press OK.
Card services 4 Deposit 5 Withdrawal **6 Reversal**	Press 6 or scroll down to Reversal and press OK.
Swipe Merchant card	Swipe the Merchant Card, magnetic stripe facing left.
NOK 100.00 OK or Cancel	Press OK to confirm cancellation, or press STOP to abort.
REVERSED	Wait for receipt.

5.1.5   Return of Goods

Used when goods that have been paid for with a card are returned. Make sure you have an agreement with your acquirer to process refunds.

nets:	Press MENU.
Main menu 1 Purchase 2 Purchase + C/B **3 Card services**	Press 3 or scroll down to Card Services and press OK.
Card services 5 Withdrawal 6 Reversal **7 Rtn of goods**	Press 7 or scroll down to Return of Goods and press OK.
Swipe Merchant card	Swipe the Merchant Card, with the magnetic stripe facing left.
Return amount: 100.00	Enter the amount on the customer's receipt and press OK.
NOK = 100.00 Awaiting card	Ask the customer to insert/swipe the card or press the F4 key to enter the card number manually.
APPROVED	If the product refund is authorised, the terminal display will show APPROVED and print a receipt. Approved receipt corresponds to purchase receipt.

5.2 Receipt

5.2.1 Create a Receipt

This function is used to print out receipts with an amount for the customer to pay and a line for tips and total amount. If tips is activated, Create a Receipt will appear as Option 2 in the Main Menu.

nets
Main menu
1 Purchase
2 Create a receipt
3 Card services
Amount + OK
42.00
Print Pending

Press MENU.

Press 2
or scroll down using the arrow key to Create a Receipt and press OK.

Enter amount of purchase and press OK.

Wait for receipt.

RECEIPT
05/07/2020 10:14
Amount =   42.00
Cash = ...
Extra = ...
Total = ...
Cash can only be paid out with a BankAxept card

5.2.2 Copy of Last Receipt

This function is used to extract a copy of the most recently authorised transaction receipt.

nets
Main menu
3 Card services
4 Optional Func
5 Copy menu
Copy menu
1 Last receipt
2 Last reconc.
3 Last Z-Total
Print Pending

Press MENU.

Press 5
or scroll down to Copy Menu and press OK.

Press 1 or OK.

Wait for receipt.

5.2.3 Receipt Info

A receipt is only a print-out and cannot be used for later claims. Purchases must be carried out on the terminal in the standard way.

5.2.4 Additional Transaction Features

5.2.4.1 Tips

Tips is an optional service. Contact your terminal supplier to gain access to the tip function. Tips can be used in three different ways:

- Print out a receipt on which the customer fills in the tips amount and the total amount.
- Customer enters the tips amount directly on the terminal.
- Customer enters the total amount, including tips, directly on the terminal.

5.2.4.2 Purchase with Tips

This function is used for purchases that include tips.

nets

Main menu	
1 Purchase	
2 Purchase + C/B	
3 Card services	
Amount + OK	
	120.00
Amount =	120.00
Total =	150.00
NOK =	150.00
Awaiting card	
Amount =	150.00
Code + OK	
Hide PIN entry	
APPROVED	

Press MENU.

Press OK for Purchase.

Enter amount and press OK.

Depending on the setup of the tips function within the terminal, the terminal will request that the customer enters a tips amount or a total amount (illustration to the left shows total amount).

Ask the customer to insert card.

Ask the customer to enter PIN and press OK (for credit card with signature, press only OK to confirm amount).

If authorised, the terminal display will show APPROVED and print a receipt.

Receipt, purchase with tips:

Nets
H. Martinsensvei
NO-0978 OSLO

Bax: 10139902-125442
BankAxept *****05040-3

05/07/2020 10:14
Ref.: 829764004472

Amount = 120.00
Extra = 30.00
Total = 150.00

Authorised
Thank you for your visit
We hope to see you again!

5.2.4.3 DCC (Dynamic Currency Conversion)

DCC is a solution for instant currency conversion for international customers.

With DCC, the merchant can offer their international customers to pay in their own currency while the merchant will receive the payment in local currency.

Through a message on the display screen, the customer will be offered to make the payment in their local currency.

The merchant will receive a small profit when the customer decides to pay in their own currency.
Contact Customer Service or Sales (refer to Section 20) to activate DCC on the terminal.

5.3   Prepaid

5.3.1   Gift Cards

5.3.1.1   Deposit

This function is used to insert a required amount onto an electronic gift card.

5.3.1.2   Available Balance

Standalone Terminal

This function is used to view the available balance on a gift card on a standalone terminal.
Receipts are not printed for balance enquiries.

Integrated Terminal

This function is used to view the available balance on a gift card on an integrated terminal.

5.3.1.3   Defective / Replacement Gift Card

It is possible to create replacement cards for defective Nets prepaid gift cards. There may be various reasons that a customer requires a new gift card. These may include:

› Demagnetisation
› Defective magnetic stripe/card

Available Balance

Manual entry of the card number is used to check the outstanding balance on the defective card.
The customer must have access to the card number (19 digits) and produce the physical card.

When the balance on the defective card is known, a replacement card can be created.

Prepaid Gift Card

This function is used to view available balance on a gift card on a standalone terminal.

6. Hardware Connections

This section describes the methodology for hook-up of the payment terminals and accessories.

6.1   Desk/3500

MagicBox Integration

Desk/3500 is delivered with a MagicBox cable arrangement already installed in four ports at the back of the device. When integrating the payment terminal with an ECR, this MagicBox arrangement means that the merchant only needs to connect a single network cable (RJ45) from the MagicBox to an ECR. To power-up the payment terminal, the power supply cable must be connected to the power port in the MagicBox. Alternatively, an RS232 cable can be used.

or

USB Integration

For ECRs that only have a USB port for integration with a payment terminal, the MagicBox shall not be used; in this case, all cables connecting the payment terminal with the MagicBox shall be disconnected. The provided USB integration cable shall then be used to connect the ECR with the terminal.

NB: USB drivers for integration with an ECR system can be downloaded from:
https://developer.ingenico.us/software-list/

6.2   Move/3500

A Base Station with power supply cable is used to re-charge the Move/3500 mobile payment terminal. Optionally, for restaurants with compatible ECRs, a Bluetooth network cable is provided to enable ECR/Pay@Table integration. Hence, Move/3500 can be ordered in either Wi-Fi/4G or BT/Ethernet configurations. To install and charge a Move/3500, do as follows:

Connect the power cable to the Base Station (insert first image from Section 6.6.1).

Place the terminal on the Base Station.

The terminal will connect and is then ready for use (insert second image from Section 6.6.1).

The new terminal comes with a battery that has been minimally charged. The terminal must be charged to perform to the full.

6.3   Lane/3000

Lane/3000 is integrated with an ECR using either a USB cable, RS232 cable or Ethernet (not ECR). The USB cable must be connected to a USB port on the ECR. An RS232 cable must also be connected to the COM port on the ECR.

NB: For RS232 integration, a minimum baud rate of 57600 is required.

USB drivers for integration with an ECR system can be downloaded from:
https://developer.ingenico.us/software-list/

6.3.1   Security

To prevent theft, it is important to fix the integration cable to the back of the terminal using the accompanying M2.5x8 screws (2 of).

Location of the two M2.5x8 screws.

6.4   iSMP4

iSMP4 uses open Bluetooth or Wi-Fi integration to a host system that can either be a generic mobile ECR app or a customer-specific set-up. Both Android and iOS are supported. An optional laser barcode reader enables scanning of items/QR codes to the ECR app.

6.5   iCT250E

iCT250E is supplied with a power supply cable and connected to the internet of the store via Ethernet cable.

It can also be integrated with an ECR system through serial, IP Ethernet or USB connection.

6.5.1   Ethernet / Broadband

To connect the terminal to a power supply and internet, please locate the following components:

NB: The terminal must be switched off when connecting the Ethernet cable.
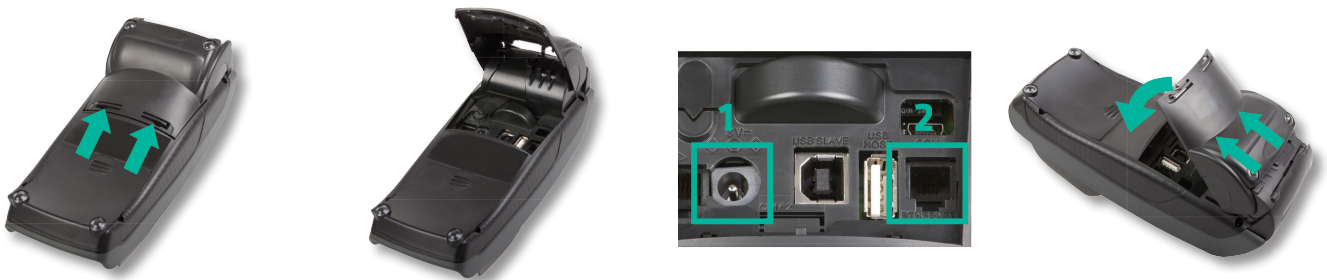
Open the cable cover by pressing the clips upwards.

Lift the cover in the direction of the arrow.

When the cover has been removed, connect the terminal power cable (1) and Ethernet cable (2).

To close the cover again replace the top part, first ensuring that the cover clips are in place on the terminal. Then press the cover down towards the back of the terminal.

6.5.2   MagicBox

When requested by a merchant, the iCT250E model can also be integrated with an ECR via serial or USB connection. Magic-Box can be used when iCT250E is used standalone or integrated with an ECR system. In this arrangement, a MagicBox comes already connected to four ports at the back of the payment terminal. It means that the merchant is only required to connect a single network cable (RJ45) from the MagicBox to e.g. the ECR.

MagicBox can be used when iCT250 E must be integrated with an ECR system. At one end of the MagicBox cable there are four different cables which must be connected to the payment terminal:

1.   Analogue line.
2.   Power supply.
3.   Integration with ECR system.
4.   Ethernet connection.

6.6   iWL250B

iWL250B communicates over Bluetooth with its Base Station. The station is connected via an Ethernet cable to the existing internet connection of the store. When integrated with the ECR via the Base Station communication (i.e. for Pay@Table), the Ethernet cable is used.

6.6.1   Base Station

To install and charge an iWL250B, do as follows:

Connect the power cable to the Base Station.

Place the terminal on the Base Station.
The terminal will connect and is then ready for use.

The new terminal comes with a battery that has been minimally charged. The terminal must be charged to perform to the full.

Connecting the Base Station to a Network

When using the restaurant solution Pay@Table or a wireless router, an Ethernet cable must be connected from the ECR or router to the Base Station. The Base Station communicates with the terminal via Bluetooth.

Connect the Ethernet cable (1) and power cable (2) as shown in the image. Place the terminal on the Base Station; the terminal will connect and is then ready for use.

For an iWL250B to work, it must be associated with a Base Station within range. To change which Base Station iWL250B is connected to, do as follows:

1.   Press the button at the far left under the screen.
2.   Select 0 – Telium manager.
3.   Enter code 4302+OK.
4.   Select Initialization > Hardware > Cradle setup > Association.
5.   Now you can choose to add a new Base Station, select a Base Station, or delete a Base Station.

6.7   iWL250G

iWL250G uses GPRS or 3G for communication. It is delivered with a Base Station and power supply cable.

6.7.1   Base Station

The terminal is charged in the accompanying Base Station. Charging may also be done on-the-go via the side micro-USB port. To install and charge an iWL250G, do as follows:

Connect the power cable to the Base Station.

Place the terminal on the Base Station.
The terminal will connect and is then ready for use.

The new terminal comes with a battery that has been minimally charged. The terminal must be charged to perform to the full.

Connecting the Base Station to a Network

For an iWL250B to work, it must be associated with a Base Station within range. To change which Base Station iWL250B is connected to, do as follows:

1.   Press the button at the far left under the screen.
2.   Select 0 – Telium manager.
3.   Enter code 4302+OK.
4.   Select Initialization > Hardware > Cradle setup > Association.
5.   Now you can choose to add a new Base Station, select a Base Station, or delete a Base Station

6.7.2   SIM Card

Nets SIM cards are typically used for Move/3500 (4G/Wi-Fi) and are bundled with the delivery. This applies to rental terminals only, not purchased terminals. There is an extra charge for purchased terminals. However, customers are also free to use their own SIMs. Nets SIM cards enable roaming between the national networks that are most prominent in the area of the merchant site, giving Nets SIM cards a clear advantage over other SIM cards.

6.8   iPP350

Open the backside cover by pressing the clips downwards.

Insert the SIM card under the flap labelled "SIM".

iPP350 is integrated with an ECR. Integration is either via a USB or RS232 cable.

NB: For RS232 integration, a minimum baud rate of 57600 is required.

The USB cable must be connected to the USB port on the ECR whilst the RS232 cable must be connected to the COM port. The integration cable must be connected as follows:

6.8.1   Security

To prevent theft, it is important to fix the integration cable to the back of the terminal using the accompanying M2.5x8 screws (2 of).

Location of the two M2.5x8 screws.

6.8.2   Download USB Drivers

USB drivers for integration with an ECR system can be downloaded from:
https://developer.ingenico.us/software-list/

6.8.3   MagicBox

MagicBox is used when iPP350/Lane3000 must be connected directly to the Ethernet (broadband).
The MagicBox cable must be connected to the payment terminal as follows:

7. Network Connections

This section describes the methods for connecting the software of the payment terminals to a network.

7.1   By Terminal Type

Table 4 shows all the types of network connections that the payment terminals can have.

NB: While terminal-related settings are mentioned, BAXI should also support the same set-up.

Payment Terminal	Host Comm type	ECR Comm type	Set-Up Process
All terminals except iSMP4	Ethernet	IP Ethernet - all terminals except iSMP4, iWL250B/G and Move/3500	Ensure that the Ethernet cable is connected. Now go to Function > Comms > Ethernet. In the ECR menu, set ECR Comm as "IP Ethernet". Upon reboot, communication between the host and ECR will be established.
iSMP4, ICMP, iWL250B & Move/3500	BT Android	BT Android	Requires BAXI to be installed on Android phone. Connect the phone and terminal via Bluetooth.
iSMP4 & Move/3500	Wi-Fi	IP Wi-Fi	ECR and terminal must be connected to the same Wi-Fi.
All terminals	via ECR	USB Slave	USB must be connected to the terminal. Then set ECR = True and Host Comm = USB from Function menu. NB: Corresponding settings in BAXI should also be done to support this set-up e.g. COM port setting.
iCT250E/G and Desk/3500	Ethernet	USB Slave	Ethernet and USB cables must be connected to the terminal. Set Host Comm and ECR Comm type in the Function menu.
All terminals except portable devices e.g. ICMP, ISMP, Move or IWL terminals.	Via ECR	RS232	RS232 cable must be connected to BAXI. Set COM port=1 in BAXI.ini. Port 1 is fixed for RS232 connection. Set same Baud rate in ECR settings and BAXI.ini. NB: For RS232 integration, a minimum baud rate of 57600 is required. Now set the Host and ECR Comm types in the Function menu.
iCT250E/G	GPRS	USB Slave	SIM must be inserted in the terminal. Set Host Comm and ECR Comm type in the Function menu.
	GPRS	No	This configuration is for standalone terminals.

Table 4: Network Set-Up by Payment Terminal Type

7.2   Access Point Name (APN) in GPRS Terminals

To choose the parameter location, go to Main Menu > Merchant Menu > Parameters > Change > Comms.

When the SIM card is Nets-owned, set the APN to Internet.

When the SIM card is self-owned, the setting is provided by the respective SIM card providers.

NB: For Nets-owned SIM cards, should the above settings not work, you may try changing the GPRS APN to "Nets" and the Host IP address to 91.102.24.142.

For self-owned SIM cards, should these settings not work, you may try changing the Host IP Address to 91.102.24.142.

7.3   Static IP Addresses in Ethernet Terminals

To choose the parameter location, go to Main Menu > Merchant Menu > Parameters > Change > Comms.

Then scroll-down through the same Menu to set up all IP addresses.

Set DHCP Usage to Static. Then set the following:

› Terminal IP address:
› Gateway IP:
› Subnet Mask:
› DNS 1:
› DNS 2:

On exiting the Menu, the payment terminal will reboot to apply the changes.

7.4   ECR IP Address and Ports

In this type of set-up, the Nets payment terminal is connected to the ECR via an Ethernet cable.

Go to Main Menu > Merchant Menu > Parameters > Change > Function / Comms / ECR (set to "Yes") > Comm Type (set to "IP Ethernet").
Now scroll to the ECR IP Address (set to the IP Address of the ECR e.g in the format of xxx.xxx.xxx.xxx).
Exit the Menu. The payment terminal will now reboot.
NB: BAXI should also support the same set-up.

7.5 Wi-Fi for Standalone Terminals

7.5.1 Move/3500

7.5.1.1 Wi-Fi Set-Up for Move/3500

1. Press F1 ▭.
2. Swipe the Merchant Card.
3. Select Control Panel.
4. Select Terminal Settings.
5. Select Comm Means.
6. Select Wi-Fi, followed by Enable.
7. Scan the Network and select the available network.
8. Enter your password using the up/down ▲ ▼ buttons on the terminal
(use F1 and F4 ▭ ▭ for side navigation).
9. Select OK (green key) ▮.

Result: The new profile is now connected. Go to Status Option to verify that the status shows Connected.

7.5.1.2 Using the Shortcut Menu

1. Press the Down ▼ key.
2. Select the Wi-Fi setting.
3. Swipe the Merchant Card.
4. Select Terminal Settings.
5. Select Comm Means.
6. Select Wi-Fi, followed by Enable.
7. Scan the Network and select the available network.
8. Enter your password using the up/down ▲ ▼ buttons on the terminal
(use F1 and F4 ▭ ▭ for side navigation).
9. Select OK (green key) ▮.

7.5.2 iSMP4

7.5.2.1 Using Shortcut Menu

1. Press F2 ▭.
2. Press 4 ▭ to open Wi-Fi settings.
3. Swipe Merchant Card.
4. Press 1 ▭ to enable Wi-Fi.
5. Press 2 ▭ to Scan network, then select the required network.
6. Enter your password (use F2 & F3 ▭ ▭ for up/down and F1 & F4 ▭ ▭ for sideways navigation).
7. Select OK ▮ (green key).
8. Press Stop ▭ (red key) repeatedly to return to Main Menu.

7.5.2.2 Using Parameter Menu

1. Press F-8-6-1 ▭ -▭ -▭ -▭ to open Parameter Menu.
2. Press 2 ▭ to open Comm Menu.
3. Set the Comm Type to Wi-Fi (Use green key ▮ to enter, and F2 & F3 ▭ ▭ for navigation).
4. Press Stop ▭ (red key) repeatedly to return to Main Menu.

7.5.2.3 Bluetooth Pairing

To use the mobile device/ECR solution with iSMP4 or Move/3500 terminals, the devices must be connected via Bluetooth. To do this, turn on Bluetooth on the mobile device and do the following on the terminal:

- On iSMP4, press 2 (on Move/3500 use) or scroll down to 1 BT PAIRING, then and press OK (green button at the bottom right of the terminal).
- Press number key 0 or OK and select 0 - Pair device.
- The terminal displays a code. Enter the code on the mobile device and press OK.

The terminal and mobile device (box solution) are now connected via Bluetooth. The Bluetooth icon appears in the terminal screen. An error will appear if something goes wrong with the pairing.

8. Merchant Card

A Merchant Card is delivered with the terminal. The card is used to activate the following functions in the payment terminal:

› Cancel the most recent transaction.

› Reconciliation (if protected).

› Terminal status printout.

› Offline transactions printout.

› Administration of operator ID.

› Changes to terminal parameters.

› Manual updating of terminal software.
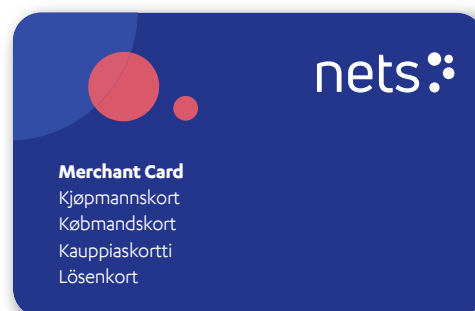
If you do not have a Merchant Card or if you have a defective card, you can order a new one from Nets Customer Service; please refer to Section 20 for contact telephone numbers.

NB: The Merchant Card makes it possible to cancel transactions performed on the terminal. Please ensure it is stored in a safe place.

9. Receipt Paper Rolls

Only standalone terminals require receipt rolls. Standalone payment terminals are those which are not integrated with an ECR. At Nets, the models are:

› Desk/3500

› Move/3500

› iCT250E

› iWL250B

› iWL250G

NB: Desk/3500 and iCT250E can be configured to be either standalone or integrated.

These terminals use receipt rolls – a consumable item – every time the terminal handles a payment transaction. To ensure that the correct types of receipt rolls are used, we recommend ordering them directly from Nets (refer to Section 9.1).

9.1   Ordering Receipt Rolls

To order new receipt rolls, visit from the Nets Webshop: shop.nets.eu

NB: Nets offers a subscription service for receipt rolls (refer to Section 9.1.1).

9.1.1   Subscription Service for Receipt Rolls

To avoid having to make a purchase of receipt rolls each time a merchant's payment terminal runs out of paper, Nets has set up a subscription service. Merchants can choose between a monthly or quarterly subscription and Nets will send 20 rolls at that chosen interval. The subscription is flexible, so if a merchant has enough paper rolls, they can ask Nets to pause the service and skip the next interval.

9.2   Inserting a Receipt Roll into the Payment Terminal

1. Lift the flap in the direction of the arrow.

2. To open the cover, slide it down-wards in the direction of the arrow.

3. Insert the receipt roll as shown. Then close the cover in the direction of the arrow. Approx. 5 cm. of the roll should stick out when the cover is closed.

The receipt printer is now ready for use.

Need a pole for the terminal?

Order accessories for your terminal by visiting the Webshop at: shop.nets.eu

10. Reconciliation

Whilst payment terminals do receive individual transactions, these are not paid to the merchant's account individually, but in a batch that contains all transactions for that business day. Reconciliation is a process in which the batch containing all transactions is closed and forwarded for processing from our Payment Service Provider (PSP). Simultaneously, the payment terminal will check for new parameters and the updates available to it from the PSP.

NB: The merchant must perform manual reconciliation of the terminal prior to it being used for the first time.

Reconciliation is typically run once-per-day, either at the end of the business day or shift. It can be triggered manually from the terminal (master terminal, if there are many in the store) or it can be timed to occur at a set interval. If the merchant has several terminals, only one terminal needs to be reconciled. Reconciliation of one terminal reconciles all the terminals under the same Merchant Number.

NB: If your payment terminal is integrated with an ECR, these functions must be called from the ECR and not directly from the payment terminal.

10.1 Manual Reconciliation

Reconciliation transfers transactions to the settlement account on the following business day. The terminal shall be reconciled every day. If seven days have elapsed since the last reconciliation, the terminal must be reconciled before it can be used.

Press MENU.

Press 6
or scroll down using the arrow key to Reconciliation and press OK.

The terminal prints out a report showing the number of transactions per card type and amount.

10.2 Automatic Reconciliation

Automatic reconciliation involves the terminal carrying out reconciliation at a fixed time every day. If the merchant has several terminals, automatic reconciliation will take place from the same terminal every time. Please contact Nets Customer Service (refer to Section 20) to activate automatic reconciliation.

10.3 Copy of Last Reconciliation Report

The terminal saves only the last reconciliation with accumulated transactions. A copy of 0,- reconciliation will not be stored. The same functionality is also implemented for a copy of Z-total. This is only implemented for standalone terminals. This function is used to extract a copy of the most recent reconciliation report.

	Press MENU.
Main menu	
3 Card services	Press 5
4 Optional Func	or scroll down to Copy Menu and press OK.
5 Copy menu	
Copy menu	
1 Last receipt	
2 Last reconc.	Press 2 or scroll down to Last Reconciliation and press OK. Wait for report.
3 Last Z-Total	

11. Reports

NB: If your payment terminal is integrated with an ECR, these functions must be called from the ECR and not directly from the payment terminal.

11.1 Transaction List

Used to print-out a list of all transactions stored in the terminal.

	Press MENU.
Main menu	
5 Copy menu	Press 7
6 Reconciliation	or scroll down to Operator Menu and press OK.
7 Operator menu	
Operator menu	
1 Reports	
2 Issuers	Press OK or 1.
3 Term status	
Reports	
1 Trans. list	
2 X-Total	Press OK or 1.
3 Z-Total	
Trans. list	
1 Print	Press OK or 1 to print.
2 Delete	
Select session	
Session 490: 2	Scroll down using the arrow key to the required reconciliation and press OK. The option All is shown at the bottom of the list and provides a print-out of all transactions stored in the terminal.
Session 489: 10	
Session 488: 1	
Print Pending	Wait for list.

11.2   X-Total

X-total is a report that shows the accumulated sales performed on the terminal since the last Z-total was printed. The stored figures are not reset when a X-Total is printed.

NB: Performing X-Total does not perform reconciliation. Print-out of an X-Total will not reconcile the terminal.

nets	Press MENU.
Main menu 5 Copy menu 6 Reconciliation **7 Operator menu**	Press 7 or scroll down to Operator Menu and press OK.
Operator menu **1 Reports** 2 Issuers 3 Term status	Press OK for Reports.
Reports 1 Trans. list **2 X-Total** 3 Z-Total	Press 2 or scroll down to X-Total and press OK.
Print Pending	Wait for report.

11.3   Z-Total

Z-total is a report that shows the accumulated sales performed on the terminal since the last Z-total was printed. The stored figures are reset when a Z-Total is printed.

NB: Performing Z-Total does not perform reconciliation. Printout of a Z-Total will not reconcile the terminal.

nets	Press MENU.
Main menu 5 Copy menu 6 Reconciliation **7 Operator menu**	Press 7 or scroll down to Operator Menu and press OK.
Operator menu **1 Reports** 2 Issuers 3 Term status	Press OK for Reports.
Reports 1 Trans. list **2 X-Total** 3 Z-Total	Press 2 or scroll down to X-Total and press OK.
Print Pending	Wait for report.

11.4   Copy of Last Z-Total

This function is used to extract a copy of the most recent Z-Total.

NB: Performing Z-Total does not perform reconciliation. Printout of a Z-Total will not reconcile the terminal.

nets	Press MENU.
Main menu 3 Card services 4 Optional Func **5 Copy menu**	Press 5 or scroll down to Copy menu and press OK.
Copy menu 1 Last receipt 2 Last reconc. **3 Last Z-Total**	Press 3 or scroll down to Last Z-Total and press OK.
Print Pending	Wait for copy.

11.5 Operator X-Total

The report shows all transactions carried out on the terminal for one or all operators since the last Operator Z-Total was printed. Figures are not reset when a list is printed.

NB: Performing X-Total does not perform reconciliation. Print-out of an X-Total will not reconcile the terminal.

nets	Press MENU.
Main menu 5 Copy menu 6 Reconciliation **7 Operator menu**	Press 7 or scroll down to Operator Menu and press OK.
Operator menu **1 Reports** 2 Issuers 3 Term status	Press OK for Reports.
Reports 2 X-Total 3 Z-Total **4 Op X-Total**	Press 4 or scroll down to Operator X-Total and press OK.
Op X-Total 1 Cur operator 2 All	Press OK to print out X-Total for a selected operator. Press 2 to print out X-Total for all operators.
Print Pending	Wait for report.

11.6 Operator Z-Total

The report shows all transactions carried out on the terminal for one or all operators since the last Operator Z-Total was printed. Figures are reset when a list is printed.

nets	Press MENU.
Main menu 5 Copy menu 6 Reconciliation **7 Operator menu**	Press 7 or scroll down to Operator Menu and press OK.
Operator menu **1 Reports** 2 Issuers 3 Term status	Press OK for Reports.
Reports 3 Z-Total 4 Op X-Total **5 Op Z-Total**	Press 5 or scroll down to Operator Z-Total and press OK.
Oper Z-Total 1 Cur operator 2 All	Press OK to print out Z-Total for a selected operator. Press 2 to print out Z-Total for all operators. **NB:** Requires Merchant Card.
Print Pending	Wait for report.

12. Operators

The Operator function is used to register and delete operators using the terminal. Operators are registered with a unique Operator ID (up to 10 digits) and name. Each operator must be registered on each terminal that they use. It is possible to access-protect operators by activating a four-digit code. The first operator to register with his/her code becomes the Master. The Master operator is the only person who can create or delete registered operators.

NB: If your payment terminal is integrated with an ECR, these functions must be called from the ECR and not directly from the payment terminal.

12.1   Create a New Operator

Use the instructions in this section to register a new operator on the payment terminal.

nets	Swipe the Merchant Card (with the magnetic stripe facing left).
Merchant menu 1 Issuers 2 EOT **3 Operator admin**	Press 3 or scroll down to Operator Admin.
Operator admin **1 Add Op.** 2 Delete Op. 3 Print ops.	Press OK to register a new operator.
Operator Id:	Enter operator number, then press OK.
Operator Name: ABC	Enter operator name. To use lower case letters, use key F4 (top-right of terminal) to toggle.
Operator PIN:	Enter the optional four-digit PIN, then press OK. If a PIN is not required, the field may be left empty; then simply press OK.
Operator added	

12.2 Delete Operator

Use the instructions in this section to delete a registered operator from the payment terminal.

nets	Swipe the Merchant Card (with the magnetic stripe facing left).
Merchant menu 1 Issuers 2 EOT **3 Operator admin**	Press 3 or scroll down to Operator Admin.
Operator admin 1 Add Op. **2 Delete Op.** 3 Print ops.	Press 2 or scroll down to Delete Operator, then press OK.
PIN + OK	Appears only if the registered operator has a PIN. Only the Master Operator can delete operators.
Operator ID:	Enter the operator number to be deleted, then press OK.
Delete Operator?	Press OK to confirm deletion of the operator.
Operator deleted	

12.3 Print Operator List

Use the instructions in this section to print a list of all the operators who are registered on the payment terminal.

nets	Swipe the Merchant Card (with the magnetic stripe facing left).
Merchant menu 1 Issuers 2 EOT **3 Operator admin**	Press 3 or scroll down to Operator Admin.
Operator admin 1 Add Op. 2 Delete Op. **3 Print ops.**	Press 3 or scroll down to Print List, then press OK to print a list of operators.
Print Pending	The terminal will print a list of all the operators registered on the terminal. If the registered operator has a PIN, the Master is marked with an *.

12.4 Use Operator ID

Operators are registered with a unique Operator ID (up to 10 digits) and name. Each operator must be registered on each terminal that they use. It is possible to access-protect operators by activating a four-digit code. The first operator to register with his/her code becomes the Master. The Master Operator is the only person who can create or delete registered operators. If the Master Operator is not known, a list of registered operators can be printed out.

The Operator ID can be used in five different ways:

1. Without operator – the terminal never asks for the Operator ID.
2. Z-Total – the terminal asks for the Operator ID before each Z-Total.
3. O report – the terminal asks for the Operator ID before each Operator X and Z-Total.
4. Reconciliation – the terminal asks for the Operator ID before each reconciliation.
5. Always – the terminal asks for the Operator ID before each transaction.

The above is set in the function parameters of the terminal.

13. Multiterminal

Multiterminal makes it possible for up to ten different merchants to use the same payment terminal. Each merchant will have their own account, receipt text and reports on the terminal. This is a solution that is suitable for e.g. companies sharing premises.

13.1 Multiple Merchants

On terminals with multiple merchants, the correct merchant must be selected before the functions on the terminal can be used.

To view a list of merchants on the display, press the MENU key or swipe/insert a card in the terminal. Use the arrow keys to scroll to/mark the correct merchant, then press OK. Confirm that the correct merchant has been selected by pressing OK.

Follow the below instructions to select a merchant and perform a purchase:

nets	Swipe the Merchant Card (with the magnetic stripe facing left).
Merchants Multi 1 Multi 2 Multi 3	Scroll to the required merchant by using the arrow keys.
Multi 2 ID 01 TID 12345678 OK or STOP	Press OK to confirm. Or press Stop to go back to the list of merchants.
Main menu **1 Purchase** 2 Purchase + cash 3 Card services	Press OK for purchase.
Amount + OK 100.00	Enter amount, then press OK.
Awaiting card Chip up	Ask the customer to enter their bank card.
APPROVED	Wait for receipt.

14. Administrative Tasks

14.1 Update Terminal Card Agreements

Card agreements are required to carry out purchases on the terminal. To accept Visa, Mastercard etc., the merchant is required to have an agreement with an acquirer. To see what types of cards are accepted, the list of card agreements can be printed using the terminal. To accept further cards, the merchant must contact the acquirer. If a new card agreement has been created, the card agreement list can be updated.

14.2 Download Card Agreements
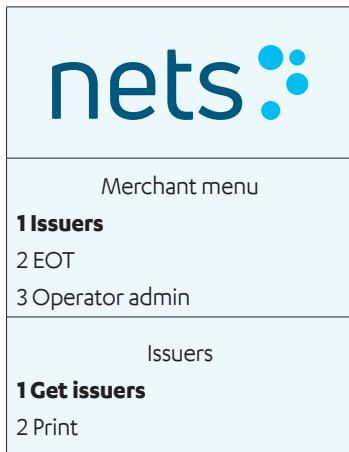
nets	Swipe the Merchant Card (with the magnetic stripe facing left).
Merchant menu **1 Issuers** 2 EOT 3 Operator admin	Press 1 or OK.
Issuers **1 Get issuers** 2 Print	Press 1 or OK to download your card agreements.

14.3 Print Card Agreements
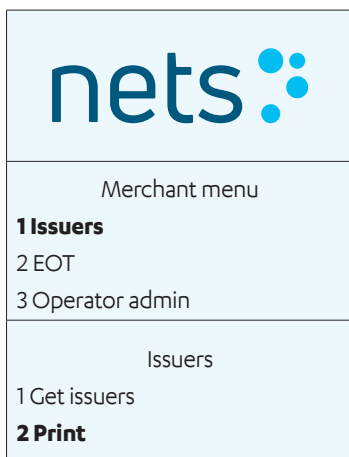
nets	Swipe the Merchant Card (with the magnetic stripe facing left).
Merchant menu **1 Issuers** 2 EOT 3 Operator admin	Press 1 or OK.
Issuers 1 Get issuers **2 Print**	Press 2 or scroll down to Print, then press OK.

14.4 Update Software

Software updates can be done manually from the payment terminal.

nets

Merchant menu
6 Parameters
7 Comms
8 Software

Software
1 Get software
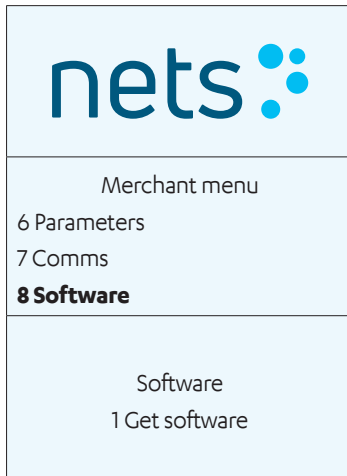
Swipe the Merchant Card (with the magnetic stripe facing left).

Press 8 or scroll to Software, then press OK.

Press OK to start the software update.

14.5 Identify Different Terminal Parameters

The different terminal parameters are listed and explained in Table 3 in Section 3.3 in this guide.

14.6 Update Terminal Parameters / Network Settings

Terminal parameters can be updated by going to the terminal Menu > Function Menu.
All the network-related settings are explained in Section 7.

15. Troubleshooting

NB: Merchants shall not change parameters if they are unsure about how to do so. Incorrect setting of parameters can cause system failures in the terminal, such as communications misalignment. Please contact Nets customer service for assistance; refer to Section 20.

Table 5: Problems & Solutions

Problem	Solution
When I swipe the Merchant Card, why do I get an "Incorrect Card" message on the terminal display?	You have used the wrong Merchant Card and will need to reset the card details. Go to: Menu > 9 > 7 ("Reset Merchant Card" option). The terminal will ask you to enter the Merchant Code (to receive this code, you must contact Customer Service). Enter the code into the terminal. The terminal will ask you to swipe your card. After swiping, you will be able to use the terminal again.
How do I reset the Merchant Card's binding?	Go to Menu > 8 > 9 > 1.
Who do I contact regarding purchases, reconciliation and backup solution which are more than 7 days old?	Please contact your bank.
Who do I contact regarding purchases, reconciliation, backup solutions from the past 7 days?	Refer to Section 20 for your Customer Service contact number.
Who do I contact when I have several terminals with the same error?	Please contact your network provider or shop/chain manager.
Who do I contact regarding Telenor broadband?	Refer to Section 20 for your Customer Service contact number.
How do I order credit card agreements?	Please contact the card acquirer.
How do I order automatic reconciliation ?	Refer to Section 20 for your Customer Service contact number.
• Not connected to network • No contact with centre • I only get backup solutions	**General:** If the terminal cannot establish contact with the network, restart the terminal by holding down the yellow "Clear" button and the full stop/comma button simultaneously. Let go and wait until the terminal starts up (approx. 30 seconds). Try again. **GPRS:** In order for the terminal to be online, the signal strength (with antenna signal) must first be displayed at the top of the display. If the signal or antenna do not show after restarting, contact the network provider to check coverage and subscriptions/SIM cards. Alternatively, call Nets' Customer Service for additional troubleshooting of the terminal. **Ethernet/Broadband:** Check that the Ethernet cable is connected to the terminal and the network socket in the wall, switch or router/modem. Contact your network provider to check the network, or contact Nets' Customer Service for troubleshooting the terminal.
Problem	Solution

The terminal freezes. None of the keys work	Restart the terminal by holding down the yellow "Clear" button and the full stop/comma button simultaneously. Let go and wait until the terminal starts up (approx. 30 seconds). Try again. If the terminal is still frozen, remove the power cable or battery and ensure that the display goes dark. Replace the power cable/battery. If the terminal is still frozen, contact Nets' Customer Service.
The terminal stopped working when we were carrying out a transaction. Did the purchase go through?	Take a copy of the last transaction (Menu – 5 – 1) to see if the purchase went through OK. If this is still uncertain, call Nets' Customer Service.
Problems with the terminal modem	Check whether the modem is lit up. Check that all cables are in the right position on the terminal, in the modem and in the wall socket. Take out the line and power cables on the modem. Replace the line in the modem first (the one with a clip). Then replace the power cable. Contact Nets' Customer Service if required.

16. Back-up

16.1 Electronic Offline Transaction (EOT)

If errors occur in the communication between the terminal and Nets, an electronic backup solution can be used for BankAxept cards. The terminal prints a receipt with a signature line.

The procedure for an EOT backup solution is as follows:

1. Ask the customer to sign the receipt.
2. Check the customer's identity.
3. Add the security code from the bank card to the receipt – both letters and numbers (e.g. ABCD 123).
4. For purchases with a value of more than NOK 1,500, call Nets' Customer Service to authorise the amount (refer to Section 20).
5. Note the Authorisation Number in the Merchant field of the receipt.

The merchant must keep the receipt with the customer's signature and be able to produce it when required.

The amount is transferred to Nets automatically when the terminal is up and running again. Do not provide cashback when the backup solution is used.

Backup solution receipt:

```
****************************
Signature-based payment
MUST BE COMPLETED
****************************
Nets Norway AS
H. Martinsensvei
NO-0978 OSLO

Bax: 1234567-123456
BankAxept 12345678910-3
Expiry: 11/2023
AID: D5780000221010
Service code: 601


05/07/2020 10:14
Sequence no: 901469
Resp.: Y3

Not connected to network

AUTHORISED WITH
SIGNATURE

Amount =                  1.00

Bank card
verification code:

--------------------------
Signature:

****************************
CARD CHARGED
****************************


----------- Tear here ------------
Nets Norway AS
H. Martinsensvei
NO-0978 OSLO

Bax: 10139902-125442
BankAxept ******05040-3
AID: D5780000221010
05/07/2020 10:14
Sequence no: 901469
Resp.: Y3

Amount =                  1.00

AUTHORISED WITH
SIGNATURE
```

16.1.1   Print EOT

nets
Merchant menu
1 Issueras
2 EOT
3 Operator admin
EOT
1 Print
2 Send to host
3 Delete

Swipe the Merchant Card (with the magnetic stripe facing left).

Press 2
or scroll down to EOT and press OK.

Press OK to start printing the terminal's stored backup solutions.

16.1.2   Submit EOT

nets
Merchant menu
1 Issueras
2 EOT
3 Operator admin
EOT
1 Print
2 Send to host
3 Delete

Swipe the Merchant Card (with the magnetic stripe facing left).

Press 2
or scroll down to EOT and press OK.

Press 2
or scroll down to Send to host and press OK to submit the terminal's stored backup solutions.

17. Servicing

This section details how a merchant shall submit a payment terminal for service or termination.

17.1 Swap Service

If a rental terminal is defective, please call Customer Service for assistance (refer to Section 20). Depending on the nature of the defect and the merchant's agreement, merchants will either receive a new terminal from Nets or assistance from a Nets technician.

If receiving a new terminal, the return label(s) from Nets Customer Service shall be used and the package(s) delivered to Postnord.

NB: If a terminal is defective, it shall not be sent for repair until the error has been reported to Nets Customer Service. Merchants have the possibility to add swap services to their agreement for up to four years. Prior to returning the terminal, the merchant shall ensure that it has been reconciled. The terminal must be packaged securely. If several terminals are being returned, they must be packaged separately. Remember to include all associated cables and equipment. ADSL modems shall not be returned to Nets.

17.2 Terminations

When terminating the lease of a Nets terminal, the terminal must not be returned to Nets until the merchant has terminated the existing lease agreement.

Merchants who wish to buy/rent a terminal from a different supplier must first terminate their Nets lease agreement before returning the old terminal to Nets. Until the termination notice has been received by Nets, the lease agreement will continue to run, and the merchant will be invoiced accordingly. The merchant must also ensure they receive a written confirmation from Nets on the lease agreement termination. A return label will be sent to the merchant via e-mail when the termination is completed in the Nets system.

NB: Ensure that the terminal has been reconciled before returning the terminal. Pack the terminals securely and separately. Remember to include all associated cables and equipment. The return label(s) that merchants receive from Nets Order Handling/Cancellation must always be used when returning payment terminals. The package(es) must then be delivered to Postnord.

18. Security

18.1 PCI PTS Compliance

The Payment Card Industry PIN Transaction Security (PCI PTS) is a security standard that applies to all PIN entry-based payment terminals and other hardware that manage PIN codes. Nets will always deliver PCI PTS-approved payment terminals at the time of delivery.

18.2 Guidance for PIN Entry

The PCI Security Standards Council specifies International Standard ISO9564 for protection against fraudulent observation of the PIN during PIN entry. To comply with this standard, the terminal may be supplied with either a factory-fitted privacy shield or as a privacy shield accessory (to be fitted by the merchant prior to use). If you require a privacy shield and one has not been supplied, please contact Nets Customer Service (refer to Section 20) for assistance.

 Newer portable terminals will be PCI-PTS compliant without a PIN shield when used in a handheld environment. For example, Move/3500 and ISMP4 do not have PIN shields. However, they must not be placed on a stack.

If the payment terminal from Nets is delivered without a factory-fitted privacy shield or as a privacy shield accessory in the box, the terminal must be operated as a handheld device. This means that the customer must be advised by the merchant to carry out the following:

› Hold the device in hand during PIN entry.
› Keep a distance from others during PIN entry.
› Use their body/hand to block the view of the keypad during PIN entry.
› Ensure that no video cameras/surveillance equipment is directed towards the keypad during PIN entry.

Additionally, the merchant shall advise the customer of any suspicious behavior exhibited by others before or during PIN entry.

18.3 Periodical Inspection of Terminals

Within a merchant's equipment, the ultimate responsibility for the protection of customer data lies with the merchant. We advise merchants to focus on the implementation of the core PCI DSS 9.9 requirements that came into effect from June 30th 2015, where the intention is to ensure that merchants are better prepared against skimming attacks.

18.3.1 Prevention of Skimming

In line with PCI best practices on skimming prevention, Nets highly recommends that the merchant performs the following:

› Upon receipt of a new terminal, and on a regular basis, checks the terminal(s) for any signs of obvious tampering (e.g. broken seals over access cover plates or screws, odd/re-arranged cabling, or unknown/suspicious features)
› Keeps a detailed list of the terminal(s) on a regular basis, with photos taken for comparison
› Keeps the terminal(s) out of the customer's reach - both during opening and closing hours
› Never accept delivery or installation of a new terminal from any unauthorized Nets personnel
› Only allows privileged access to the terminal(s) to independently-verified and trustworthy personnel
› Call Nets Customer Service (refer to Section 20) immediately if in doubt of the terminal(s) integrity

Refer to the following website for further information on skimming prevention - https://www.pcisecuritystandards.org/documents/ Skimming_Prevention_At-a-Glance_Sept2014.pdf

19. Cleaning

19.1 Terminal Maintenance

To avoid damaging the payment terminal, it is important that the below cleaning advice is followed. Damage caused to a terminal through an incorrect cleaning method is not covered by warranty.

Please use the following methods to clean the various parts of the payment terminal:

Keypad: Gently wipe with a soft, dry cloth slightly impregnated with 70% isopropyl alcohol.

Display screen: Gently wipe with a soft, damp cloth slightly impregnated with soap.

Casing: Gently wipe with a soft, damp cloth slightly impregnated with soap.

To avoid damaging electrical components, it is important not to spray any cleaning agent directly onto the terminal. When cleaning, a functional problem or tamper alert may be triggered if too much liquid is used i.e. if liquid seeps inside the terminal.

70% isopropyl alcohol may be used on the keypad only. It should be applied via a soft cloth. Wiping should be done gently. Excessive wiping of the keypad may cause cosmetic damage over time.

70% isopropyl alcohol must not be used on the display screen or casing. These components may only be cleaned with a soft, damp cloth that is slightly impregnated with soap.

The following products must not be used on any part of the terminal: solvents, bleach, hydrogen peroxide, thinner, trichloroethylene or ketone-based solvents, glycol ether or thymol-based agents, detergents or abrasive products.

Regular cleaning of the terminal will not completely remove the risk of virus infection. Good hand hygiene following shop visits is recommended. **Contactless payment, whenever possible, is advised.**

It is not recommended to use overlays on the terminal e.g. covering the terminal with clear plastic bags or plastic film. The Payment Card Industry Security Standards Council (PCI SSC) does not endorse the use of overlays, as doing so can interfere with the entering of payment card/PIN data:
https://blog.pcisecuritystandards.org/maintaining-pos-device-security-and-cleanliness

20. Customer Service Contacts

Norway
+47 915 08 989

Finland
+358 600 414 243

Denmark
+45 8877 7002

Sweden
+46 8 60 99 200