



# adyen NYC1-SCR Card Reader User Manual

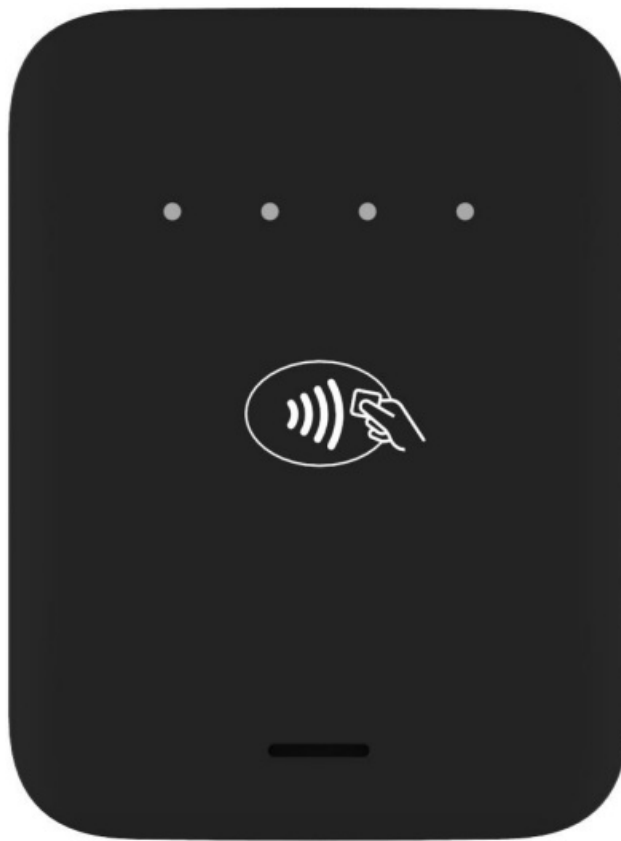
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# Adyen

**adyen NYC1-SCR Card Reader**



## GENERAL VIEW

1. LEDs indication for Contactless transaction / LEDs indication for device status
2. On/Off button (Bluetooth pairing and cancel button)
3. Rear Pads (USB and charging)
4. Opening for inserting smart card
5. Speaker
6. Contactless reader
7. USB port
8. Opening for magnetic card



Figure 1

## GETTING STARTED

### Charging form USB adapter

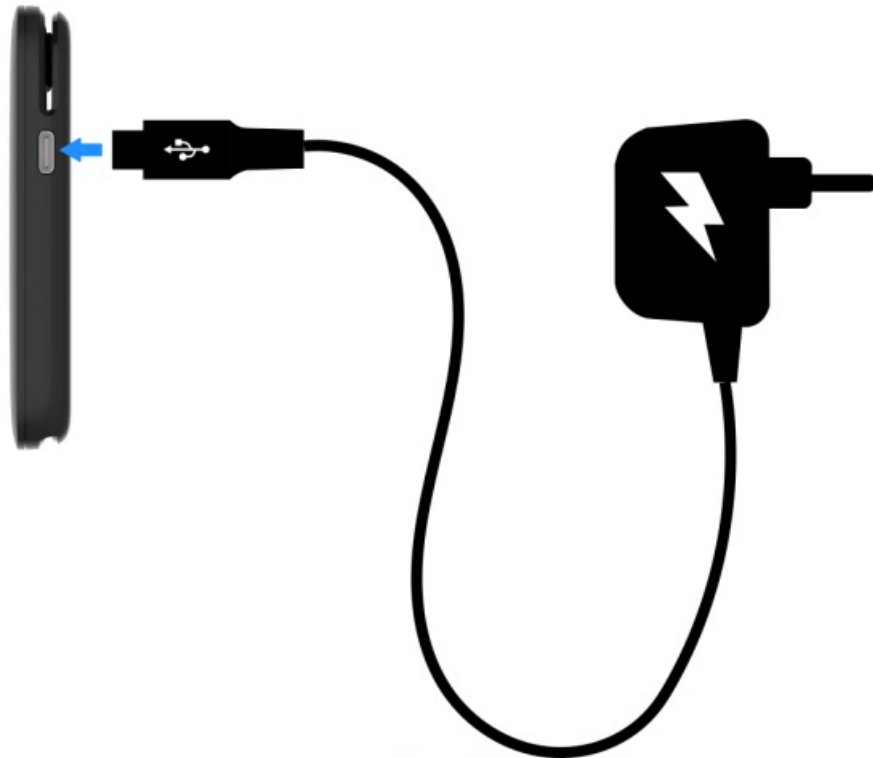


Figure 2

## PERIODIC INSPECTION AND MAINTENANCE

The following inspections must be performed on a regular basis after initial receipt and installation of NYC1/NYC1-

SCR:

- There are no visual indications for trying unauthorized opening of the device
- There are no unusual wires connected to the ICC acceptor or any of the ports on the terminal.
- There is no shim device in the ICC acceptor slot.
- The terminal serial number (on the label) corresponds to the one in the inventory paperwork

## OPERATION MODES



For start operating with NYC1/NYC1-SCR needs to be paired to another Bluetooth BLE device with installed application. For downloading the latest SDKs for iOS, Android and Windows please contact with your distributor.








**Application download mode** – to enter in “FW/AP download mode” on the NYC1/NYC1-SCR, the power button must be maintained pressed and USB cable plugged. A characteristic sound is played and the first white LED will start to light. The power button must be held until the second white LED is lit on, then is releasing the power button. When device is in Boot Loader/Application download mode will be played characteristic sound.

**System mode** – to enter in “SYSTEM MODE” on the NYC1/NYC1-SCR, the power button must be maintained pressed and USB cable plugged. A characteristic sound is played and first white LED will start to light. The power button must be held until the third white LED is light on, then is releasing the power button.

**Clear Bluetooth pairing information** – to enter in “Clear Bluetooth Pairing Info” on the NYC1/NYC1-SCR, the power button must be maintained pressed. A characteristic sound is played, and forth white LED will start to light, then is releasing the power button. When pairing info is cleared will be played characteristic sound.

### Status LEDs

| LED indication  |                                 |
|---|---------------------------------|
|  | Green LED continuously light on |
|  | Green LED flashing              |

| LED indication  |  | Description   |
|---|--|---|
| Device operating  |  |   |
|    | No indication  | Device is turned off                                  |
|    | No indication (Depends of Application)   | Device is turned on                                   |
|    | Second white LED lights up constantly  | Please refer to "Application download mode"           |
|    | Third white LED lights up constantly   | Please refer to "System mode"                         |
|    | Forth white LED lights up constantly   | Please refer to "Clear Bluetooth pairing information" |
| System errors   |  |   |
|  | After power on the device, on front side first LED light continually and fourth LED blinking | Device is TAMPERED                                    |
|  | Second LED light continually and fourth LED blinking   | Device error (General Exception)                      |

## Bluetooth Pairing

Turn on NYC1/NYC1-SCR, attached it to PC via USB cable. When device is connected to PC, will create virtual COM port. Check on device manager on which port is connected. After that run the special application for PC. Press "Search" button on the app, and in right side will be show all available COM ports. Select on which is connected device, then press "Connect to device". From Bluetooth management on mobile device (equipped with BLE 4.2) select connect to NYC1/NYC1-SCR, then on mobile device screen will be show PASSKEY. White LEDs will start to light one by one continually, on special app will be show Passkey, if they are same press "On/Off" two times on NYC1/NYC1-SCR to confirm , then special app return message "THE DEVICES ARE CONNECTED" when on each device is confirming pairing). If Passkey is being different press "On/Off" button one time on NYC1/NYC1-SCR to cancel pairing.

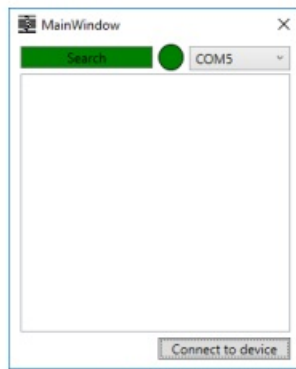


Figure 3

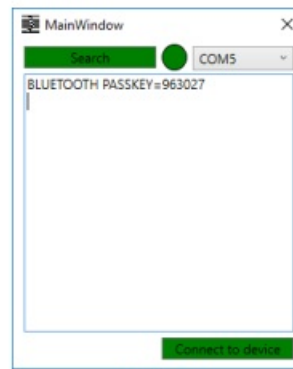


Figure 4

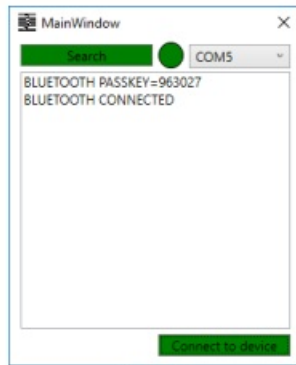


Figure 5

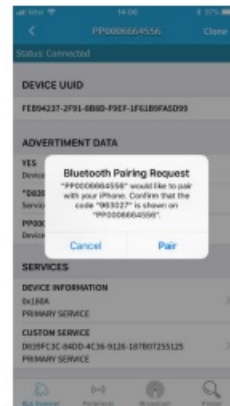


Figure 6



Figure 7

## Update Firmware and Application with using Firmware API

Loaded Firmware and Application on NYC1/NYC1-SCR can be updated via Application which is using Firmware API. After pairing NYC1/NYC1-SCR to COTS device via Bluetooth, as described on “Bluetooth Pairing”. Run the Application\* on COTS (smart device) and press “Update device firmware

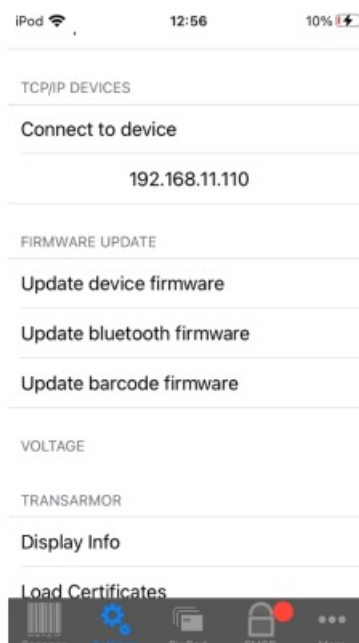


Figure 8

### **Magnetic cards reading**

The NYC1/NYC1-SCR has a built-in magnetic card reader. The card reader incorporates a (3) track magnetic read head, requiring a single swipe to read field data from all three tracks. The magnetic reading head faces down. When swiping the card into the reader, the magnetic stripe must be facing up as shown in the figure below. Keep the edge of the card flat on the inner base of the reader to ensure that the magnetic stripe passes over the reading head evenly.



Figure 9

### **Contactless cards reading**

The contactless card transaction procedure can vary depending on the application loaded on the NYC1/NYC1-SCR. Verify the proper procedure with your application provider before performing a contactless card transaction. In order to use the Contactless card reading function, special software must be used. Please contact your distributor in order to get the latest demo application and SDK.



Figure 10

### Smart cards reading

The smart card transaction procedure can vary depending on the application loaded on the NYC1/NYC1-SCR. Verify the proper procedure with your application provider before performing a smart card transaction



Figure 11

### REVISION HISTORY

| Version | Data       | Change description                         |
|---------|------------|--|
| 1.0.0   | 13.06.2022 | Release version                            |
| 1.1.0   | 02.08.2022 | Updated section “SERVICE AND SUPPORT”      |
| 1.2.0   | 23.09.2022 | Updated section “REGULATORY”               |
| 1.3.0   | 14.10.2022 | Added NYC1                                 |
| 1.4.0   | 16.11.2022 | Updated section “TECHNICAL SPECIFICATIONS” |
| 1.5.0   | 17.11.2022 | Updated section “REGULATORY”               |

### TECHNICAL SPECIFICATIONS

|           |   |
|-----------|---|
| Processor | ARM Cortex® M4 Security Microcontroller |
|-----------|---|



|  |   |
|--|---|
| <b>Memory</b>  | 32KB I&D-Cache<br>1MB Internal RAM<br>8KB OTP   |
| <b>Application Memory</b>  | 8MB Serial Flash  |
| <b>Keypad</b>  | <ul style="list-style-type: none"> <li>• ON / OFF key</li> </ul>  |
| <b>Magnetic Card Reader</b><br><b>(For MSR version)</b>          | <ul style="list-style-type: none"> <li>• 3-track bi-directional reading</li> <li>• ISO 7810, 7811 and 7813</li> </ul>   |
| <b>Smart Card Reader</b>   | ISO7816, EMV L1 certified   |
| <b>Contactless Card Reader for payment applications (option)</b> | <ul style="list-style-type: none"> <li>• AMEX ExpressPay</li> <li>• Discover D-PAS</li> <li>• MasterCard Contactless</li> <li>• VISA PayWave</li> <li>• China Union Pay</li> <li>• JCB</li> </ul>       |
| <b>Contactless Card Reader</b>                                   | <ul style="list-style-type: none"> <li>• NFC-A/ISO 14443 Type-A</li> <li>• NFC-B/ISO 14443 Type-B</li> <li>• NFC-F/Felica</li> <li>• NFC-V/ISO 15693</li> </ul>   |
| <b>Battery</b>   | Rechargeable lithium-ion polymer battery 3.8V, 500mAh   |
| <b>Connectivity</b>  | <ul style="list-style-type: none"> <li>• USB (from USB type C port or rear pads)</li> </ul> – Device <ul style="list-style-type: none"> <li>• BLE 5.1</li> <li>• UART pass through rear pads</li> </ul> |
| <b>Audio indication</b>  | Speaker (power 0.5W)  |
| <b>OS compatibility</b>  | iOS, Android, Windows   |
| <b>Reliability</b>   | <ul style="list-style-type: none"> <li>• 500 000 chip card cycles</li> </ul>  |
| <b>Certifications</b>  | CE Mark, UCKA Mark, FCC, EMV Level 1, EMV Level 2, EMV Level 1 Contactless, PCI PTS 6.1   |
| <b>Dimensions (LxWxH), mm</b>                                    | 94 x 70 x 13  |
| <b>Weight, g</b>   | 95  |

|                      |   |
|----------------------|---|
| <b>Environmental</b> | <div> <div>o</div> <div>o</div> </div> <p>Operating: -10 C to +45 C / 5 to 90% RH</p> <div> <div>o</div> <div>o</div> </div> <p>Storage: -20 C to +70 C / 5 to 90% RH</p> |
| <b>Power Supply</b>  | <ul style="list-style-type: none"> <li>• 5V through USB C</li> <li>• 5V through rear pads</li> </ul>  |
| <b>Accessories</b>   | <ul style="list-style-type: none"> <li>• Docking station</li> </ul>   |

**The specification can be changed without any notice.**

Use only original equipped cable USB-A to USB-C. Use only approved USB adapters. The minimum requirements of USB adapter are 5V/500mA. Waste Electrical & Electronic Equipment The symbol means that according to local laws and regulations your product shall be disposed of separately from household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

## CARE, MAINTENANCE AND WARRANTY

- Keep the NYC1/NYC1-SCR side of the reach of small children.
- Keep the NYC1/NYC1-SCR dry. Precipitation, humidity and liquid contain minerals that will corrode electronic circuits.
- Do not use or store in dusty or dirty areas.
- Do not drop or knock NYC1/NYC1-SCR.
- Do not open the NYC1/NYC1-SCR. Only qualified personnel can open the device and make repair.
- If the NYC1/NYC1-SCR is not working, please contact with your dealer. • Forbidden is allowing unqualified personnel to service your NYC1/NYC1-SCR!

## SERVICE AND SUPPORT

For NYC1/NYC1-SCR problems, product service, and repair information, contact your local Adyen representative or service provider.

- International – Contact your local Adyen distributor

### Service Returns

All customers, please contact your local Adyen NV representative or distributor for assistance with your service, return, or replacement.

## FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not

installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.


**Caution:** Any changes or modifications to this device not explicitly approved by the manufacturer could void your authority to operate this equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

**RF Exposure**

Information The device has been evaluated to meet the general RF exposure requirements. The device can be used in portable exposure condition without restriction.

**Documents / Resources**

|   |  |
|---|--|
|  | <p><a href="#">adyen NYC1-SCR Card Reader</a> [pdf] User Manual<br/>NYC1, 2A7UQ-NYC1, 2A7UQNYC1, NYC1, NYC1-SCR, NYC1-SCR Card Reader, NYC1-SCR, Card Reader, Reader</p> |
|---|--|