

1. Ingenico 7780 description:

The i7780 is a portable (Bluetooth technology) point of sale electronic payment terminal designed to process debit, credit and smart card purchases. It is highly secured, EMV level 1 and 2 certified.

The i7780 communicates with the acquirer through its base via RS-232 port, the telephone or Ethernet network. The i7780 and the base communicate through the Bluetooth link, or via direct contact. A network can be set up, with one base managing up to 7 terminals at the same time. Various peripherals can be connected to the base through its RS-232 ports.



1.1. Display:

A 4 line x 16 character LCD graphic display, with a back light.

1.2. Keypad:

18 keys, with a back light. The special function keys are:

- Programmable function keys <F1>, <F2> and <F3> for navigation and access to various i7780 functions and the system and application menus.
- Paper Feed key is used for a printer paper feed (20mm).
- The green <ENTER> key confirms the data entered or displayed. It also powers on the i7780.
- The red <CAN> key cancels the current function and returns the terminal to the idle state. It also powers off the i7780 if it is not docked on the base.
- The yellow <CORR> key corrects invalid data entry.
- The blue <ADMIN> key is used to access the terminal administration function menu.

1.3. Magnetic Stripe Card Reader:

The i7780 features a bi-directional reader capable of reading 3 tracks simultaneously (or track 1 and 2 on some models). The reader is located on the right-hand side. The card can be swiped from the bottom to the top, or from the top to the bottom. The magnetic stripe on the card has to face down and point toward the keypad.

The card has to be swiped at uniform speed and pressure, ensuring that the card remains in contact with the bottom of the track throughout the entire swipe action.

1.4. Smart Card Reader:

Insert the smart card horizontally into the slot on the front of the i7780, the microchip facing up, and leave it in the reader throughout the transaction.

The i7780 has EMV level 1&2 approvals and complies with the ISO 7816, Sync and Async T=1 & T=0.

1.5. Printer:

The i7780 integrates a quiet, high speed, “easy-load” style thermal printer with graphics capability.

1.6. Battery:

Rechargeable and easily replaceable Li-Ion or Ni-MH battery pack.

1.7. SAM Connectors:


Three SAM card connectors are located on the bottom of the i7780. The SAM (Secure Access Module) supports smart card chips necessary for applications such as loyalty.

1.8. The Base

The i7780 communicates with its base via Bluetooth radio link, or through the contacts (connect mode) which is useful when loading large amounts of data, or when a Bluetooth link is unavailable.

The i7780 works with either dial radio base or versatile base. The versatile base has a Plug-It slot to add a Plug-It module with additional communication port.

The base station recharges the battery pack and includes the following communication ports:

- **RS232-1, RS232-2 (COM1/3, COM2 on dial radio base)**
Two RS-232 serial communication links for customer applications download and for the communication with external peripherals (speed 300 to 115200 bps). The RS232-1 (or COM1/3) provides power for external devices.
- **DIAL LINE port** 
A V34 / 33600 bps (asynch. and synchr.) modem that supports fast connect and busy line detection.
- **TELEPHONE port EXT LINE (dial radio base only):**
The telephone port allows sharing of the telephone line with other devices such as a fax machine or telephone.
- **ETHERNET port PLUG-IT (on versatile base only):**
The Ethernet port allows the i7780 to connect to a local network.

2. i7780 Packaging Content:

1. The i7780 hand held terminal.
2. The battery pack.
3. Thermal printer paper, one roll.
4. The base (optional versatile, dial radio or charging).
5. The plug-it module (optional, with the versatile base).
6. The power supply (optional, with the base only).
7. The phone cable (optional, with the dial radio or versatile base only).

8. The cable securing plate and a screw (optional, with the base only).

9. The holster (optional).

10. This installation guide.

3. Installation procedure:

Place the base on a clear, flat surface near an electrical and telephone sockets. The ideal location is in the center of the zone to be covered with a large open area around. **Do site survey as described in the document P/N 0032-07110-0109 (or its latest revision) to determine the number of bases and their location to ensure optimal radio coverage.**

The antenna is inside the base, running along its left side.

The i7780 hand held and the base must be protected from high temperature, vibrations, dust, dampness and electromagnetic radiation (computer screen, microwave oven, anti-theft barrier etc.). Equipment such as cordless and cellular phones can emit harmonics that could disturb the terminal at 2.45 GHz.

Do not place the base near a great vertical metal plane (doors of refrigerator, large home appliances, vending machines).

Ensure the base or the terminal is more than 3 m (around 10 feet) from any microwave oven in use.

Do not place base or hand held terminal on a metal surface.

Do not put your hand under the printer during communication, as the range is greatly reduced.

If there are several radio bases installed, position them at least 2 meters (around 6.5 feet) from each other.

Do not install base within 2m (6.5 feet) of wireless router.

Ensure that the terminal is seated securely on the base.

Operating temperature+5°C to +40°C

Humidity 20% to 90% without condensation

Storage temperature-10°C to +60°C

3.1. Battery Set up and Charging:

The i7780 is supplied with a removable, rechargeable NiMH or Li-Ion battery. Only use the battery pack supplied with your terminal.

To charge the battery, place i7780 on the base (the base must be powered up). **Do not place battery on the base by itself, the battery must be charged while installed in i7780.**

Ensure that the hand-held is seated securely on the base.

Use the power adapter supplied with the i7780. Many adapters can appear similar and will plug into the i7780 base but will not work properly causing erratic behavior, poor charging or even damage to the unit.

Always charge battery at room temperature.

Charge the battery for 3 hours before it is used the first time. Full charging time after that is 2 hours. The battery will reach its full capacity after 3 to 4 charge/discharge cycles.

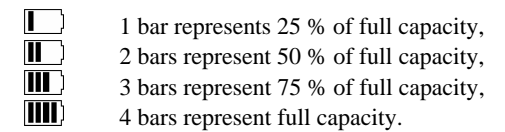
Note that the battery will recharge only if necessary.

Furthermore, the battery has internal temperature control so it never exceeds 50°C.

The i7780 with a fully charged battery can execute up to 200

transactions (depending on the ticket size and transaction duration).

The battery status is updated on i7780 display:



3.2. Installing the Battery:

Turn off the i7780 terminal or take it off its base and wait until it turns itself off before handling the battery pack.

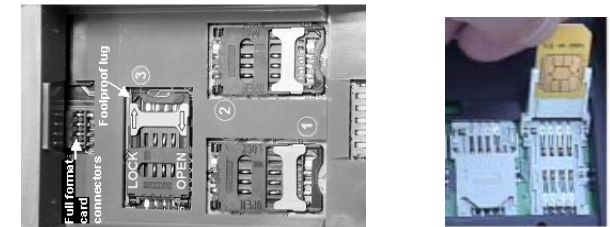
Hold the battery with the connectors facing downwards, do not touch the contacts on the battery or i7780.



Insert two plastic teeth in the gaps on the i7780 case, place the battery in the cavity and press the handle until a click is heard.

3.3. SAM Installation:

Wait till the i7780 turns off and remove its battery (do not touch the contacts on the battery or the i7780). Unlock the SAM connector by sliding the metallic latch in the direction of the OPEN arrow. Lift the SAM cover upward and insert the chip as shown on the picture below. Swing the cover down and slide the latch into locked position (the LOCK arrow). Put the battery back in the i7780.



3.4. Changing The Plug-It Module:

1. Turn off the versatile base.
2. Remove the cable from Plug-It module.
3. Remove the screw using Philips screwdriver.
4. Take the Plug-It module out.
5. Put in the new Plug-It module and secure it with a screw.

