• **DIAL LINE and PHONE CONNECTIONS**

The I7770 ports marked **LINE** and ☎ are identical.

Use either one of these ports to connect the Ingenico 7770 modem to the telephone line: plug the one end of a telephone cable into the port, and connect the other end of a cable to a wall telephone jack.

Use remaining port to connect the phone, fax or other device that will share the same phone line with Ingenico 7770: plug the one end of a telephone cable in the available Ingenico 7770 port (**LINE** or ☎), and plug the other end of the cable in a device.

• **PERIPHERAL/HOST CONNECTION**

Turn off the Ingenico 7770 base. Connect the serial cable to the base port marked **COM2** or **COM3**. Plug the other end of the serial cable to the device (PC, check reader etc.). For detailed instructions, ask the equipment supplier.

• **POWER CONNECTION**

Plug the power adapter radial jack into the Ingenico 7770 base port marked ⎓ . The green light on the front right hand side of the base indicates the power is on.

Attach the cable securing plate and fix it with a screw.

### 3.6. Changing the printer paper:

When the red stripe on a paper appears, replace the paper: Remove the Ingenico 7770 from the base and wait till it turns off, do not touch the printer parts. Be aware of the sharp paper cutter.

1.  Push the button on the paper compartment cover toward the back and lift the cover.
2.  Remove the empty paper roll and insert the new roll, the paper protruding from UNDERNEATH the roll.



3.  To close the cover, press it until it snaps. Press the "Paper feed" key to verify that paper feeds properly.

### 4. Normal Operation:

To extend the battery life, the Ingenico 7770 hand held terminal goes into a stand-by mode when it is not on its base. To quickly power on the hand held terminal:

•  Press the green <ENTER> key, or
•  Place the hand held briefly on the base.

The symbol ⚡ in the upper left hand corner of the screen indicates that the hand held terminal is assigned to

its base and it is in the range (the search phase typically lasts less than 10s).

The message ■ -**RANGE**- ■ appears when the radio link is not available:

•  The hand held terminal is out of range.
•  The terminal is scanning for the base while initiating communication.
•  The hand held terminal is configured with the wrong base s/n. Go to the SYSTEM MENU, select the "RADIO CONFIG" and run "MOD RADIO PARA".
•  The radio base is not powered up.

The message ■-**BUSY**-■ appears when the hand held terminal tries to connect to a base while it communicates with another terminal. Wait until the base becomes available.

The message **FULL** appears when the maximum number of terminals configured for a base is exceeded.

Remove the extra terminals from the network, power off the radio base and turn it back on to reinitialize.

### 5. Cleaning procedure:

The Ingenico 7770 must be off for all cleaning operations. Do not clean the I7770 with water but with a dry or only slightly damp cloth. Do not use solvent, detergent or abrasive products. If the terminal has the battery recharging or communication problems (the message "No tone" is printed out), clean the golden contact under the terminal with a damp cloth. Do not scratch or scrape the surface of the contacts.

### 6. Technical specifications:

The Ingenico 7770 uses a low power (20dB, ≤100mW) radio technology with frequency hopping in the 2.45Ghz ISM band. Ingenico 7770 range is around 100m (open field).

### 6.1. Power supply:

The power adapter is mainly used for charging the internal battery.

•INPUT ...................... AC 120V 60Hz
•OUTPUT........ DC 18V 0.9A 16.2VA



### 6.2. Thermal Paper Specification:

•  Single ply thermal sensitive – POS or facsimile grade.
•  Basis Weight:
   (lb/rm 17 ins. X 22 ins. - 500) --- 14.5 ± 5%
   (GSM) --- 55 ± 5%
•  Caliper ..................................... 2.4 ± 0.2 Mils or 60 ± 5 Microns
•  Brightness ................................................................ Min. 85%
•  Smoothness (Bekk Minimum) ................................................. 300 s
•  Roll Width .......................... 2.25 ± 0.020 in (58 mm ± 0.5 mm)
•  Roll Diameter .................................... 2.0 in (51 mm) maximum
•  Roll Core ID ..................................... 0.500 in (13 mm) nominal
•  Roll Core OD .................................... 0.625 in (16 mm) nominal

For the best performance, Ingenico recommends the following sources/brands:

    KANZAKI............................P300
    APPLETON ....................T1012A

    KOEHLER..............................K55

Thermal paper should NOT be exposed to vinyl, plastics, adhesives, shrink-wraps, wet-toner copies or certain carbon papers, office light UV light, high humidity and temperature (above 65%, 25C) for long periods of time.

### 7. If you experience problems:

Call one of the customer service centers listed below:

| **In Canada:** | **In the USA:** |
|---|---|
| RBA Inc. | Ingenico Inc. |
| 3190 Orlando Drive | TotalCARE |
| Mississauga, Ontario | 1101 Mansell Road |
| L4V 1R5 | Atlanta, GA 30076 |
| 1-800-387-3938 | 1–800–435–3014 |
| or (905) 672–1048 | |

# Ingenico 7770
# Installation Guide

DIV50003A

# 1. Ingenico 7770 description:

The Ingenico 7770 is a fully self-contained, portable point of sales electronic payment terminal designed to process the debit, credit and smart card purchases.

Ingenico 7770 features a new ergonomic design with a friendly interface: an easy loading high-speed printer, a graphic display, back lit keyboard and easily accessible battery (for a fast installation and replacement) with an intelligent battery charging management. The Ingenico 7770 is environment friendly with a light packaging, recyclable plastic and non-polluting batteries.

The Ingenico 7770 communicates with the bank through its base via the telephone network. The hand held terminal and the base communicate through the 2.45 GHz radio link, or via direct contact. A network can be set up, with one base managing up to 7 terminals at the same time. The base allows connection to various peripherals through its RS-232 ports.

The I7770 features a secure, multi-application operating system (UNICAPT™ technology) permitting several applications to run independently on the same terminal.

Paper Compartment

MSR Reader

CANCEL Key

CORR Key

ENTER Key

Smart Card Reader

Navigation keys

Paper Feed Key

Base contacts

The Ingenico 7770 has the following features:

## 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 Ingenico 7770 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 Ingenico 7770.
- The red <CAN> key cancels the current function and returns the terminal to the idle state.
- The yellow <CORR> key corrects invalid data entry.
- Blue <ADMIN> key is used to access the terminal administration function menu.

## 1.3. Magnetic Stripe Card Reader:
I7770 features a bi-directional reader capable of reading tracks 1 and 2 simultaneously. The reader is located on the right-hand side of the Ingenico 7770. 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 toward the Ingenico 7770. 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:
The smart card reader complies with the ISO 7816, Sync and Async T=1 & T=0 and is EMV approved.
Insert the smart card horizontally into the slot on the front of the Ingenico 7770, the microchip facing up, and leave it in the reader throughout the transaction.

## 1.5. Printer:
The Ingenico 7770 integrates a quiet, high speed, "easy-load" style thermal printer with graphics capability.

## 1.6. Battery:
Rechargeable and easily replaceable intelligent Ni-MH battery pack (optional Lithium-Ion battery available).

## 1.7. SAM Connectors:
Three SAM card connectors are located on the bottom of the Ingenico 7770. The SAM (Secure Access Module) supports smart card chips necessary for applications such as loyalty.

## 1.8. Full ISO Format Card Connector:
The full format card is used to identify a merchant. The card is required for certain applications.

## 1.9. The Base
The Ingenico 7770 communicates with its base via radio link, or through the contacts (connect mode) which is useful when loading large amount of data, or when a radio link is unavailable.
The base provides recharging system for the intelligent battery pack, and includes the communication ports:
**- COM2 and COM3:**
Two RS-232 serial communication links for the customer applications download and for the communication with the external peripherals (speed 300 to 115200 bps).
**- DIAL LINE and TELEPHONE Ports:**
The V34 / 33600 bps (asynch. and synchr.) modem that supports fast connect and busy line detection.
The ports allow sharing of the telephone line with other devices such as a fax machine or telephone.

# 2. Ingenico 7770 Packaging Content:

1. The Ingenico 7770 hand held terminal.
2. The Ingenico 7770 battery pack.
3. Thermal printer paper, one roll.
4. The Ingenico 7770 base (optional, radio or charging).
5. The power supply (optional, with the base only).
6. The phone cable (optional, with the radio base only).

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

# 3. Installation procedure:

Place the Ingenico 7770 base on a clear, flat surface near the electrical and telephone sockets. The ideal location is in the center of the zone to be covered with a large open area around. The antenna is inside, on the left side of the base.

The Ingenico 7770 hand held and the base must be protected against high temperature, vibrations, dust, damp 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).
Do not place the base or the terminal closer than 3 m from any microwave oven in use.
Do not dock the hand held terminal on a metal surface.
Do not put the hand under the printer during communication, the range is strongly reduced.
If there are several radio bases installed, position them at least 2 meters from each other.

| | |
|---|---|
| **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 Ingenico 7770 is supplied with a removable rechargeable NiMH (or optional lithium-ion) battery. Only use the battery pack supplied with your terminal.
Ingenico 7770 battery is built with a circuitry for a battery charging management. To charge the battery, place it (alone, or with the terminal) on the Ingenico 7770 base. Ensure the base is powered up. Note that the battery will recharge only if necessary. Furthermore, the battery has internal temperature control so it never exceeds 50°C.

Use the power adapter supplied with the Ingenico 7770. Many adapters can appear similar and will plug into the Ingenico 7770 base but will not work properly causing erratic behavior, poor charging or even damage to the unit.

The Ingenico 7770 with a fully charged battery can execute up to 200 transactions (depending on the ticket size and transaction duration).

The Ingenico 7770 displays the battery status:

| | |
|---|---|
| ▯ | 1 bar represents 25 % of full capacity, |
| ▯▯ | 2 bars represent 50 % of full capacity, |
| ▯▯▯ | 3 bars represent 75 % of full capacity, |
| ▯▯▯▯ | 4 bars represent 100 % of full capacity. |

Charge the battery for 3 hours when it is used the first time. Full charging time after the first time is 2 hours. A new battery will benefit from an initial "conditioning": for the

first 3 charge cycles, allow the battery to fully discharge and then charge it to its full capacity.
Do not place the Ingenico 7770 terminal back on its base after each transaction. Frequent and short battery charging may damage the battery and reduce its lifetime.
Every one to two months allow the Ingenico 7770 to show the low battery warning and shuts down. Then charge the battery to its full capacity. This will prolong the battery life. Batteries that sit idle for extended periods of time without charging, will gradually self-discharge.

## 3.2. Installing the Battery:
Leave the Ingenico 7770 handheld terminal off its base and wait to turn itself off before handling the battery pack.
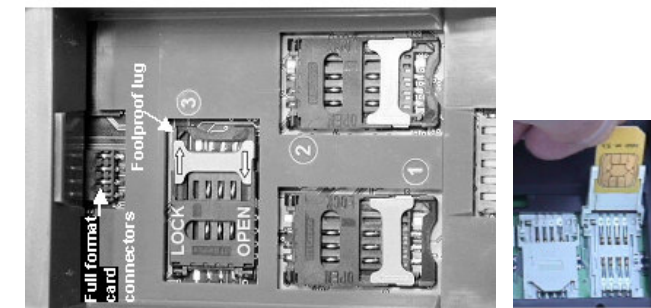Hold the battery with the connectors facing downwards, do not touch the contacts on the battery or Ingenico 7770.



Insert two plastic teeth in the gaps on the Ingenico 7770 case, place the battery in a cavity and press the handle until a click is heard.

## 3.3. SAM Installation:
Wait till the Ingenico 7770 turns off and remove its battery. 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 in a lock position (the LOCK arrow). Put the battery in the Ingenico 7770.



## 3.4. Merchant Card Installation:
Remove the battery and slide the card into the housing. Put the battery pack back in the place.

## 3.5. Connections:
Turn the Ingenico 7770 base off when connecting peripherals. The power supply must be connected last, only after all the other connections are made.