



• **DIAL LINE and PHONE CONNECTIONS**


The ports marked **EXT LINE** and  are identical. Use either one of these ports to connect the i7770 modem to the telephone line: plug the one end of a telephone cable into the port, and connect the other end of the cable to a wall telephone jack.

Use the remaining port to connect the phone, fax or other device that will share the same phone line with the i7770. Plug one end of a telephone cable into the i7770 port (**EXT LINE** or ) , and plug the other end of the cable in the device.

• **PERIPHERAL/HOST CONNECTION**

Unplug the i7770 radio base. Connect the serial cable to the base port marked **COM2** or **COM1/3**. 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 i7770 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.



3.5. Changing the printer paper:

When the coloured stripe on the paper appears, replace the paper: Remove the i7770 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 ensuring the paper is 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 i7770 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 Bluetooth 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 serial number. 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 is communicating 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 i7770 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 battery recharging or communication problems, 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 i7770 uses a low power (20dBm, ≤100mW) Bluetooth technology with frequency hopping in the 2.45Ghz ISM band. The i7770 range is around 100 m (open field).

6.1. Power supply:

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

- INPUTAC 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 2.28 ± 0.040 in (58 mm ± 1.0 mm)
- Roll Diameter 1.97 in (50 mm) maximum
- Roll Core ID 0.500 in (13 mm) nominal
- Roll Core OD..... 0.625 in (16 mm) nominal

Recommended brands:

KANZAN KF50 JUJO AF50KS-E
 KOEHLER..... KT55HS01 MITSUBISHI..... P6402
 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%, 25°C or 77°F) for long periods of time.

7. If you experience problems:

Call one of the customer service centers listed below:

In Canada:	In the USA:
TotalCARE	Ingenico Inc.
6520 Gottardo Court	TotalCARE
Mississauga, Ontario	1003 Mansell Road
L5T 2A2	Atlanta, GA 30076
1-888-900-8221 (905-795-8221)	1-800-435-3014 (770-594-6000)

US Federal Communications Commission (FCC) Warnings:
 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 when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the installation guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning: Changes or modifications not expressly approved by Ingenico could void the user's authority to operate the equipment.

Canadian Department of Communications (DOC) Warnings:
 This digital apparatus does not exceed the Class B limits for radio noise emissions from the digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

RF Exposure Warning:
 To comply with RF exposure requirements the base unit must be installed and operated with a separation distance of 20 cm or more between the device and all person's body (excluding extremities of hands, wrist and feet). The terminal unit has been tested and meets RF exposure guidelines for hand held operation pursuant to FCC OET Bulletin 65 Supplement C ed. 01-01, IEEE 1528/D1.2 (2003) and Industry Canada RSS-102 (1999). The base and terminal units must not be co-located or operated in conjunction with any other antenna or transmitter.
 For body worn operation, this device has been tested and meets FCC RF exposure guidelines when used with accessories that contain no metal and that position the device a minimum of 10 mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

ACTA Revision Part 68
 This equipment complies with Part 68 of the FCC rules and the requirements adopted by the Administrative Council for Terminal Attachments (ACTA). On the bottom of this equipment is a label that contains, among other information, a product identifier in the format US: INBMM01B17770. If requested, this number must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA.
 The Ringer Equivalence Number (REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.
 If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this INGENICO 7770 or i7770 does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

Industry Canada Warnings:
 NOTICE: This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment.

NOTICE: The Ringer Equivalence Number (REN) for this terminal equipment is <0.1>. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

NOTICE: To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.



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Ingenico 7770

Installation Guide



DIV750003F 430675

1. Ingenico 7770 description:

The i7770 is a portable (Bluetooth technology) point of sale electronic payment terminal designed to process debit, credit and smart card purchases.

The i7770 features an easy loading high-speed printer, a graphic display, back lit keyboard and easily accessible battery (for fast installation and replacement) with intelligent management of battery charging. The i7770 is environmentally friendly with light packaging, recyclable plastic and non-polluting batteries.

The i7770 communicates with the acquirer through its base via the telephone network. The hand held terminal and the base communicate through the Bluetooth 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.



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 i7770 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 i7770.
- The red <CAN> key cancels the current function and returns the terminal to the idle state.
- 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:

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 i7770. 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 i7770. 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 i7770, the microchip facing up, and leave it in the reader throughout the transaction.

The i7770 has EMV level 1&2 approvals and complies with the ISO 7816, Sync and Async T=1 & T=0.

1.5. Printer:

The i7770 integrates a quiet, high speed, "easy-load" style thermal printer with graphics capability.

1.6. Battery:

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

1.7. SAM Connectors:

Three SAM card connectors are located on the bottom of the i7770. The SAM (Secure Access Module) supports smart card chips necessary for applications such as loyalty.

1.8. The Base

The i7770 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 base provides recharging for the battery pack, and includes the communication ports:

- COM2 and COM1/3:

Two RS-232 serial communication links for customer applications download and for the communication with external peripherals (speed 300 to 115200 bps). The COM1/3 provides power for external devices.

- DIAL LINE and TELEPHONE Ports:

A V34 / 33600 bps (asynch. and synchr.) modem that supports fast connect and busy line detection.

The telephone port allows sharing of the telephone line with other devices such as a fax machine or telephone.

2. Ingenico 7770 Packaging Content:

1. The i7770 hand held terminal.
2. The i7770 battery pack.
3. Thermal printer paper, one roll.
4. The i7770 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 i7770 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. The antenna is inside, on the left side of the base.

The i7770 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 the 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.

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 i7770 is supplied with a removable rechargeable Ni-MH or Li-Ion battery. Only use the battery pack supplied with your terminal.





The i7770 battery is built with circuitry for intelligent battery management. To charge the battery, place the hand-held on the i7770 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 (122°F).

Ensure that the terminal is seated securely on the base.

Use the power adapter supplied with the i7770. Many adapters can appear similar and will plug into the i7770 base but will not work properly causing erratic behavior, poor charging or even damage to the unit.

The i7770 with a fully charged battery can execute up to 200 transactions (depending on the ticket size and transaction duration).

The i7770 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". The first 3 times the battery is used, allow the battery to fully discharge and then charge it to its full capacity.

Always charge the battery at the room temperature.

Do not place the i7770 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 i7770 to show the low battery warning and shut 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 i7770 handheld terminal off its base and wait until it turns itself off before handling the battery pack.

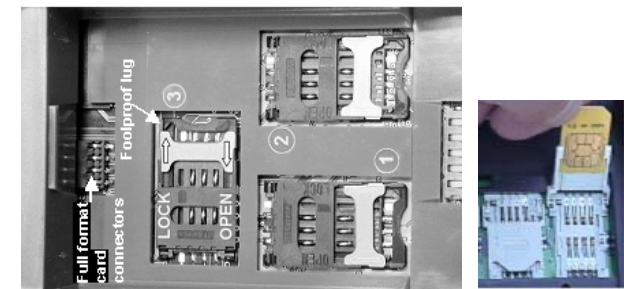
Hold the battery with the connectors facing downwards, do not touch the contacts on the battery or the i7770.



Insert the two plastic teeth in the gaps on the i7770 case, place the battery in the cavity and press the handle until a click is heard.

3.3. SAM Installation:

Wait till the i7770 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 into locked position (the LOCK arrow). Put the battery on the i7770.



3.4. Connections:

Turn the i7770 radio base off when connecting peripherals. The power supply must be connected last, only after all the other connections are made.

