User's Manual

Version May 99

ELITE 770 *

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DIV0510A

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I- Presentation of the terminal

1- Introduction

The ELITE 770 is a portable payment terminal. This terminal was created to process all payments made by magnetic or smart cards.

The ELITE 770 terminal benefits from a modular conception which permits it to treat all cards of different types using separate corresponding programs. It is therefore important to understand the manner in which it functions, at the modular and the terminal level.

The Modular Level

These functions link up with and correspond to the many different types of cards that the terminal processes, the most important of which is the principal function of payment.

The Terminal Level

There are a certain number of functions that are the concern of a 'global treatment' and not of a particular module. The terminal level is the superior level and is common to all modules. This level does not depend on the number or the nature of each module.

In its base version the ELITE 770 terminal is equipped with a module that permits it to process Bank Cards. Your retailer or installer will be able to give you all the necessary information on all modules on offer and their installation details.

2- The Terminal

The terminal case contains the following elements :
The portable terminal itself,

- A base.
- The cable that connects the terminal to a telephone line.
- The block sector that connects the terminal to a 115 or 230 volts power point (depending on the country)

3- The connections

Telephonic Connection

The compact telephonic cable connection that is supplied with the Elite terminal, must be introduced into the terminal plug, marked with the symbol . The telephone connection (RJ11) must be introduced into the telephone socket in the wall.

Telephonic line

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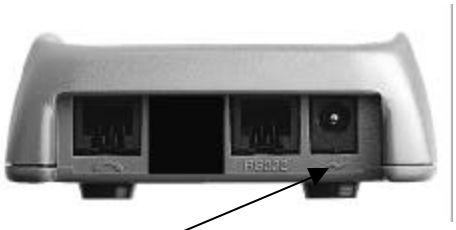
Electrical Connection

The small jack connection to the block sector is plugged into the connection marked with the symbol on the terminal. The twin pronged electrical plug of the block is connected to an electrical point of 115 or 220 volts (depending the country).



Power Supply

Connection with an External Peripheral

Certain peripheral devices such as a check reader can also be connected.

The ELITE 770 terminal must be powered off before connecting the cable on the base, to the RS232 port..

Serial port

4- The Keyboard - Principles of Utilisation

- The  key permits the operator to access the corresponding modular level functions

- The  and  keys permit to access to the terminal level functions and to the system menu

- The key - permits a paper feed of a couple of centimetres

- The **GREEN** key permits the validation of any information read by or entered into the terminal

- The **RED** key cancels the occurring command after which, it returns the terminal to the idle state

- The **YELLOW** key deletes the last character entered, and is used in certain cases where an override is requested

- The key marked **00** can only be used for entering amounts ; more particularly it permits the operator to enter amounts in cents

5- The Card Reader

Magnetic Stripe Card

The card can be read either swiped from right to left, or from left to right. The magnetic track on the card turned on the rear side of the terminal and the card should be swiped through the track reader freely and without hesitation.

Micro Chip Card

Introduce the card horizontally into the apparatus, the micro-chip facing up, as indicated and leave the card in position for the length of time that it takes to process the transaction.

6- Portable Functioning

The ELITE 770 terminal is portable ; it includes batteries which permit to make 150 transactions without connection to the base.

A star on the upper right side of the display indicates a correct connection between the terminal and its base.

A battery low is indicated by a message « **-BAT-** » on the display following by a beep. The terminal continues to run during about 40 transactions, but batteries need to be reloaded during at least 14 hours.

In a portable mode, the ELITE 770 terminal enters in a wait state automatically after 20 seconds of inactivity or after hitting the RED key.

The message « **-RANGE-** » appears on the terminal display when the terminal is out of range of the base, during a communication establishment. To work properly, put the terminal nearer the base (about 100 meters in open air, 40 meters inside a building depending on the environment).

The message « **-BUSY-** » appears during a connection with the base when an other terminal is already in communication with this base. The operator must wait the end of the communication between the base and the other terminal.

The message « **-FULL-** » appears when the terminal wants to connect a base which already has the right number of terminal. In this case, switch off the base during a few seconds, and launch a profile on each terminal (System menu-

configuration) of the network. If the problem persists, switch off the base and call your maintenance company.

Before the first use of the terminal, batteries must be loaded during at least 14 hours.

II- ELITE 770 TECHNICAL OVERVIEW

1- Terminal feature

The ELITE 770 version has the following features :

- Up to 1Mbyte Battery backed-up RAM with advanced memory protection
- 512 bytes EEPROM
- INTEL compatible 8051 CPU
- Battery backed-up calendar
- Buzzer
- 18 keys keyboard
- Track 2 Card Reader (Optional Track 2 & 3 or 2 & 1)
- ISO 7816 Smart Card Reader
- 1 RS232 port for an ECR connection or external device connection
- Built-in Modem CCITT V22, V22 bis
- Automatic tone dialling facility
- Short range radio communication with base
- Up to four SIM smart card connectors (Option)
- Short range radio base with RS232 serial communication port
- LAN facilities on a same base (up to 10 terminals)

2- Display

The Display is a 2 lines 16 characters back-light LCD or a large screen graphical display

3- Printer

The printer includes the following features :

- a paper chamber for housing the paper roll
- a cutter, above the printer mechanism, allowing the user to cut manually the receipts
- a push button which activates the Line Feed mechanism and self-test
- a speed of 4 lines per second

4- RS232 Interface

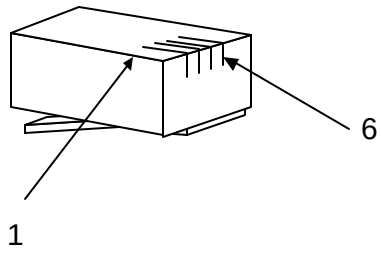
Logic level (RS 232C level) :

- logic level « 0 » : -8V
- logic level « 1 »: +8V
- minimum « 0 » level on input : -3V
- minimum « 1 » level on input : +3V
- maximum current : 10 mA

standard interface :

- rate : 300 to 19200 bauds
- format : 7 to 8 bits
- parity: odd, even, none
- interface: V28

5- RS232 Connection



1 ⇨ N.U
2 ⇨ TxCOM1
3 ⇨ RxCOM1
4 ⇨ CTS
5 ⇨ RTS
6 ⇨ Ground

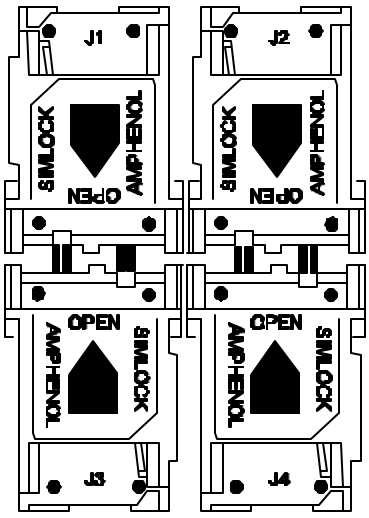
6- Modem

The Modem fulfils the data exchange function between the system and telephone network. It is a full-duplex asynchronous modem complying with CCITT V22 & V22 bis recommendations.
The MODEM is connected (through the base) to the telephone network by a removable cord fitted with a telephone connector which is plugged into the telephone wall socket.
It is equipped with :

- A computerised electronics with built-in application program and module self-test
- A line interface for connection to the telephone network
- An automatic tone dialling facility
- A connector for plugging in a removable phone cord, fitted with a 6-contacts connector or adapter plug (depending on the country)

7- SIM Interfaces

When implemented, access to the optional SIM connectors needs to open the battery door located at the bottom of the terminal.



SIM Installation

- Slide the card holder cover,
- Turn over the cover
- Insert a SIM card into the card holder,
- Shut the cover
- Slide the cover to lock

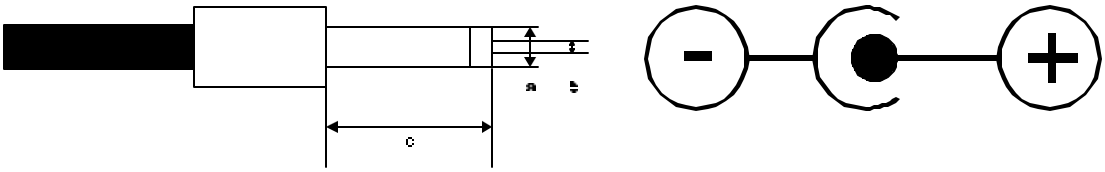
SIM Removal

- Slide the card ho lder cover,
- Turn over the cover
- Remove SIM card from the card holder,
- Shut the cover
- Slide the cover to lock

8- Technical Specifications

Power Supply.

- Power Input Voltage 115 / 230Vac
- Power Input Frequency 50/60Hz
- Power Output 10 Vac 500 mA 6 VA



a	b	c
∅ 5,5	∅ 2,5	9,5

Terminal

• Dimensions H x D x W	210 x 92 x 68 mm
• Operating Temperature	+5^{O}C to +40^{O}C
• Humidity	20% to 90% No Condensation

Radio communication

• Type	Half-duplex
• Bandwidth	ISM 433,9 MHz
• Emitting power	≤10 mW (Don't need license)
• Channels	15 (100 kHz between channels)
• Range	≈ 100 meters (open air)
	≈ 40 meters (typical)

III- PROCEDURES OF INSTALLATION

After having made the connections previously described, the operator can switch the terminal on. Before doing this, the operator is obliged to enter all general data at the terminal level.

1- Configuring Radio Link

IMPORTANT NOTE : The following configuration is not necessary for a single configuration (one base, one terminal), as it has been carried out during production.

It is necessary only if you attempt to add a terminal on a previously purchased base.
This procedure, if failed, can provoke malfunction of other terminals connected to your base. In case you are not sure to carry it out properly, or if it does not work properly, call your retailer, who has powerful tools to configure both terminals and base.
The LAN can not support more than 5 terminals without reconfiguring base. In case you need 6 to 10 terminals on the same base, call your retailer, who is able to configure properly the base.

- The link between the base and the terminals is coded from the related serial numbers. This means that both terminals and base must know the serial number of other components in the LAN.
- The base is able to find terminals identifiers at the first radio connection after power-on. You don't need to configure it.
- The terminal must be configured in order to know the number of the base where it will have to connect. In the menu «**INPUT BASE #**» under «**SYSTEM MENU**», validate. The terminal then displays «**LAN CONFIG**.». Enter the code 2049, then validate. The terminal displays then the maximum number of terminals. If your base is a 'standard' one, enter 5, then validate, else validate without modification. The base's serial number is then displayed. This number correspond to the number printed on the back of the base. Enter it, followed by the VAL key.
- Your terminal is now configured. You can test it by printing a configuration receipt (system menu, configuration), that must indicate the number of terminals and the base serial number.
- In case the message 'Absent base ! ' is printed, the base serial number is not correct.
- In case the message «**FULL**» is displayed, the number of terminals is not correct, or your base don't support an other terminal.

2- Entering the Date and the Time

In its dormant state the terminal indicates its version of the date and time. The date and time modification procedure will not be carried out if the date and time are incorrect.

N°	DISPLAY/PRINTING	ACTION
1	CARD >>> 21/07/99 18 :32	Press the ■ key
2	SYSTEM MENU CHANGE DATE TIME	Press the GREEN key
3	DATE : 21/07/99	Enter the current date (character « / » is automatically inserted). Press the GREEN key
4	TIME : 18 :32	Enter the current time (character « : » is automatically inserted). Press the GREEN key
5	CARD >>> 21/07/99 18 :32	

3- Telephone Network Parameters

With regard to the following points ; if the value already present in the apparatus is correct, the value will be validated without having to enter a new one.

N°	DISPLAY/PRINTING	ACTION
1	CARD >>> 21/07/99 18 :32	Press the ■ key and select the function by ▲ or ▼ keys
2	SYSTEM MENU CHANGE PAD PAR.	Press the GREEN key
3	SYSTEM MENU SWBOARD = (up to 4 char)	The current value is displayed. If necessary, enter the value of the switchboard to connect the terminal to the switch network. Cancel the value with the RED key in the case of a direct line. Press the GREEN key
4	DWNL = 08 36 06 24 24 (up to 12 char)	Press the GREEN key
5	CARD >>> 21/07/99 18 :32	

4- Configuration Receipt

This receipt put together the hardware and the software status of the terminal.

N°	DISPLAY/PRINTING	ACTION
1	CARD >>> 21/07/99 18 :32	Press the ■ key and select the function by ▲ or ▼ keys
2	SYSTEM MENU CONFIGURATION	Press the GREEN key
3	***The terminal prints a receipt***	
4	CARD >>> 21/07/99 18 :32	

5- Option « Table Number »

This function is used in a restaurant environment.

N°	DISPLAY/PRINTING	ACTION
1	CARD >>> 21/07/99 18 :32	Press the ■ key and select the function by ▲ or ▼ keys
2	SYSTEM MENU OPTIONS	Press the GREEN key
3	ENTER TABLE N. : 0	The current value is displayed. « 1 » means the table number will be requested for each payment
4	CARD >>> 21/07/99 18 :32	

6- Application Software Downloading Procedure

This function allows the remote downloading of a new software application version. The terminal call the host which contains the new required version of the application.

N°	DISPLAY/PRINTING	ACTION
1	CARD >>> 21/07/99 18 :32	Press the ■ key and select the function by ▲ or ▼ keys
2	SYSTEM MENU DOWNLOAD	Press the GREEN key
3	DOWNLOAD Confirm ENTER	Press the GREEN key
4	DOWNLOAD Download ?	Press the GREEN key
5	DOWNLOAD PABX= ?	If necessary , enter the value of the switchboard to connect the terminal to the switch network
6	DOWNLOAD Code =	If necessary, enter the header of the host phone number and press the GREEN key
7	DOWNLOAD Tel #	Enter the host telephone number and press the GREEN key
8	DOWNLOAD DIALING	The terminal attempts to establish a connection to the host. After the connection, four possibilities are offered : ADD, UPDATE, DELETE and END (for more explanation refer to the download manual)

IV- SECURITY RECOMMANDATIONS

This terminal has no power switch. The power supply is the only device used to switch off the terminal. Of this fact the main power must be easily accessible.

➠ ***Guideline of security concerning the Lithium batteries:***

- Hold out of reach of the children,
- In case of ingestion of battery elements, the person involved should seek medical assistance promptly,
- It is important to respect the polarities `+ ' and`-`,
- Do not attempt to reactivate the batteries by a heat source, by an electric refill or all other means,
- Do not dispose of batteries in fire,
- Do not disassemble the batteries

➠ ***Guideline of security concerning the batteries nickel Cadmium:***

- Hold out of reach of the children
- Do not heat or throw to the fire,
- Do not short-circuit the batteries,
- Do not close up the valves of security (situated under the positive poles),
- Do not use in a hermetic box,
- Use the adapted charger, only in the range of specified temperature,
- Do not manipulate and put back in service if the battery is damaged and/ or if it presents some liquid flights.

➠ ***Of a general manner:***

- A danger of explosion is possible if there is incorrect replacement of the battery.
- Replace the battery with the same equivalent type advise by the constructor.
- Put the used batteries to the rubbish accordingly to the instructions of manufacturer.

The equipment has been approved in accordance with Council decision 98/482/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In the event of problem, you should contact your equipment supplier in the first instance