# Formula 8500/8500RF

## *Laser Hand-Held PC*

## Features

- Formula One wireless technology at 2.4 GHz
- IBM 5250, 3270, and VT-100 terminal emulation
- "Touch-screen" option
- Powerful: based on a 32-bit, 486 processor
- Open system architecture: DOS, slot for PCMCIA card and IrDA port
- Extremely compact and sturdy
- Lightweight

## Applications

- Goods shipping/receiving
- Inventories
- Materials pick-up
- Warehouse management
- Shelf price-checking
- Goods re-assortment in the point of sale

## General Description

With its captivating and functional design, the **Formula 8500** has been conceived and realized to successfully deal with extensive use in the more difficult sectors such as logistics, distribution and services, where comfort, practicality, resistance to bumps and possibly unfavorable environmental conditions are all essential requirements that the **Formula 8500** meets in full.

It is on this solid ground that Datalogic based its performance product, which can be expanded and easily integrated into the most widely-used information systems.

Based on a 32 bit 486 processor, the **Formula 8500** offers high processing capacity, ample memory and, thanks to its DOS Operating System, unparalleled programming simplicity.

Developers who are already familiar with the PC environment can easily adapt the terminal's operations to their requirements by using the Development System 8500, which is based on a standard C compiler available with special libraries.

The integrated laser scanner guarantees speed and precision in reading the most widely-used symbologies. The user can dialogue with the **Formula 8500** in an extremely productive way thanks to the alphanumeric keyboard and the large LCD display, which provide a rational and effective terminal-operator interface. Serial mode communication occurs when placing the terminal in the Formula 985 Transceiver/Charger, which has serial ports, while the PCMCIA slot contributes to making the **Formula 8500** a multi-talented and highly productive work instrument.

The **Formula 8500/RF** wireless version, which bases its operation on the fast and reliable Formula One radio frequency communication system working at 2.4 GHz, offers maximum freedom of movement and the possibility of transmitting and receiving information in real time. Suitably integrated by the TN Client software, it allows IBM 5250, 3270 and VT-100 terminal emulation.

## User Interface


The 41-key alphanumeric keyboard allows data and descriptions to be rapidly keyed in manually, thus providing access to various valuable functions - both operative ones and those which control and manage the Formula 8500.

If intended for operation in terminal emulation, the Formula 8500/RF is supplied with the practical graphic integration on which the additional functions associated to the respective keys are displayed.

The large, back-lit LCD display (160 x 240 pixel resolution) clearly displays all operations, even in poor lighting conditions.

Furthermore, It is possible to enable the "Touch-screen" function, which is useful in applications that require signatures to be captured. Special developers' libraries, the software driver and the stylus are in fact available as optional accessories.

## Cradles and Communication

The Formula 8500 Laser Hand-held PC is equipped with an IrDA port to support an infrared dialogue with the Formula 985 Transceiver/Charger, which, through the incorporated RS232 and RS485 ports, allows for classic serial communication towards the PC or local network. The IrDA port also permits the Formula 8500 to communicate across short distances in wireless mode with portable printers or other equipment with a dedicated driver (optional).

Formula 985, which houses the terminal during data transfer and battery recharging, is equipped with additional housing, which can be used for recharging a second battery pack.

The cradle for the Formula 8500 is also available in a vehicle mount option, such as the F985/V.

The practical, type-II on-board PCMCIA slot in the Formula 8500 allows for the installation of modems, Ethernet or Token Ring adapters and memory expansion cards, thanks to the standard PC Card technology.

Thus, the Laser Hand-Held PC Formula 8500 can communicate in different modes. Transmission speeds can reach 115 Kbps through a modem with PCMCIA certified adapters or through LAN with PCMCIA certified Ethernet or Token Ring adapters.

*Formula 8500 and Formula 985 Transceiver/Charger*

*Mobile cradle F985/V*

## Spread Spectrum Wireless Communication

The Formula One wireless communication system in 2.4 GHz radio frequency has been developed by Datalogic specifically for high-performance Formula terminals.

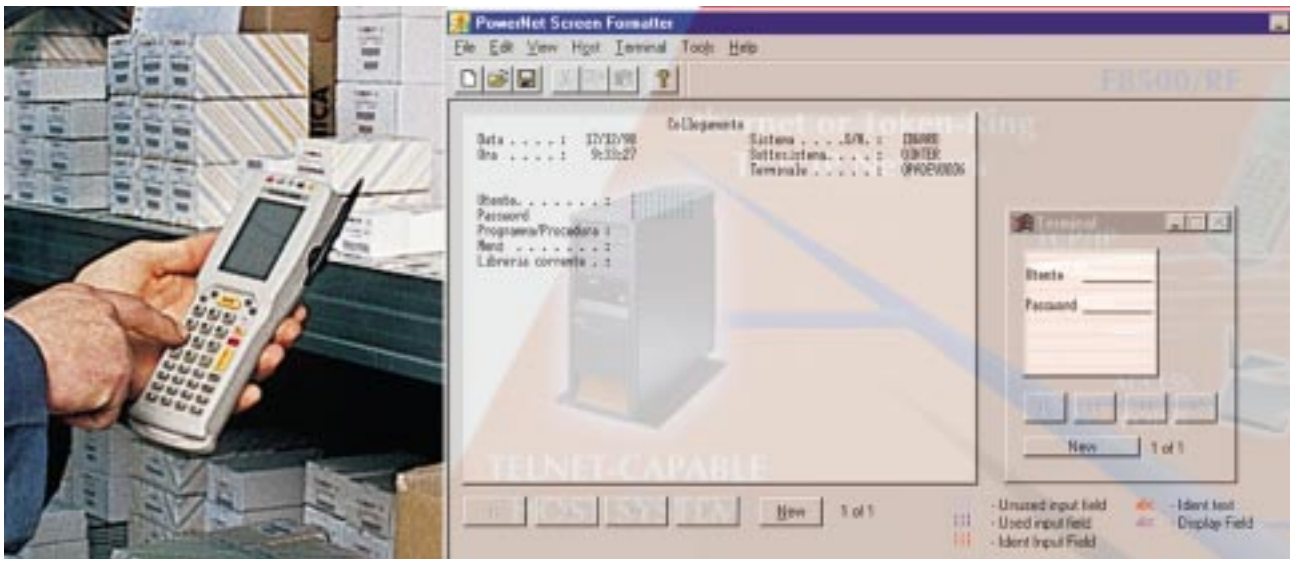
Formula One, which is compatible with the OpenAir 2.4 international standard, offers high speed data transmission as well as excellent immunity against interference, thanks to Spread Spectrum Frequency Hopping (SSFH) technology. The system is based on the ACCESS POINT that provides the bridging between the wired and the wireless devices.

The Access Point can be configured and managed through the wired or wireless network, by serial connection or modem, with the use of Telnet Access software, web browser or SNMP (Simple Network Management Protocol).

As a further extension of the Access Point offer, the AP-7510 and AP-7920 can be used to address those applications where no SNMP (AP-7510) or roaming (AP-7920) is required, providing great advantages in terms of the price/performance ratio.

Performance of the Formula One system can be increased with the assistance of TN Client, a complete software package for terminal emulation based on a standard Telnet-TCP/IP protocol.

TN Client brings together the VT-100, VT-220, HP700/92, IBM 5250 and 3270 emulation, allowing for real time interaction between the Mobile unit and Unix, HP, IBM AS/400 and IBM Mainframe systems.




*The Formula 8500/RF, which is integrated into the Formula One hardware system, enhanced by TN Client, operates efficiently in terminal-emulation mode.*

## Formula 975 Multicharger

*Formula 975/4 and Formula 975/8*

The Formula 975 Multicharger is the ideal answer for battery recharging requirements in applications where intense use of the terminal and therefore extremely reduced rest time is necessary.

The Formula 975 permits 4 or 8 battery packs to be placed in the cradle and recharge simultaneously, allowing more operators to continue working by simply changing the run down device.

In this manner, all the pauses necessary for recharging when the terminal is placed in the classic Transceiver/Charger are avoided.

The Multicharger also optimises battery lifetime thanks to its recycling option, which eliminates the possibility of "memory effect."

The F975 is suitable for F7400 and F8500 portable terminals.

# Models and Accessories

| PRODUCT | DESCRIPTION | ORDER NO. |
|---|---|---|
| F8500 2+2 | F8500 Laser Hand-Held PC 2MB+2MB | 942204000 |
| F8500 2+4 | F8500 Laser Hand-Held PC 2MB+4MB | 942204005 |
| F8500 4+8 | F8500 Laser Hand-Held PC 4MB+8MB | 942204010 |
| F8500/RF 2+2 | F8500 Laser Hand-Held PC 2MB+2MB RF | 942204XXX |
| F8500/RF-1 TN | F8500 Laser HPC 2MB+2MB RF with TN Client for terminal emulation | 942204XXX |
| **ACCESSORIES** | | |
| F985 | IrDA Transceiver/Charger | 94A15430X |
| F985/V | Vehicle IrDA Transceiver/Charger (without power supply) | 94A154030 |
| TN CLIENT | Terminal emulation software package | 94A104570 |
| FRBP 8500 | Rechargeable NiMH battery pack for F8500 | 94ACC4240 |
| FABP8500 | Battery pack for alkaline batteries (without batteries) | 94ACC4250 |
| FCB 232 D 9 F | RS232 serial connection cable for PC/AT T 8 M - D 9 F 2m | 94A054000 |
| FCB232 D 25 F | RS232 serial connection cable for PC/XT T 8 M - D 25 F 2m | 94A054010 |
| FCB485 SYS | RS485 serial connection cable for SYSNET 2m | 94A054020 |
| FPO485 | Pen, software development libraries and software driver for Touch-screen option | 94A104680 |
| DEVELOP. SYS. 8500+C Compiler | Libraries for software development and C compiler | 94A054020 |

**X = 1 - power supply for USA; 2 - power supply for Europe; 4 - power supply for UK; 5 - power supply for Australia*

# Specifications

| | |
|---|---|
| OPERATIVE SYSTEM | ROM DOS 6.22; Phoenix technologies BIOS |
| PROCESSOR | True 32 bit 486, 16 MHz |
| SYSTEM MEMORY | 512KB ROM dedicated to DOS and BIOS; 2MB RAM, 2MB Flash; 2MB RAM, 4MB Flash, 4MB RAM, 8MB Flash |
| RAM | For system operation and virtual-disk data storage |
| FLASH | Non-volatile memory for virtual-disk storage of applications and data files, |
| DISPLAY | High-contrast graphic LCD with 160 x 240 pixels resolution, 16 levels of gray, EL backlight feature, keyboard controlled contrast, touch screen option, integrated digitizer and ergonomic stilo option |
| SCREEN FORMAT | 20 char. x 25 lines or 10 char. x 12 lines in CGA mode; 16 char. x 20 lines in proprietary Datalogic mode |
| KEYBOARD | Alphanumeric with 41 silicon rubber keys |
| SIGNAL TO OPERATOR | Bicolor LED; Piezoelectric buzzer software programmable frequency and duration |
| CLOCK/CALENDAR | Quartz controlled RTC; programmable date and time |
| LIGHT SOURCE | Visible laser diode |
| SCANNING RATE | 36 scans/sec |
| MINIMUM RESOLUTION | 0.15 mm |
| DEPTH OF FIELD | 3 to 70 cm, depending on bar code thickness |
| READING ANGLES | ±65° skew; ±55° pitch |
| BAR CODES | EAN 8, EAN 13, UPC/A-E, MSI, Code 3/9 Standard-Extended, Code 2/5 Interleaved-Matrix-Industrial, Codabar, Code 128, UCC/EAN128 |
| SERIAL COMMUNICATION | Integrated IrDA port; RS232 or RS485 via F985 Transceiver/Charger |
| Transmission Speed | Up to 115 Kbps |
| POWER SOURCE | 1500mAh removable and rechargeable NiMH battery pack; Removable battery pack for AA-size alkaline batteries; RTC and configuration data back-up with lithium battery |
| AUTONOMY | 16 h, with reading every 45" (NiMH batteries) 20 h, with reading every 45" (with 3 alkaline batteries) |
| BATTERY CHARGING | Via F985 IrDA Transceiver/Charger or separated battery pack recharge via additional recharging slot |
| DIMENSIONS | 212 x 74 x 50/34.5 mm |
| WEIGHT | 300 g (F8500); 440 g (F8500/RF) with NiMH battery pack |
| OPERATING TEMP. | 0 to 50 °C |
| DROP RESISTANCE | Resists drops from 1.2 m onto a concrete surface |
| ENVIRONMENTAL PROTECTION | IP51 |



DATALOGIC
Bar Code & More



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