Paper+PC™

TECHNOLOGY

DIGITAL PENS

Clairefontaine

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http://www.clairefontaine-paperpc.com

In some countries there may be restrictions on using Bluetooth devices. Check with your local authorities.

5. DIGITAL PENS

5.1 General

The pen starts up in a second, simply by removing the lid. Likewise, replacing the lid switches off the pen.

Write/draw completely naturally. When the tip of the pen comes into contact with the paper, the infrared camera starts filming the movement of the pen in relation to the grid located on the page.

As for the PaperPCs, simply touching the boxes in the remote tools palette is enough for the actions to be taken into account (placing the pen tip against the box, without even needing to move it, is enough for the pen to read the dot matrix located around the pen tip).

If the pen is low on power, it saves the data acquired since the last transaction until it switches off. Recharge it, then transfer.

The pen also has a vibrate function. Generally speaking, short vibrations, especially if repeated, indicate that everything is going well. Longer vibrations indicate a problem.

5.2 Installation

Please refer to the documentation provided by the manufacturer of your digital pen.

5.3 Configuration

5.3.1 Connection to a personal computer via USB

This connection mode uses the USB connector base provided with your digital pen and your Internet connection. It is used when a transfer request is made by pointing to the “SEND TO PC” box.

Ensure that your firewall and anti-virus hardware or software are correctly configured: the “DockingEngine.exe” application must have Internet access rights (incoming and outgoing) on port 80.

If using the pen on a computer at work, contact your network administrator.

5.3.2 Connection to a mobile phone via Bluetooth

This connection mode uses the Bluetooth connectivity of your digital pen and your mobile phone, plus an Internet connection set up by the pen via your mobile phone. It is used when a transfer request is made by pointing to the “SEND TO PHONE” box.

5.3.2.1 Bluetooth pairing

This stage is required in order to be able to send data from the pen via your mobile phone. It involves creating a specific link between your equipment.

For this stage, we advise you to isolate yourself in order to limit unwanted connections. In

particular, move yourself away from any other digital pen or mobile phone.

- Power on your mobile phone: ensure that Bluetooth communication is enabled and that the “My phone’s visibility” parameter is set to “Shown to all”.
- Using your digital pen, point to the “Pairing” box of your PaperPC (on the inside back cover, see § 11.8.2). Your phone should be within a range of 10 meters or less.
- Your phone sets up communication with your pen and requests a four-digit code. For the Nokia pen, this code is the last four digits of the pen’s serial number (located on the black front label on the body of the pen).
- Enter this code and validate; the pen vibrates three times to confirm the pairing,
- In “Paired devices” set the installed pen to “Set as authorized” in order to avoid your phone requesting authorization to communicate with your pen on each transaction.

5.3.2.2 Internet connection

Depending on the model of your mobile phone and your subscription, the Internet connection may be in one of two modes: GPRS or GSM.

5.3.2.2.1 GPRS connection

This is the recommended connection mode, however it requires a mobile phone which supports this connection mode and a specific subscription with your mobile operator.

To date, all national operators offer these services, either through options or packages.

You can enable these options/packages over the Internet via your operator’s portal or by contacting customer services by phone, this may take a few days to set up.

GPRS calls are billed according to the volume of data exchanged and not according to the connection time.

If your GPRS subscription is active at the time of the Bluetooth pairing (see § 5.3.2.1), your pen will automatically load the required settings.

In the event of an error when loading these settings, or if you wish to enter the settings manually, see §11.2.

5.3.2.2.2 GSM connection

There are several situations which require GSM Internet access to be used:

- Mobile phone or package which does not allow a GPRS connection to be set up,
- Inadequate GPRS access.

The use of GSM access does not require a specific subscription, however it does require a dial-up Internet connection (PSTN) set up through a modem (ADSL connection settings cannot be used in this case).

Most Internet Service Providers (ISPs) offer this service free of charge.

The use of a free Internet access is highly recommended since in any case you will have to pay for the GSM connection. If you have a mobile phone package, these calls will be included in the package.

For GSM access, data transfers are billed by your operator according to the connection time, and therefore deducted from the time available according to your mobile package.

To configure a GSM connection on your digital pen, see § 11.3.

If you have configured your pen for GPRS access and GSM access simultaneously, ensure that the mode you wish to use is correctly selected in the “Active dial setup”: “Primary dial” for GPRS access or “Secondary dial” for GSM access, see § 11.3.

5.4 Functionalities

5.4.1 Digitizing and storage

When powered on, the digital pen digitizes every movement made on the paper of your PaperPC and stores the information in its memory.

If the pen is low on power, it retains all information in its memory, but cannot continue digitizing.

5.4.2 Visual indicators and vibration

Depending on models, digital pens have several means to pass on information concerning its operation, for example visual indicators (LEDs) or vibrators.

To find out the exact meaning of each message from your digital pen, see the documentation provided by the manufacturer of your digital pen.

5.4.3 Partial reset

The partial reset is used to unblock your pen, in the event that a transaction or digitization is refused, without losing any of the information saved in the memory.

To carry out a partial reset, switch on the pen, then press the reset button for five seconds using a paper clip, or the fine point of any other item.

Do not place the tip of the pen in contact with any surface during this reset.

5.4.4 Full reset

The full reset deletes all information from the pen’s memory, both digitized notes and configuration and pairing information.

To carry out a full reset, switch on the pen, press the tip of the pen against a surface, then press the reset button for five seconds using a paper clip or the fine point of any other item.