

APPLICANT: MOTOROLA, INC.

FCC ID: IHDT6EG1

**INSTRUCTION MANUAL**

A preliminary draft copy of the Users Manual follows:

# *Operation Guide*

## D1000 PCMCIA CARD

68P02974C25-O



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DRAFT (01.08.04)

## ***Disclaimer***

Statements included in this manual indicating support provided by Motorola are subject to changes at any time. Motorola reserves the right to make changes to this manual.

## ***Regulatory Requirements***

The Federal Communications Commission (FCC) requires application for certification of digital devices in accordance with CFR Title 47, Part 2 and Part 15. This includes Electromagnetic Energy Exposure (EME) testing. As the D1000 PCMCIA modem is not a stand-alone transceiver but is a PC card, the D1000 cannot be tested by itself for EME certification and was tested while it is inserted in a Laptop Personal Computer.

## ***Regulatory Statement***

The following safety precautions must be observed during all phases of the operation, usage, service or repair of any D1000 modem.

Users of the D1000 modem are advised to convey the following safety information to users and operating personnel supplied with the product. Failure to comply with these precautions violate safety standards of design, manufacture and intended use of the product. Motorola assumes no liability for customer failure to comply with these precautions.

1. The D1000 must not be mechanically nor electrically changed.
2. The D1000 has been designed to meet the EMC requirements of ETS 300 342.
3. The D1000 meets the safety requirements of EN60950.
4. Systems using the D1000 will be subject to mandatory EMC testing under directive 89/336/EEC.

## ***THIS RADIO PRODUCT MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.***

Your wireless radio product is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health. The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.\* Tests for SAR are conducted

using standard operating positions reviewed by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the radio device is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before a radio product is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (e.g. at the ear and worn on the body) as required by FCC for each model. The highest SAR value for this radio product when tested for use during packet data is 1.52 W/kg. The FCC has granted an Equipment Authorization for this model phone with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID **IHDT6EG1**. The standard incorporates a substantial margin of safety to give with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model phone is on file web-site at <http://www.wow-com.com>. Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) \* In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. additional protection for the public and to account for any variations in measurements.

## ***Safety and General Information***

### **IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION. READ THIS INFORMATION BEFORE USING YOUR RADIO PRODUCT.**

The information provided in this document supersedes the general safety information in user's guides published prior to December 1, 2002.

### **Exposure To Radio Frequency (RF) Energy**

Your phone contains a transmitter and a receiver. When it is ON, it receives and transmits RF energy. When you communicate with your phone, the system handling your call controls the power level at which your phone transmits.

Your Motorola phone is designed to comply with local regulatory requirements in your country concerning exposure of human beings to RF energy.

### **Operational Precautions**

To assure optimal phone performance and make sure human exposure to RF energy is within the guidelines set

forth in the relevant standards, always adhere to the following procedures.

### ***External Antenna Care***

- Use only the supplied or Motorola-approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone.
- When using any approved accessory antenna, position it at least eight inches (20cm) from any part of any person.

DO NOT hold the external antenna when the phone is IN USE. Holding the external antenna affects call quality and may cause the phone to operate at a higher power level than needed. In addition, use of unauthorized antennas may result in non-compliance with the local regulatory requirements in your country.

### ***PC Card Operation***

**IMPORTANT:** After using the D1000 make sure to perform a proper shut down within the software, while allowing the metal portion of the PC card to cool down. When ejecting the PC card immediately after use, make sure to hold the D1000 by the plastic portion and avoid holding the PC card by its metal portion.

### ***Approved Accessories***

Use of accessories not approved by Motorola, including but not limited to batteries and antennas, may cause your phone to exceed RF energy exposure guidelines. For a list of approved Motorola accessories, visit our website at [www.Motorola.com](http://www.Motorola.com).

### **RF Energy Interference/Compatibility**

**NOTE:** Nearly every electronic device is susceptible to RF energy interference from external sources if inadequately shielded, designed, or otherwise configured for RF energy compatibility. In some circumstances your phone may cause interference.

### ***Facilities***

Turn off your phone in any facility where posted notices instruct you to do so. These facilities may include hospitals or health care facilities that may be using equipment that is sensitive to external RF energy.

### ***Aircraft***

When instructed to do so, turn off your phone when on board an aircraft. Any use of a phone must be in accordance with applicable regulations per airline crew instructions.

### **Medical Devices**

#### ***Pacemakers***

Pacemaker manufacturers recommend that a minimum separation of 6 inches (15 centimeters) be maintained between a handheld wireless phone and a pacemaker. Persons with pacemakers should:

- ALWAYS keep the phone more than 6 inches (15 centimeters) from your pacemaker when the phone is turned ON.
- NOT carry the phone in the breast pocket.
- Use the ear opposite the pacemaker to minimize the potential for interference.
- Turn OFF the phone immediately if you have any reason to suspect that interference is taking place.

### ***Hearing Aids***

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

### ***Other Medical Devices***

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

### **OPERATIONAL WARNINGS**

#### ***For Vehicles With an Air Bag***

Do not place a phone in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a phone is placed in the air bag deployment area and the air bag inflates, the phone may be propelled with great force and cause serious injury to occupants of the vehicle.

#### ***Potentially Explosive Atmospheres***

Turn off your phone prior to entering any area with a potentially explosive atmosphere. Do not remove, install, or charge batteries in such areas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

**Note:** The areas with potentially explosive atmospheres referred to above include fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust, or metal powders. Areas with potentially explosive atmospheres are often but not always posted.

#### ***Blasting Caps And Areas***

To avoid possible interference with blasting operations, turn OFF your phone when you are near electrical blasting caps, in a blasting area, or in areas posted "Turn off electronic devices." Obey all signs and instructions.

#### ***Batteries***

Batteries can cause property damage and/or bodily injury such as burns if a conductive material such as jewelry, keys, or beaded chains touch exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a

pocket, purse, or other container with metal objects. **Use only Motorola original batteries and chargers.**

Your battery or phone may contain symbols, defined as follows:

| Symbol                                                                            | Definition                                                                                                                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|  | Important safety information will follow.                                                                                                  |
|  | Your battery or phone should not be disposed of in a fire.                                                                                 |
|  | Your battery or phone may require recycling in accordance with local laws. Contact your local regulatory authorities for more information. |
|  | Your battery or phone should not be thrown in the trash.                                                                                   |
|  | Your phone contains an internal lithium-ion battery.                                                                                       |

## Warranty Information

Motorola guarantees to you, the original purchaser, the Personal Communicator and accessories which you have purchased from an authorised Motorola dealer (the "Products"), to be in conformance with the applicable Motorola specifications current at the time of manufacture for a term of [2] years from date of purchase of the Product(s) (Warranty Term).

You must inform Motorola of the lack of conformity to the applicable specifications of any of the Products within a period of two (2) months from the date on which you detect a defect in material, workmanship or lack of conformity and in any event within a term not to exceed the Warranty Term, and must immediately submit the Product for service to Motorola's Authorised Repair or Service Centre. Motorola shall not be bound by Product related statements not directly made by Motorola nor any warranty obligations applicable to the seller.

A list of the Motorola Call Centre numbers is enclosed with this Product.

During the Warranty term, Motorola will, at its discretion and without extra charge, as your exclusive remedy, repair or replace your Product which does not comply with this warranty; or failing this, to reimburse the price of the Product but reduced to take into account the use you have had of

the Product since it was delivered. This warranty will expire at the end of the Warranty Term.

This is the complete and exclusive warranty for a Motorola Personal Communicator and accessories and in lieu of all other warranties, terms and conditions, whether express or implied.

Where you purchase the product other than as a consumer, Motorola disclaims all other warranties, terms and conditions express or implied, such as fitness for purpose and satisfactory quality.

In no event shall Motorola be liable for damages nor loss of data in excess of the purchase price nor for any incidental special or consequential damages\* arising out of the use or inability to use the Product, to the full extent such may be disclaimed by law.

This Warranty does not affect any statutory rights that you may have if you are a consumer, such as a warranty of satisfactory quality and fit for the purpose for which products of the same type are normally used under normal use and service, nor any rights against the seller of the Products arising from your purchase and sales contract.

(\*) including without limitation loss of use, loss of time, loss of data, inconvenience, commercial loss, lost profits or savings.

## How To Get Warranty Service?

In most cases the authorised Motorola dealer which sold and/or installed your Motorola Personal Communicator and original accessories will honour a warranty claim and/or provide warranty service. Alternatively, for further information on how to get warranty service please contact either the customer service department of your service provider or Motorola's call centre at the telephone numbers below for your country.

Where, in the Country of purchase, there is a statutory requirement to provide extended repair service to consumers beyond the first year of purchase this warranty will be provided by Motorola Authorised Service Centres or Motorola directly appointed dealers in the country of purchase according to the terms of this warranty information document. However, please note that you will be referred back to the place of purchase, if the Motorola Dealer has purchased the product directly from Motorola, in the country of purchase of in a country where Motorola is not required to support supplementary repair service during the second year of purchase because of the statutory obligations that may apply to the seller or importer of the product, but not to the manufacturer, to provide an extended warranty to consumers beyond the first year.

## Claiming

In order to claim the warranty service you must return the Personal Communicator and/or accessories in question to

Motorola's Authorised Repair or Service Centre in the original configuration and packaging as supplied by Motorola. Please avoid leaving any supplementary items like SIM cards. The Product should also be accompanied by a label with your name, address, and telephone number; name of operator and a description of the problem. In the case of vehicular installation, the vehicle in which the Personal Communicator is installed should be driven to the Authorised Repair or Service Centre, as analysis of any problem may require inspection of the entire vehicular installation. In order to be eligible to receive warranty service, you must present your receipt of purchase or a comparable substitute proof of purchase bearing the date of purchase. The phone should also clearly display the original compatible electronic serial number (IMEI) and mechanic serial number [MSN]. Such information is contained with the Product.

You must ensure that all and any repairs or servicing is handled at all times by a Motorola Authorised Service Centre in accordance with the Motorola Service requirements

In some cases, you may be requested to provide additional information concerning the maintenance of the Products by Motorola Authorised Service Centres only, therefore it is important to keep a record of any previous repairs, and make them available if questions arise concerning maintenance

### **Conditions**

This warranty will not apply if the type or serial numbers on the Product has been altered, deleted, duplicated, removed, or made illegible. Motorola reserves the right to refuse free-of-charge warranty service if the requested documentation can not be presented or if the information is incomplete, illegible or incompatible with the factory records.

Repair, at Motorola's option, may include reflashing of software, the replacement of parts or boards with functionally equivalent, reconditioned or new parts or boards. Replaced parts, accessories, batteries, or boards are warranted for the balance of the original warranty time period. The Warranty Term will not be extended. All original accessories, batteries, parts, and Personal Communicator equipment that have been replaced shall become the property of Motorola. Motorola does not warrant the installation, maintenance or service of the products, accessories, batteries or parts.

Motorola will not be responsible in any way for problems or damage caused by any ancillary equipment not furnished by Motorola which is attached to or used in connection with the Products, or for operation of Motorola equipment with any ancillary equipment and all such equipment is expressly excluded from this warranty.

When the Product is used in conjunction with ancillary or peripheral equipment not supplied by Motorola, Motorola does not warrant the operation of the Product/peripheral combination and Motorola will not honour any warranty claim where the Product is used in such a combination and it is determined by Motorola that there is no fault with the Product. Motorola specifically disclaims any responsibility for any damage, whether or not to Motorola equipment, caused in any way by the use of the Personal Communicator, accessories, software applications and peripherals (specific examples include, but are not limited to: batteries, chargers, adapters, and power supplies) when such accessories, software applications and peripherals are not manufactured and supplied by Motorola.

### **What Is Not Covered By The Warranty**

This warranty is not valid if the defects are due to damage, misuse, tampering, neglect or lack of care and in case of alterations or repair carried out by unauthorised persons.

The following are examples of defects or damage not covered by this product warranty

1. Defects or damage resulting from use of the Product in other than its normal and customary manner.
2. Defects or damage from misuse, access to incompatible sources, accident or neglect.
3. Defects or damage from improper testing, operation, maintenance, installation, adjustment, unauthorised software applications or any alteration or modification of any kind.
4. Breakage or damage to antennas unless caused directly by defects in material or workmanship.
5. Products disassembled or repaired other than by Motorola in such a manner as to adversely affect performance or prevent adequate inspection and testing to verify any warranty claim.
6. Defects or damage due to range, coverage, availability, grade of service, or operation of the cellular system by the cellular operator.
7. Defects or damage due to moist, liquid or spills of food.
8. Control unit coil cords in the Product that are stretched or have the modular tab broken.
9. All plastic surfaces and all other externally exposed parts that are scratched or damaged due to customer normal use.
10. Leather cases (which are covered under separate manufacturer's warranties).
11. Products rented on a temporary basis.
12. Periodic maintenance and repair or replacement of parts due to normal wear and tear.

Depending on operating conditions and your usage habits, wear and tear might take place of components including mechanical problems related to Product housing, paint,

assembly, sub-assemblies, displays and keyboards and any accessories which are not part of the Product's in-box configuration. The rectification of faults generated through wear and tear and the use of consumable items like batteries beyond their Optimum Performance Time as indicated in the product manual is considered to be your responsibility and therefore Motorola will not provide the free Warranty repair service for these items

#### **Installed Data**

Please make and retain a note of all data you have inserted into your Product for example names, addresses, phone numbers, user and access codes, notes etc before submitting your Product for a Warranty service as such data may be deleted or erased as part of the repair or service process.

Please note if you have downloaded material onto your Product, for example ring tones, ring tunes, screensavers, wallpaper, games etc these may be deleted or erased as part of the repair process or testing process. Motorola shall not be responsible for such matters. The repair or testing process should not affect any such material that was installed by Motorola on your Product as a standard feature.

#### **Out Of Warranty Repairs**

If you request Motorola to repair your Product any time after the Warranty term or where this warranty does not apply due to the nature of the defect or fault, then Motorola may in its discretion carry out such repairs subject to you paying Motorola its fees for such a repair or it may refer you to an authorised third party to carry out such repairs.

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## *Preface*

### *Scope of this Manual*

This manual provides instructions for the operation of the D1000 PCMCIA Card.

### *Arrangement of This Manual*

This manual is arranged as follows:

- **Preface** - Contains the scope of the manual and its arrangement.
- **Chapter 1-Introduction** - Gives a general description of the D1000 and its specifications.
- **Chapter 2-Installation and Operation** - Gives information about the your D1000 package content and instructions that will enable you to use your D1000.

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## *Chapter 1 - Introduction*

### *General Description*

The D1000 is a 3G PCMCIA Card. It is an extended Type II PCMCIA Card, providing high speed data connections via cellular networks. It provides mobile user connection speeds comparable to wired ADSL connections. Additionally, the earpiece supplied with the card enables the user to enjoy D1000 voice capabilities.

As a 3G product, the D1000 complies with all key specifications as defined by the 3GPP. Key product features are:

- UMTS: WCDMA 2100, GSM 900/1800 and 1900-MHz Tri-band technology.
- GPRS High speed packet data (21 kbps UL, 84 kbps DL).
- WCDMA High speed packet data (64kbps UL, 384 kbps DL).
- 16MB Integrated Flash Memory.
- Integrated earpiece jack.
- External antenna support.

A general view of the D1000 is given in Figure 1.



*Figure 1. D1000 PCMCIA Card - General View*

## *D1000 Performance Specifications*

|                                                                             |                                                                                                                                                                          |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Frequency Bands Supported:</b><br>WCDMA2100<br>GSM 900/1800 and 1900 MHz | TX 1920 to 1980 MHz, RX 2110 to 2170 MHz<br>TX 880 to 915 MHz, RX 925 to 960 MHz<br>TX 1710 to 1785 MHz, RX 1805 to 1880 MHz<br>TX 1850 to 1910 MHz, RX 1930 to 1990 MHz |
| <b>TX Output Power:</b><br>WCDMA<br>GSM900, GSM1800/1900                    | +21 dBm<br>+33 dBm, +30 dBm                                                                                                                                              |
| <b>Operating Temperature:</b>                                               | 0 to +55 degrees Celsius                                                                                                                                                 |
| <b>RX Sensitivity:</b><br>WCDMA<br>GSM900, GSM1800/1900                     | <-106.7 dBm<br><-104 dBm, <-104 dBm<br><ul style="list-style-type: none"> <li>• Less than 1% BER for WCDMA</li> <li>• Less than 2% for GSM</li> </ul>                    |
| <b>Relative Humidity:</b>                                                   | 50 degrees Celsius 95% RH (non condensing 8 hours)                                                                                                                       |

## Chapter 2 - Installation and Operation

### Your Package Contents

Verify that your D1000 package contains the following:

| Item # | Item Description  | Part Number | Quantity |
|--------|-------------------|-------------|----------|
| 1      | D1000 PCMCIA Card | F3024AA     | 1        |
| 2      | Earpiece          | SYN8419B    | 1        |
| 3      | mPT CD-ROM        | 9986141U08  | 1        |

### Getting to Know Your D1000 PCMCIA Card

Figure 2 gives a detailed description of the D1000 PCMCIA card:

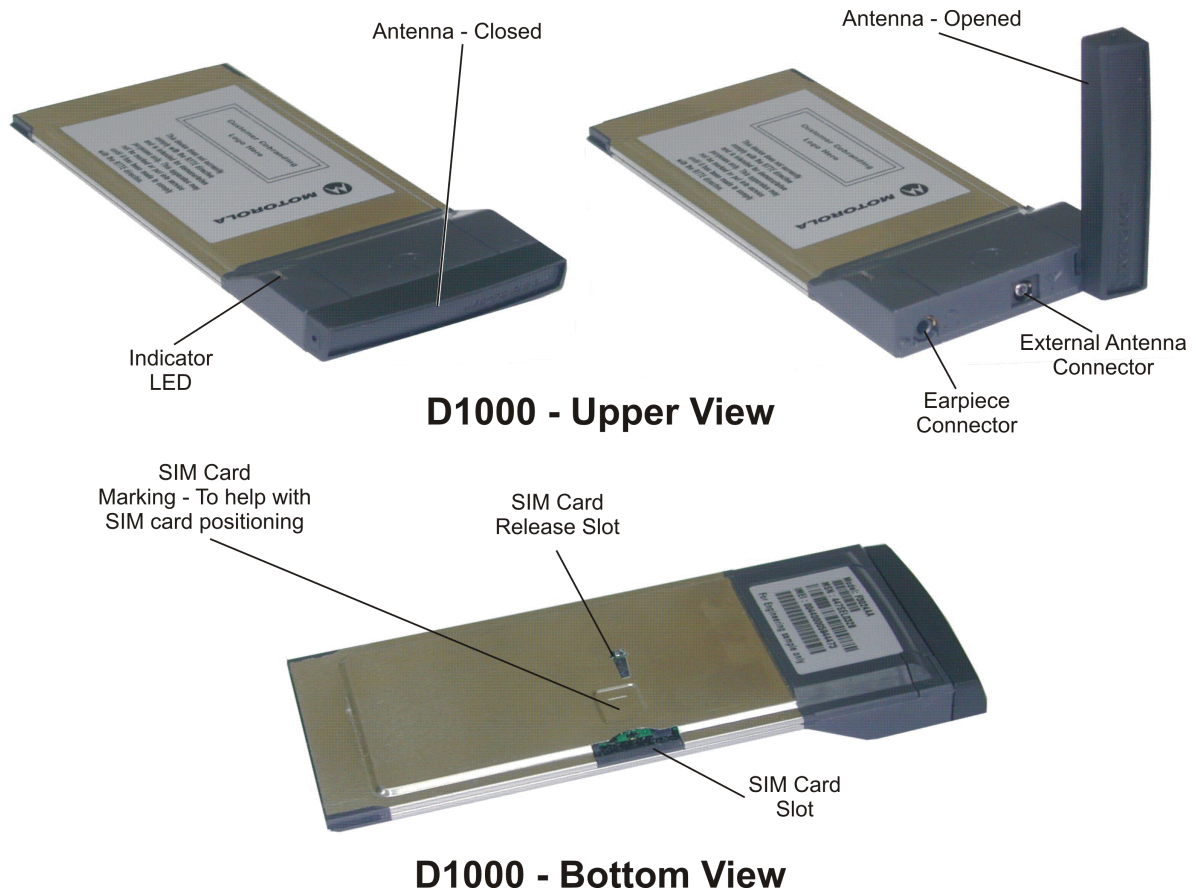


*Figure 2. D1000 Detailed Description*

## *Inserting a SIM Card Into your D1000*

Before installing the D1000 into your Laptop computer, insert a SIM card into the D1000 (see Figure 3):

1. Hold the D1000 with the bottom side up (facing you).
2. Insert a SIM card into the dedicated slot. Verify you insert the card according to the markings on the bottom cover and that the golden plated side of the SIM is facing down.
3. Gently push the SIM card until it is fully inserted into slot.

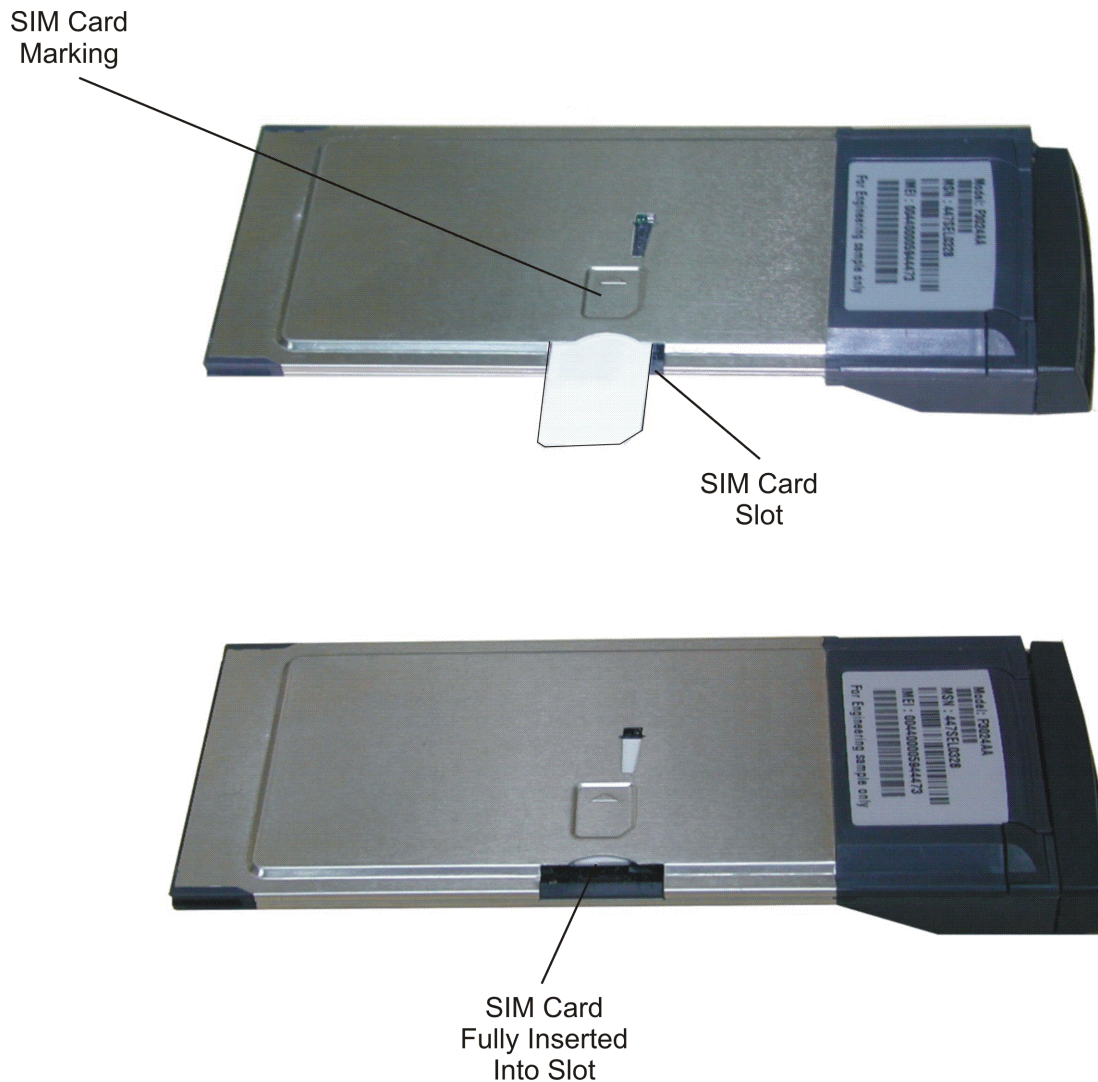
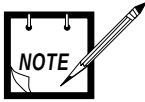


**Figure 3. Inserting a SIM Card**

## *Installing the D1000 on a Laptop Computer*



Before installing your D1000 on a Laptop computer, verify that the Motorola Phone Tool (mPT) application is installed on the Laptop.

Perform the following steps (see Figure 4):

1. Gently insert the D1000 into the PCMCIA slot. Verify that the D1000 is sliding along the guides.
2. Push the D1000 into the Laptop PCMCIA connector.
3. Open the antenna and verify that the indicator LED illuminates.

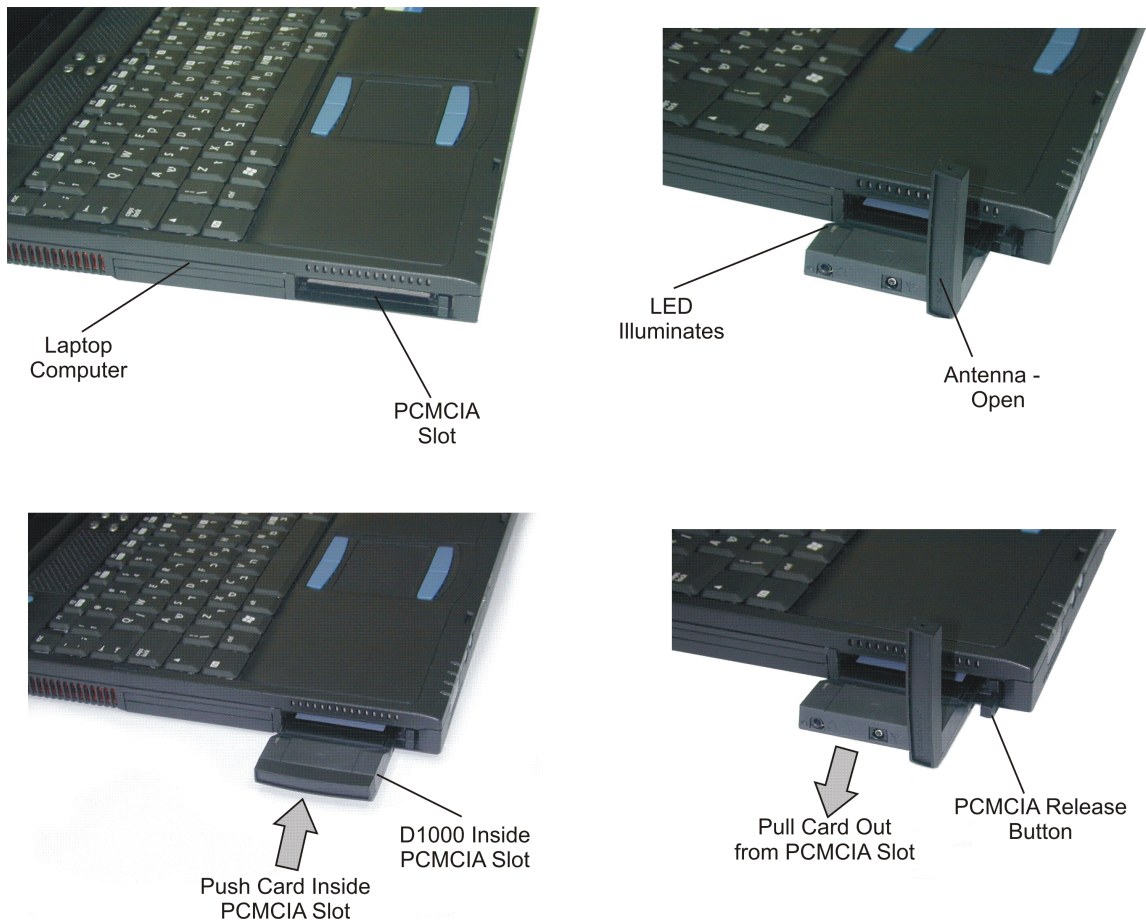


**Figure 4. Installing the D1000 on a Laptop Computer**

## ***Removing the D1000 from a Laptop Computer***

Perform the following steps (see Figure 4):

1. Press and release the PCMCIA release button to extend it out.
2. Press the PCMCIA release button again to release the D1000.
3. Gently pull the card out from the slot.

## ***Removing a SIM Card from your D1000***

Perform the following steps (see Figure 5):

1. Insert a Ball-tip pen or a mini flap-tip screwdriver into the SIM card release slot.
2. Gently push the SIM card out from the D1000.
3. Using your fingers, pull the SIM card fully out from the D1000.

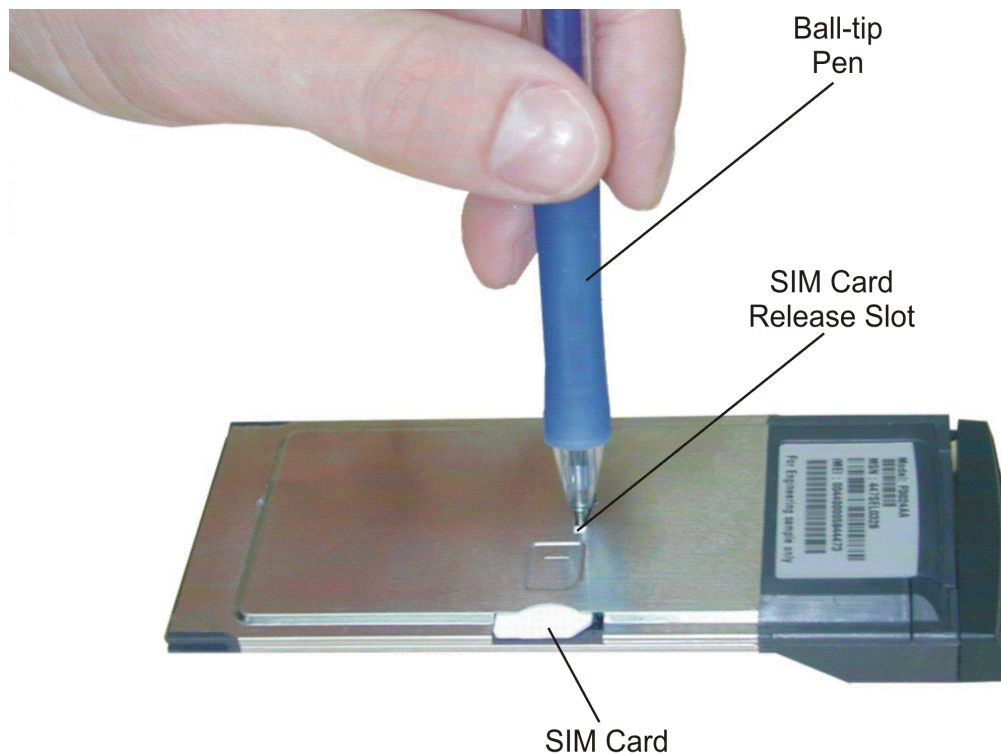


***Figure 5. Removing a SIM Card***





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