

**invision**

**PS6S1800M**

**Serial/Modem Charging Cradle**



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## User Guide

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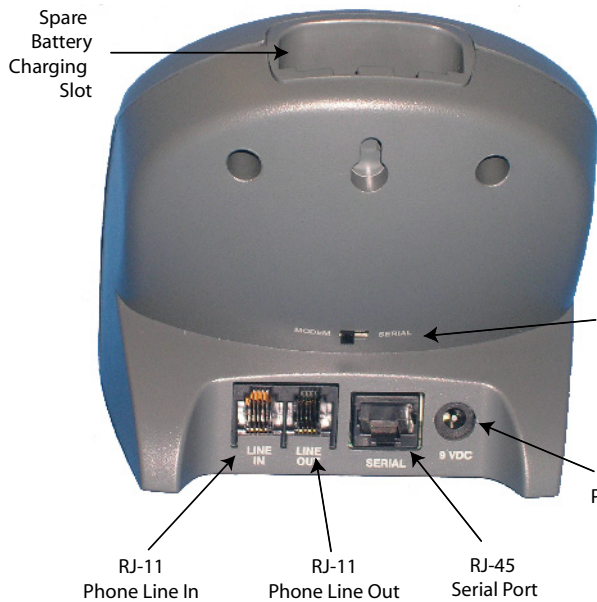
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## Introduction

The **invision PS6S1800M** serves as an essential data communications device, enabling you to synchronize the information on your Symbol® SPT 1700 or SPT 1800 terminal and the Palm Desktop software using HotSync® technology. It also charges both your terminal and a spare battery – all while performing HotSync operations via modem or serial connection.

Using the PS6S1800M, the SPT 1700 or SPT 1800 can HotSync with a host computer either directly through the serial cable or remotely through the phone lines.



A switch on the back of the cradle controls which type of sync the cradle is to perform. With customized or third party software, it can also be used to synchronize your SPT 1700 or SPT 1800 terminal with corporate databases and other host computers.

There are four connection ports on the rear of the PS6S1800M:

Ports	Function
<b>Line In</b> (use with standard RJ-11 connectors)	Used to connect the cradle to a standard analog telephone wall jack for modem communications.
<b>Line Out</b> (use with standard RJ-11 connectors)	Used to connect to a handset in a <i>loop-through</i> fashion to allow voice communications when the cradle is not being used for HotSync communications to other computers.
<b>Serial</b> (RJ-45 Serial Port)	Used for direct connection to your computer using the supplied RJ-45 to DB-9 cable. <i>Only use this port and cable if you intend to HotSync your terminal directly to your computer.</i>
<b>9VDC</b> (Power)	A standard barrel port used for connecting the Power Adapter. <i>This power adapter is not included.</i>

## Setting up the PS6S1800M

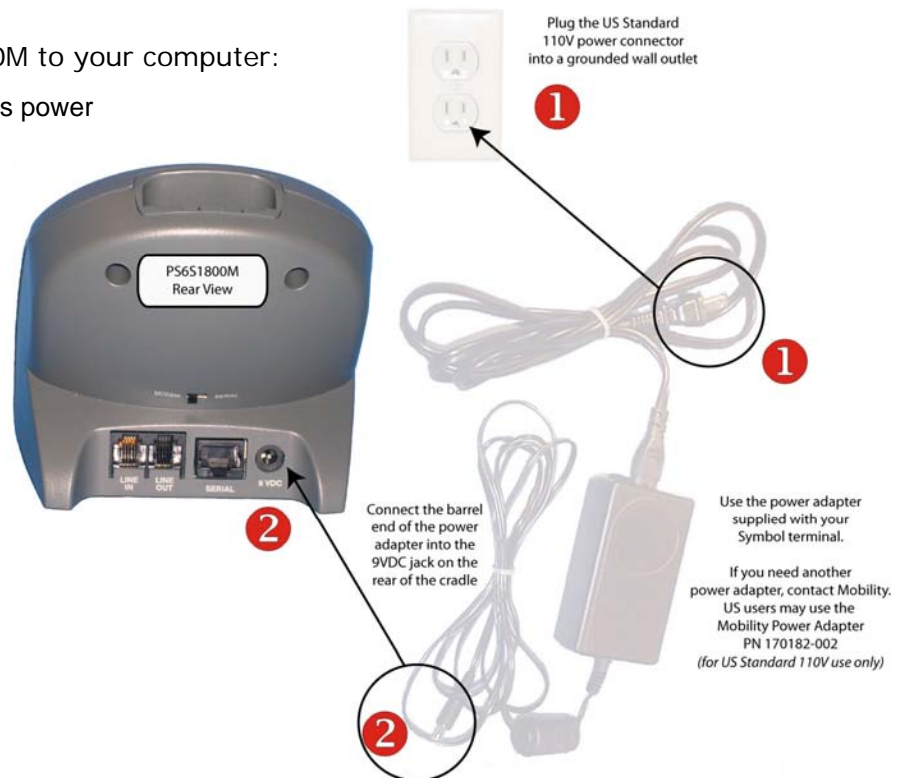
Setting up your PS6S1800M is easy and includes only these simple steps.

1. Power Connection
2. HotSync Connection:
  - a. Connect the serial cable to the computer (if you want to HotSync with the computer), or
  - b. Connect the modem (if you want to HotSync with a remote location via the modem)

### Power Connection

To connect your PS6S1800M to your computer:

- 1 Connect your Symbol's power adapter into a US standard 110V wall outlet.
- 2 Connect the barrel end of the power adapter into the 9VDC jack on the rear of the cradle.



The PS6S1800M cradle is compatible with the power adapter used by your Symbol 1700 or 1800 terminal. If replacing the power adapter, US users may use the Mobility Power Adapter PN 170182-002, a universal "auto-switching" power adapter. This product ships with a detachable US Standard 110V power cord that might be changed to match other power receptacles, if you have a different power requirement. You might also use a power cord converter to allow the power adapter to plug into other power receptacles. If you have any other questions, contact Mobility.

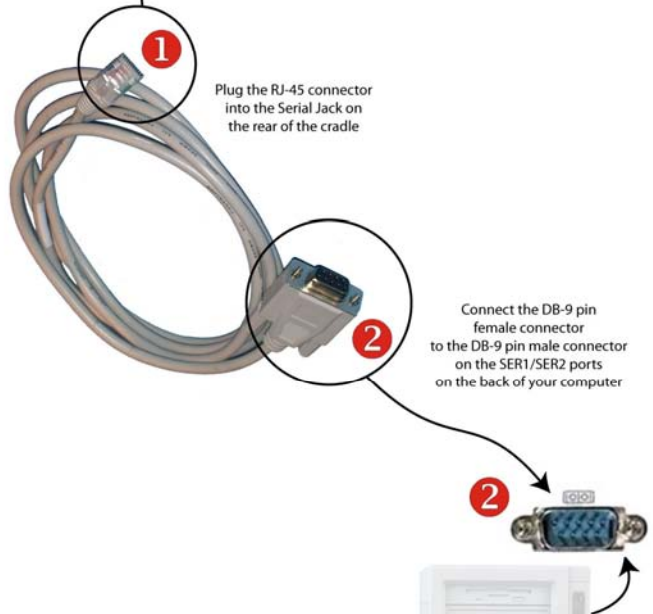
### HotSync Connection

Before you prepare the PS6S1800M cradle for HotSync communications, you must decide which type of HotSync communication you desire. (1) HotSync with the computer, or (2) HotSync with a remote location.

### HotSync with the Computer

To HotSync your terminal with data on your computer, follow these simple steps:

- 1 Plug the RJ-45 connector into the Serial Jack on rear of the PS6S1800M cradle.
- 2 Turn off your computer and plug the DB-9 connector into the serial communications port on your computer.
- 3 Change the Modem/Serial Switch to the "Serial" position.



Caution

Your PS6S1800M requires a dedicated port. It cannot share a port with an internal modem or other device. If you are unsure about the location of the serial port on your computer, refer to the user's manual supplied with the computer.

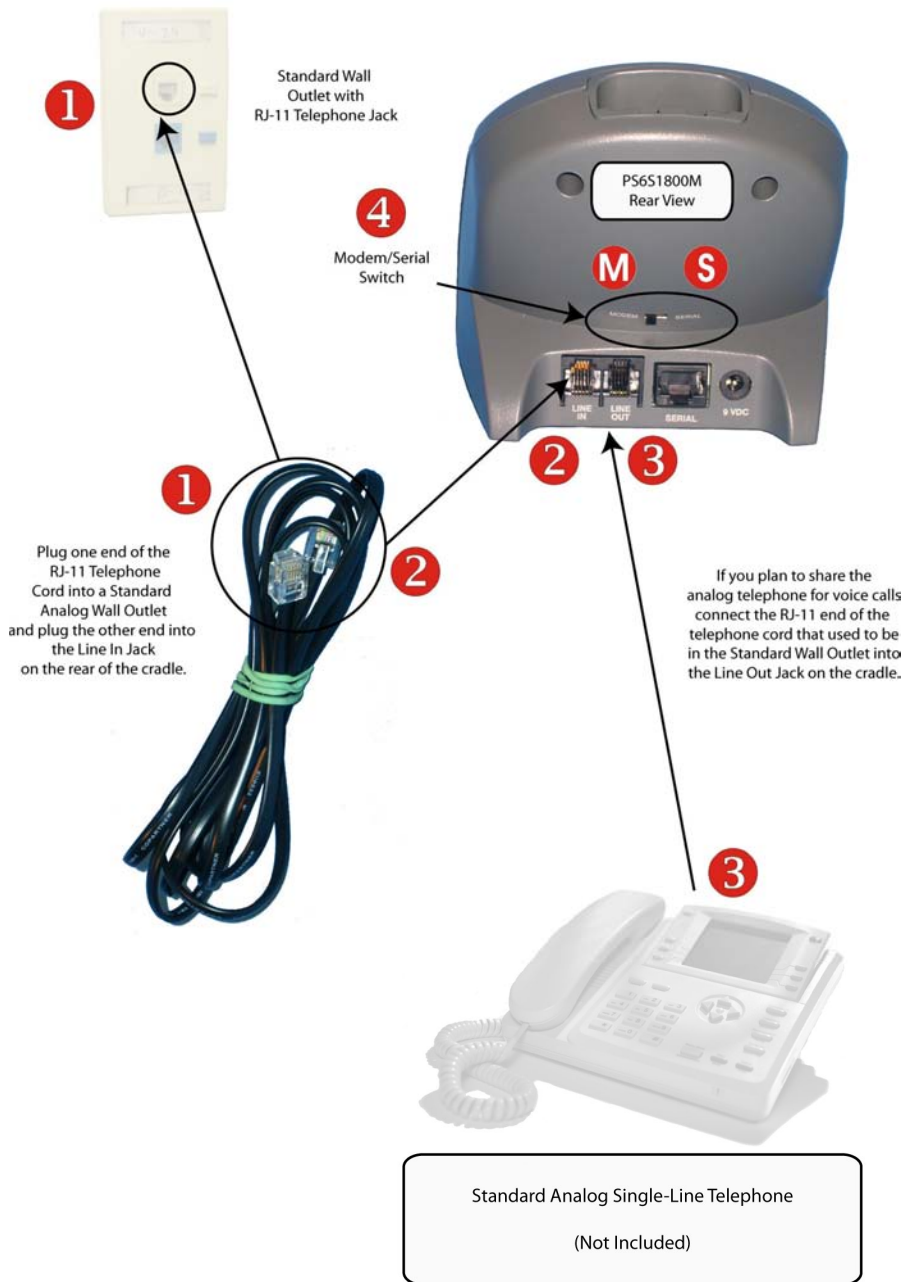


Standard desktop or laptop computer with at least one male DB-9 pin connector. (Not Included)

### HotSync with a Remote Location

To HotSync your terminal with data at a remote location, follow these simple steps:


- 1 Connect one RJ-11 end of the included telephone cord into a standard analog telephone wall jack.
- 2 Connect the other RJ-11 end to the "Line-In" jack on the back of the PS6S1800M cradle.
- 3 If you plan to share your telephone line for voice communications, connect the RJ-11 end of the analog telephone cord that "used to be in the wall" (before step 1 above) into the "Line-Out" jack on the back of the cradle.
- 4 Set the Modem/Serial switch to Modem for modem operations.



## Operating the Cradle

The Sync Select switch on the back of the PS6S1800M cradle can be set in either of two positions:


### MODEM


Move the switch to the left-hand position for modem communications. While in this position, the cradle automatically wakes up the SPT terminal (if it is asleep), initializes the modem electronics, and performs a modem HotSync when the HotSync button  is pressed. *You will be able to hear the modem working while it is dialing and making the HotSync connection.*



MODEM ← → SERIAL

### SERIAL

Move the switch to the right-hand position for serial communications. While in this position, the cradle automatically wakes the SPT terminal (if it is asleep) and performs a serial HotSync when the HotSync button  is pressed.

-  If the terminal has been previously configured for these HotSync activities, there is nothing left to do but "Push the HotSync button - ."



In order to properly perform a HotSync, the SPT terminal, computer, and/or remote location must be correctly configured, and the cradle and phone line or serial cable must be plugged in as previously described.

See the Product Reference Guide provided by the terminal manufacturer for more information on configuring the SPT terminal, computer, or remote location for HotSync operations.



### Charging the SPT Terminal Battery

The cradle may also be used to charge the SPT terminal lithium ion battery. To charge the terminal's battery:

1. Ensure the cradle is powered on.
2. Insert the terminal in the cradle as shown.
  - a. The Terminal Battery Charge LED will turn "RED" to indicate that the terminal is charging.
  - b. When the terminal has completed charging, the light will turn "GREEN" to indicate the battery is fully charged (approximately 3 hours).



### Spare Battery Charging



To charge the terminal's spare battery:

1. Orient the battery so that the charging contacts are facing down and toward the back of the cradle
2. Insert the battery in the spare battery charging slot in the top of the cradle as shown. Then gently press down on the battery to ensure proper contact.

The Spare Battery Charge LED turns "RED" to indicate the battery is charging. The LED turns "GREEN" when the battery is fully charged (approximately 3 hours).

## Product/Technical Support

Mobility is committed to providing its customers with first-class customer service and technical support. For your convenience, a few troubleshooting techniques are provided below that might help you fix your problem quickly and easily. If you have a different issue, or if you have tried these and they didn't resolve your problem, please feel free to contact Technical Support at:

Mobility Electronics  
 9918 Via Pasar  
 San Diego, CA 92126  
 Phone (858) 880-2225  
 Fax: (858) 530-2733  
 E-mail: [handheld\\_connectivity@mobl.com](mailto:handheld_connectivity@mobl.com)  
 Web: [www.invisioncradles.com](http://www.invisioncradles.com)

If you use the website, please select the Cradles & Adapters menu option from the Support menu.



## Product Registration

A product registration card is included with your PS6S1800M product. Please fill out the registration card and drop it in the mail so that we will know who you are if you ever need to call. While registration is not required to resolve warranty claims, it will help make any warranty claim easier to complete. For your convenience, you may also register online at:

[www.invisioncradles.com](http://www.invisioncradles.com)

## Troubleshooting

**Symptom:** Terminal cannot communicate through the serial cable.

Possible Cause	Action
The serial cable is not connected properly.	Check to make sure that the serial cable is connected to the cradle and to the host computer correctly.
The terminal is not fully seated in the cradle.	Remove and re-insert the terminal into the cradle. Make sure it is firmly seated.
Communications software is not installed, or is not configured properly.	Perform setup as described by the terminal manufacturer.
Modem/Serial switch is not set correctly.	Check to be sure the Modem/Serial switch is set to Serial.

**Symptom:** Attempt by the cradle to HotSync the terminal through the modem failed.

Possible Cause	Action
The terminal was removed from the cradle while the HotSync was in progress.	Place the terminal back in the cradle to allow the cradle to make another HotSync attempt.
Terminal or cradle was disconnected from the telephone line while the HotSync was in progress.	Unplug the modem cable for 30 seconds to allow the local telephone connection to hang up. Be sure to close any open windows on the terminal and any modem connections.
Terminal's battery is dead.	Wait for two (2) minutes before trying a HotSync again to allow the battery to recharge.
Active Error dialog box on terminal.	The Error dialog box on the terminal must be cleared. Use the stylus to press "OK" on the terminal's touchscreen.
Modem or telephone lines being operated in an electrically noisy environment.	Modify init string in US/Canada to "AT&F\N5" forcing MNP error correction, or "AT&F+MS=V32B" forcing B32bis (14,400 bps) connection.  For International operation use "AT&F\N5; +GCI=xx;" forcing MNP error correction or "AT&F+MS=V32B; +GCI=xx;" forcing V32bis (14,400 bps) connection.

**Symptom:** Terminal cannot communicate through the modem.

Possible Cause	Action
The modem cable is not connected properly.	Check to be sure the modem cable is connected securely to the cradle and to the analog telephone jack.
The cradle is not getting power.	Check to be sure the power cable is connected securely to both the cradle and to the AC power.
The terminal is not fully seated in the cradle.	Remove and re-insert the terminal into the cradle. Make sure it is firmly seated.
Communications software is not installed, or is not configured properly.	Perform setup as described by the terminal manufacturer.
Configuration parameters are lost after a cold boot (hard reset) is performed.	Perform setup as described by the terminal manufacturer.
Connection method for the modem is set incorrectly.	Perform setup as described by the terminal manufacturer.
Problems in the telephone lines that prevent communication.	Connect a conventional telephone to the phone line and dial the remote modem to verify that the telephone lines are working correctly. If you do not hear the remote modem answer your call and issue the "modem connect signal," contact the Remote System Administrator. If you do hear the "connect signal," the problem is with your setup or equipment. Check your cables, cords, connections, and configuration setup before trying again.
Modem/Serial switch is not set correctly.	Check to be sure the Modem/Serial switch is set to Modem.

**Symptom:** Terminal has successfully connected through the modem, but no data is being transmitted over the connection.

Possible Cause	Action
Data is being transferred over the S24 radio link.	To temporarily disable the radio link, and force the data transmission to use the modem connection, follow the instructions provided by the manufacturer for communicating with radio links.  If you plan to use a wireless connection later, don't forget to re-enable the radio link.

### Other HotSync Problems

If you require more information on the HotSync process, please refer to the HotSync chapter in your *SPT Product Reference Guide*. For help with other technical issues, contact *Mobility Technical Support* using the contact information provided at the start of this chapter.

## Appendix A – Regulatory Information

### Radio Frequency Interference Requirement

#### *FCC Statement*



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 in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or television technician for help.

Changes or modifications not expressly approved by Mobility Electronics could void the user's authority to operate the product.

#### ***Radio Frequency Interference Requirement - Canada***

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

#### ***Telecom Compliance, Warnings, and Notices***

##### **United States**

The applicable regulatory notices for the United States include:

- This equipment complies with Part 68 of the FCC rules and requirements adopted by ACTA. On the bottom of this equipment is a label that contains a product identifier in the format US: AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.
- The Ringer Equivalency Number (REN) determines the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in devices not ringing in response to an incoming call. In most areas, the sum of RENs should not exceed five (5.0). The REN for this product is part of the product identifier that has the format US: AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point.
- This equipment must be connected to the telephone network or premises wiring using a compatible modular jack (RJ11C) compliant with the applicable FCC Part 68 rules and requirements adopted by ACTA. A compliant telephone cord and modular plug are provided with this product. It is designed to be connected to a compatible modular jack that is also compliant.
- If this equipment, the Serial/Modem Charging Cradle PS6S1800M, causes harm to the telephone network, the telephone company will notify you in advance that

temporary discontinuance of service may be required. Also, you will be advised of your right to file complaint with the FCC if you believe it is necessary.

- The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.
- If trouble is experienced with this equipment, the Serial/Modem Charging Cradle PS6S1800M, then contact Mobility Electronics (858-880-2225) for repair or warranty information. 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.
- This equipment must not be used on party lines.
- If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this modem does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company.
- No user repairable parts are contained within this equipment.

## Canada

This equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number on the product label. 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.

## The European Economic Area

Mobility Electronics, hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A Declaration of Conformity may be obtained from [http://www.mobilityelectronics.com/hh\\_cradle\\_support/](http://www.mobilityelectronics.com/hh_cradle_support/). The modem is designed to work with the following Public Switched Telephone Networks: Belgium, Netherlands, Luxemburg, Germany, France, Italy, Finland, Sweden, Norway, Switzerland, Denmark, UK, Ireland, Spain, Austria, Portugal, Greece, Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Hungary, Cyprus, Malta and Slovenia.

English	Hereby, Mobility Electronics, declares that this modem is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Finnish	Mobility Electronics vakuuttaa täten että modem tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Dutch	Hierbij verklaart Mobility Electronics dat het toestel modem in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG
French	Par la présente Mobility Electronics déclare que l'appareil modem est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE
Swedish	Härmed intygar Mobility Electronics att denna modem står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Danish	Undertegnede Mobility Electronics erklærer herved, at følgende udstyr modem overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF
German	Hiermit erklärt Mobility Electronics die Übereinstimmung des Gerätes modem mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG.

Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Mobility Electronics ΔΗΛΩΝΕΙ ΟΤΙ modem ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΑΣ ΟΔΗΓΙΑΣ 1999/5/
Italian	Con la presente Mobility Electronics dichiara che questo modem è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Spanish	Por medio de la presente Mobility Electronics declara que el modem cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE
Portuguese	Mobility Electronics declara que este modem está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Malti	Hawnhekk, Mobility Electronics, jiddikjara li dan modem jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Dirrettiva 1999/5/EC
Estonian	Käesolevaga kinnitab Mobility Electronics seadme modem vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Hungarian	Alulírott, Mobility Electronics nyilatkozom, hogy a modem megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Slovak	Mobility Electronics týmto vyhlasuje, že modem spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Czech	Mobility Electronics tímto prohlašuje, že tento modem je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Slovene	Šiuo Mobility Electronics deklaruoja, kad šis modem atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Lithuanian	Šiuo Mobility Electronics deklaruoja, kad šis modem atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Latvian	Ar šo Mobility Electronics deklarē, ka modem atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.



## Appendix B – Warranty

Mobility Electronics, Inc. warrants this product against defects in materials and workmanship to the *original* purchaser (or the first purchaser in the case of the remanufactured product being sold) for a period of one (1) year from the date of shipment. This warranty is limited to a repair or replacement of the product. To obtain warranty service, the purchaser must first call Mobility Electronics, Inc. for an RMA number, then return the product to Mobility Electronics, Inc. for repair or replacement.

Purchaser shall prepay shipping charges for products returned to Mobility Electronics, Inc. Mobility Electronics, Inc. will pay for return of the products to purchaser, except that purchaser shall pay all shipping charges, duties, and taxes for products returned to Mobility Electronics, Inc. from a country other than the United States.

Mobility Electronics, Inc. makes no other warranty of any kind with regard to this material. Mobility Electronics, Inc. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Within thirty (30) days of receipt should the product fail for any reason other than damage due to customer negligence; purchaser has the right to return the product for a full refund of the purchase price. If the purchaser wishes to upgrade or convert to another Mobility Electronics, Inc. product within the thirty (30) day period, purchaser has the right to return the product and apply the full purchase price toward the purchase of the other product. Any other return will be subject to Mobility Electronics, Inc.'s existing restocking policy.

MOBILITY ELECTRONICS, INC. WARRANTS THAT THIS PRODUCT IS NEW OR HAS BEEN REMANUFACTURED TO MEET NEW STANDARDS USING NEW OR SERVICEABLE USED PARTS. MOBILITY, INC. MAKES NO OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THIS PRODUCT. MOBILITY, INC. SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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## MOBILITY ELECTRONICS, INC.<sup>®</sup>

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