Compliance Statement Insert

Device Name: RF Identification Serial Radio Module

Model Number: IM4
FCC ID: EHAIM4

The responsible party for the compliance of this device is:

Intermec Technologies Corporation
6001 36th Avenue West
Everett, WA 98203 USA
(425) 348-2600

This product conforms to the following approvals. The user(s) of this product are cautioned to use accessories and peripherals approved by Intermec Technologies Corporation. The use of accessories other than those recommended, or changes to this product that are not approved by Intermec Technologies Corporation, may void the compliance of this product and may result in the loss of the users authority to operate the equipment.

This device complies with Part 15 of the FCC Rules, and the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Digital Emissions Compliance

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

Canadian Digital Apparatus Compliance

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Warning: per the FCC and Canadian RF (radio frequency) exposure requirements,

1) Antennas must be supplied and installed as recommended by Intermec Technologies Corporation to ensure compliance to RF exposure requirements. The antennas approved for use are listed in the Intermec accessories guide for the IM4 PC Card. Correct antenna mounting is fully described within the Intermec IM4 PC Card Users Guide.
2) When installing and using Intermec Technologies Corporation-approved remote antennas associated the RFID reader, a 20-cm (8-inch) passing distance must be maintained from any body part of the user, or near by persons, and the remote antenna. The antenna must not be touched during transmitter operation.
3) Cables attached to the remote antennas must have a minimum length as provided from Intermec Technologies Corporation to insure the proper losses to control RF exposure.
4) RF safety requirements mandate this device cannot be co-located with other transmitters unless such co-location is specifically approved by the FCC.
5) Integrators of the radio module are obligated to pursue regulatory approval and labeling of this transmitter under FCC Part 2 and Part 15 rules. Industry Canada approval and labeling requirements must be met for marketing of the integrated product in Canada.
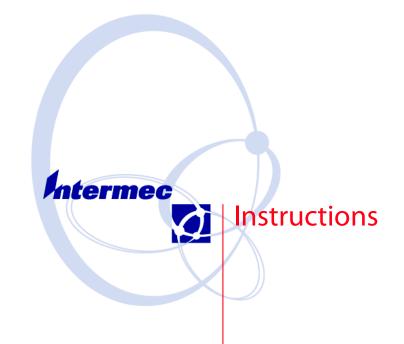
Warning: Per Canadian RF exposure requirements,

1) The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc.gc.ca/rpb

`*578-100-137A*`

578-100-137A

Instructions

IP4
Handheld
Reader

Packing List

Check to ensure that you receive these items:

- Intermec® Handheld Reader (UHF)
- Battery Pack (p/n: 318-014-001)
- Compliance Statement
- Warranty Card

Setting up Your 700 Color Mobile Computer

Before using your Handheld Reader with the 700 Color Mobile Computer you need to load the Handheld Reader CAB files onto your mobile computer. Do that by going to either of these two sources:

- 700 Series Color Software Tools CD-ROM (p/n: 235-099-001)
- Intermec Developer's Library available on the Intermec web site www.intermec.com

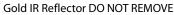# Connecting the Handheld Reader to the 700 Color Mobile Computer

RF Exposure regulations limit exposure to radiofrequency (RF) radiation. To comply with these regulations, operators of this device must maintain a distance of at least 20 cm. (8 inches) from the cover on the antenna assembly (The cover on the antenna is the dome shaped surface). While the device is on, the operator's body and parts of the body such as eyes, hands, or head, must be 20 cm. (8 inches) or farther from the cover of the antenna assembly.
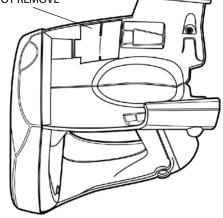
Note: DO NOT remove the IR reflector from the inside of the Handheld Reader. This IR reflector aids in the communication of the IrDA signal between the Handheld Reader and your Mobile Computer

Note: You also need to install the IR Reflector on your 700 Mobile Computer when using it with your Handheld Reader. Please reference document *Installation Instructions IR Reflector for 700 Color Mobile Computer using an IP3 Reader Handle* pn: 962000048A.
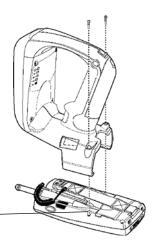
Gold IR Reflector DO NOT REMOVE

1 Slide your Mobile Computer into your Handheld Reader.

2 Ensure it slides in all the way. Your Mobile Computer communicates with the Reader via the IrDA. Therefore, the IrDA signal passing from the Handheld Reader must have a good IrDA acceptance on the side of the Mobile Computer. You will hear a click when you have the Mobile Computer completely inserted into the Handheld Reader.

Mobile Computer fully engaged into Handheld Reader

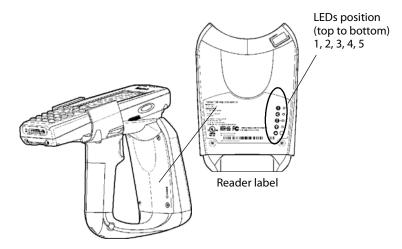**3** Attach the two retaining screws. Ensure that they go straight into the mobile computer openings.

Ensure retaining screws go straight into the slots on your mobile computer

Removing the 700 Color Mobile Computer from Handheld Reader

4 Remove the two retaining screws.

5 Grasp the 700 Color Mobile Computer at the display end, and simultaneously lift up (away from the Reader), then pull forward.

Handheld Reader LED Location and Explanation

LEDs position (top to bottom) 1, 2, 3, 4, 5
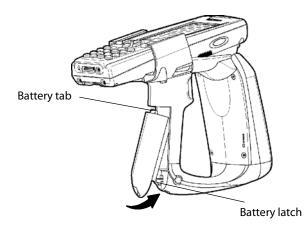
Reader label

Handheld Reader LED Explanation

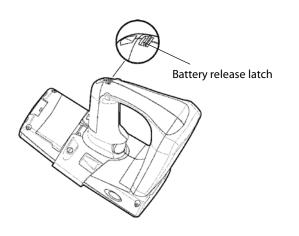| LED	Indicates	Meaning
1	PWR	+5 Power is On. Reader is ready. LED Green
2	HOST COMM	Data communication with Host is active. LED Green
3	RF ON	RF Power is On. LED Green
4	TAG COMM	Valid tag transaction. LED Green
5	BATT	Battery condition: Low (RED) less than 20% capacity Full (GREEN) more than 80% capacity Between 20-80% capacity (ORANGE)

Battery Installation and Removal

To charge the battery contained in your Handheld Reader, it is necessary to remove the battery from the handle and place it in the IP3U Dual Battery Pack Charger. This charging unit charges the battery in four hours.

1 To **install** the battery into the Handheld Reader, insert the battery (tilt to fit into notch) into the compartment opening and press in until the latch on the bottom of the battery snaps closed. The battery tab on the top of the battery pack fits into the notch in the compartment.
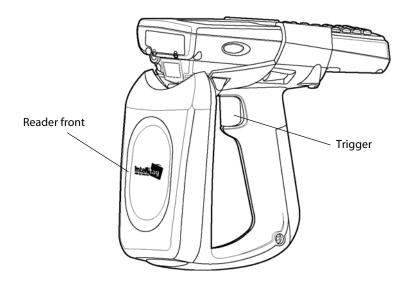
Battery tab

Battery latch

2 To **remove** the battery pack, push the battery release latch forward and remove the battery pack from the handle.

Battery release latch

Using the Handheld Reader

1 Charge battery four hours before using the first time.

2 Squeeze trigger on Reader to check capacity of battery (bottom LED).

3 Aim the Reader front at the RFID Tag and squeeze the trigger. To obtain a good first time read, you need to be within three feet of the RFID Tag.

Reader front

Trigger

Performance Specifications

You can expect to read at least six tags per second up to three feet. Attempting to read tags beyond these specifications produces poor results.

Sometimes using the Reader continuously reading tags may result in the unit overheating. This causes the Reader to stop reading tags. Allow the Reader to cool and get back within temperature range then the Reader will return to good tag reads.

915 MHz Specifications

Frequency reference Source	Spec Detail
Source type	Frequency hopper
Frequency band	902-928 MHz
Transmitter	Spec Detail
Output power 1 w maximum	minimum: 28.5 dBm typical: 29.5 dBm maximum: 30.0 dBm
Modulation	99%, 40 dB on/off
Data Rates	33 to 40 kbps

Environmental Specifications

Temperature	Spec Detail
Operating	32°F to +122°F (0°C to +50°C)
Non-Operating	-22°F to +158°F (-30°C to +70°C)
Humidity	Spec Detail
Operating	5-95% Relative, Non-Condensing

Overall Performance

Dispatch Rates	Spec Detail
RFID tag identification rate	At lease six tags per second with one to ten tags in the RF field, located at half the maximum read distance from the Reader front panel.
RFID tag read distance	36 inches
RFID tag data exchange rates	Read a tag containing 8 bytes of data within 50 mS. Perform a verified write to a tag at an average rate of 75 mS per byte per tag.

Firmware Architecture

Firmware	Spec Detail
	Communicates in one mode: Application Peripheral Interface (API).
Protocol/Compatibility	ANSI NCITS 256.2000 for API, part 2, part 3-1.

Reader Configuration Access Summary

Function	Responsibile Party	Control Machanism
Change Country Code	Factory or Intermec Field Technician	Hardware key or configuration tag etc.
Download updated firmware	Remote or on-site field technician	Intermec-only password
Setup, system configuration not secured at higher level (i.e. change battery wake up default etc.)	Customer System Administrator	Configuration file, etc.

Global Services and Support

Warranty Information

To understand the warranty for your Intermec product, visit the Intermec web site at http://www.intermec.com and click **Service & Support**. The Intermec Global Sales & Service page appears. From the **Service & Support** menu, move your pointer over **Support**, and then click **Warranty**.

Disclaimer of warranties: The sample code included in this document is presented for reference only. The code does not necessarily represent complete, tested programs. The code is provided "as is with all faults." All warranties are expressly disclaimed, including the implied warranties of merchantability and fitness for a particular purpose.

Web Support

Visit the Intermec web site at http://www.intermec.com to download our current manuals in PDF format. To order printed versions of the Intermec manuals, contact your local Intermec representative or distributor.

Visit the Intermec technical knowledge base (Knowledge Central) at http://intermec.custhelp.com to review technical information or to request technical support for your Intermec product.

Telephone Support

These services are available from Intermec Technologies Corporation.

Service	Description	In the U.S.A. and Canada call 1-800-755-5505 and choose this option
Order Intermec products	• Place an order. • Ask about an existing order.	1 and then choose 2
Order Intermec media	Order printer labels and ribbons.	1 and then choose 1
Order spare parts	Order spare parts.	1 or 2 and then choose 4
Technical Support	Talk to technical support about your Intermec product.	2 and then choose 2
Service	• Get a return authorization number for authorized service center repair. • Request an on-site repair technician.	2 and then choose 1
Service contracts	• Ask about an existing contract. • Renew a contract. • Inquire about repair billing or other service invoicing questions.	1 or 2 and then choose 3

Outside the U.S.A. and Canada, contact your local Intermec representative. To search for your local representative, from the Intermec web site, click **Contact**.

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IP4 Handheld Reader Instructions

P/N 943-002-001