

The Intermec logo is displayed in a bold, blue, sans-serif font. It is positioned on the left side of the page, partially overlapping a large, light blue graphic consisting of several overlapping circles and a central square. A vertical red line extends downwards from the square part of the graphic.

**Intermec**



## Quick Start Guide

**IP3**

**Intellitag Portable  
Reader (UHF)**

# The Fuel Cell Advantage

Intermec's Mobion™ fuel cell powered RFID handle will increase runtime 2 to 5 times over standard operation.\*

## Packing List

Check to ensure that you receive these items:

- Intermec® IP3UA2103 Fuel Cell Powered Intellitag Portable Reader
- Battery Pack (p/n 318-014-001)
- Compliance Statement
- Warranty Card
- Quick Card

## Setting up Your 700 Color Mobile Computer

Before using your Portable Reader with the 700 Color Mobile Computer you need to load the Portable 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)
- Intellitag Developer's CD (p/n: ITD001)

## Important Information

- Save this manual for future reference.
- Follow all instruction and warnings provided by the manufacturer when handling the Intellitag Portable Reader.
- This unit is intended for occassional outdoor use.  
Do not store outdoors.

\* Performance may vary based on RFID use.

# Connecting the Portable Reader to the 700 Color Mobile Computer

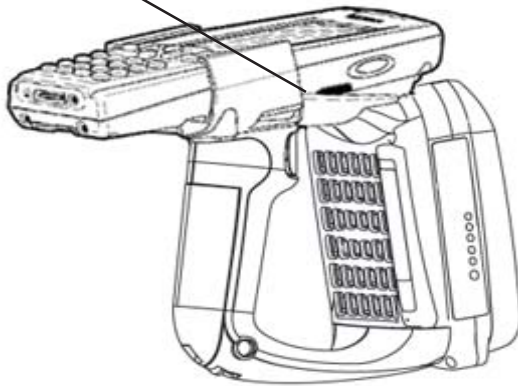


RF Exposure regulations limit exposure to radio frequency (RF) radiation. To comply with these regulations, operators of this device must maintain a distance of at least 20cm. (8 inches) from the cover on the antenna assembly (The cover on the antenna is the dome shaped surface). While the device is on, the operator's body and parts of the body such as eyes, hands or head, must be 20cm. (8 inches) or farther from the cover of the antenna assembly.



**Note:** DO NOT remove the reflective tape from the inside of the Portable Reader. This reflective tape aids in the communication of the IrDA signal between the Portable Reader and your Mobile Computer.

Reflective tape DO NOT REMOVE



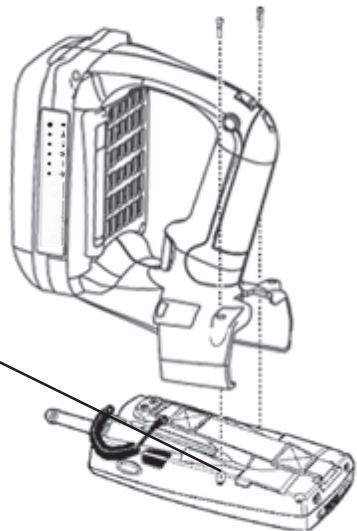
1. Slide your Mobile Computer into your Portable Reader.
2. Ensure it slides in all the way. Your Mobile Computer communicates with the Reader via the IrDA. Therefore, the IrDA signal passing from the Portable Reader must have a good IrDA acceptance on the side of the Mobile Computer. You will hear a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

Mobile Computer fully engaged into Portable Reader



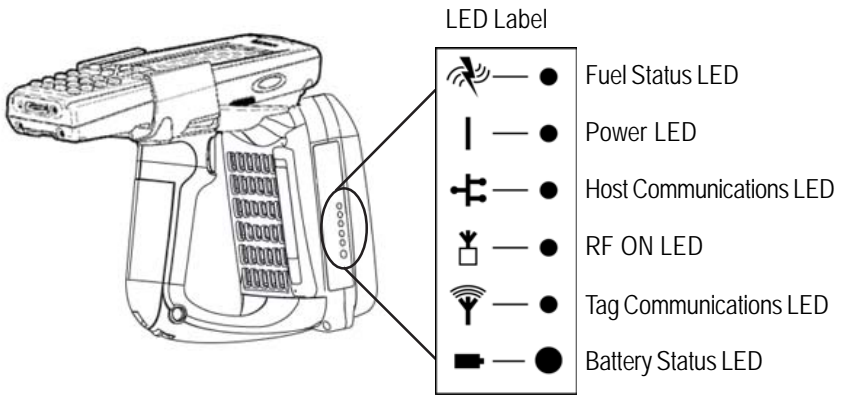
3. Attach the two retaining screws. Ensure that they go straight into the mobile computer openings.

Ensure retaining screws go straight into slots on mobile computer



# Removing the 700 Color Mobile Computer from Portable Reader

1. Remove the two retaining screws.
2. Grasp the 700 Color Mobile Computer at the display end, and simultaneously lift up (away from the Reader), then pull forward.



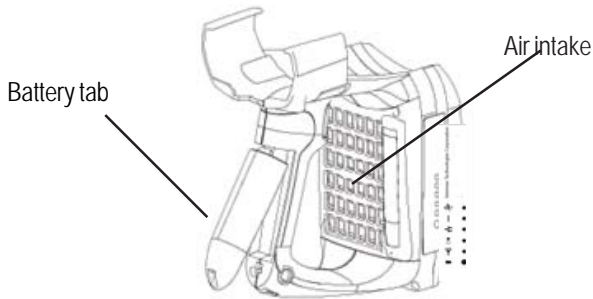
## Portable Reader LED Location and Explanation

LED	Indicates	Meaning
1	Fuel Status	Cartridge fuel level: RED - Replace fuel cartridge
2	PWR	+5 Power is On. Reader is ready.
3	HOST COMM	Data communication with Host is active.
4	RF ON	RF Power is On.
5	TAG COMM	Valid tag transaction.
6	BATT	Battery condition: RED - Low GREEN - Full ORANGE - More than 20% but less than 80%

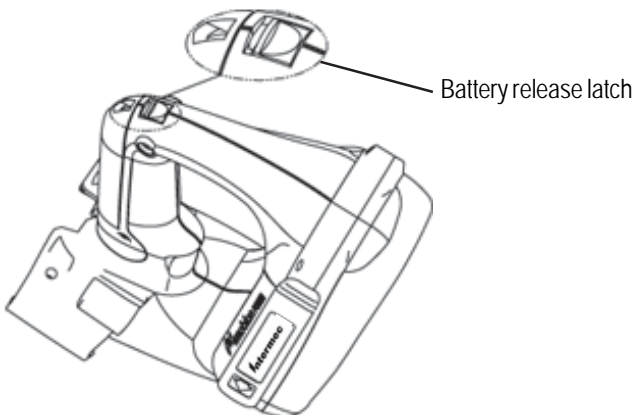
# Battery Installation and Removal

To charge the battery contained in your Portable 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 Portable 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.



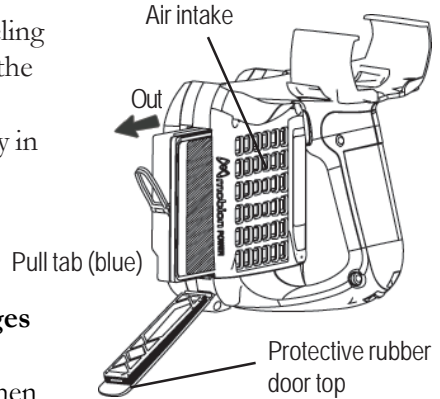
2. To **remove** the battery pack, push the battery release latch forward and remove the battery pack from the handle.



# Installing and Replacing the Fuel Cell Cartridge

## Removing an empty cartridge

1. Open fuel cartridge chamber by peeling protective rubber door open from the TOP, exposing fuel cartridge.
2. Grasp pull tab (blue) and pull firmly in direction of arrow. Cartridge will slide out.
3. Dispose of cartridge (see below).



## Handling and Disposing of Cartridges

### Empty Cartridges

- No special handling is required when disposing of used cartridges.

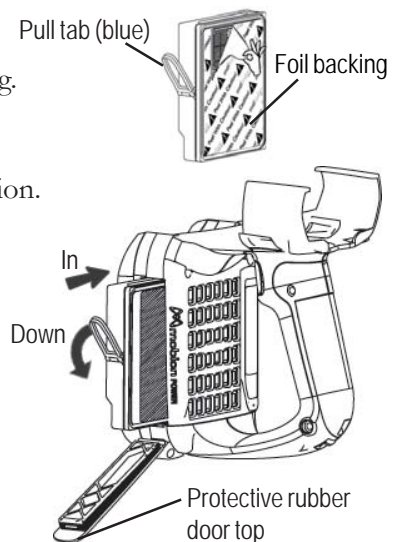
### Partially Used Cartridges

- The fuel cell system automatically turns off when the battery is charged, therefore it is recommended that the fuel cartridge be left in the system until empty.
- In the event the handle will be shipped, please remove the cartridge and store in a well ventilated area for 24 hours prior to disposal.



## Inserting a new cartridge

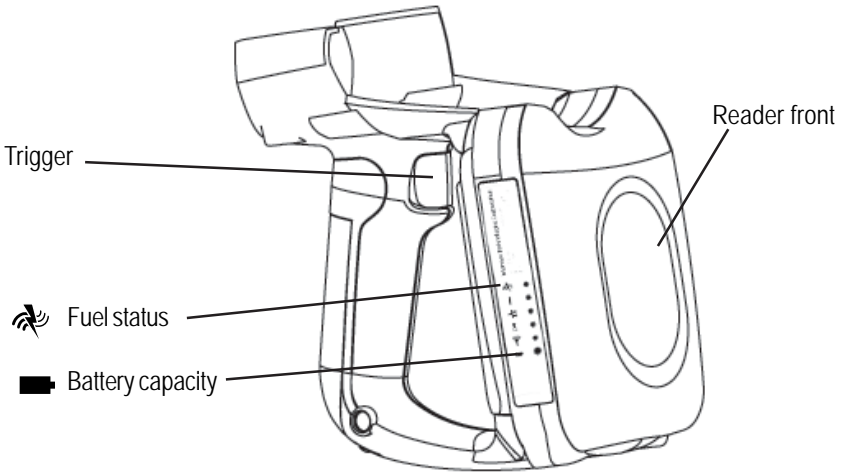
1. Remove the cartridge from vacuum bag.
2. Carefully peel off foil backing.
3. Slide into IP3 handle. Push to secure.
4. Move pull tab (blue) to the down position.
5. Close protective rubber door.
6. Handle is now ready for operation.



*Note: It is recommended that the cartridge be left in the handle for prolonged storage. Please remove cartridge for shipping.*



# Using the Portable Reader

1. Charge the battery for four hours and insert a new fuel cartridge before using for the first time.
2. Squeeze trigger on Reader to check capacity of battery (  ) and fuel status (  ). LEDs will indicate when it is time to replace the battery and fuel cartridge (see below).
3. Aim the Reader front at the ID Tag and squeeze the trigger. To obtain a good first time read, you need to be within three feet of the ID Tag.



LED	Indicates	Meaning
1 	Fuel Status	Cartridge fuel level: RED - Replace fuel cartridge
6 	BATT	Battery condition: RED - Low GREEN - Full ORANGE - More than 20% but less than 80%



# 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.

## *915MHz 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	-4°F to +131°F (-20°C to +55°C)
Non-Operating	-40°F to +158°F (-40°C to +70°C)
Humidity	Spec Detail
Operating	0-95% Relative, Non-Condensing

## Overall Performance

Dispatch Rates	Spec Detail
Average Electrical Output (Fuel Cell)	800mW
RFID tag identification rate	At least six tags per second with one to ten tags per field, located at half the maximum read distance from Reader front panel.
RFID tag read distance	36 inches
RFID tag data exchange rates	Read a tag containing 8 bytes of data within 50mS. Perform a verified write to tag at an average rate of 75mS per byte per tag

## Regulatory

Safety and Regulatory Approvals	Spec Detail
Reader	UL and CSA Listed Device. CB Report for international product safety FCC OET Bulletin 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields, for general population uncontrolled exposure. AS/NZS 2772.1(INT): 1998 Radio Frequency Fields-Part1: Maximum exposure levels-3kHz to 300 GHz, for non aware users. Part 15 of the FCC Rules and with Industry Canada Rules. AN/NZS 4268:2003 Radio Equipment and Systems - Short Range Devices - Limits and Methods of Measurement.
Electromagnetic Compatibility	Spec Detail
Reader	FCC Part 15/Industry Canada ICES-003/CISPR Class B digital emissions

## *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	Responsible Party	Control Mechanism
Change Country Code	Factory or Intermec Field Technician	Hardware or key 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 merchant ability and fitness for a particular purpose.

## Web Support

Visit the Intermec website 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 knowledgebase (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
Factory Repair and On-site Repair	Request a return authorization number for authorized service center repair, or request an on-site repair technician.	1
Technical Support	Get technical support on your Intermec product.	2
Service Contract Status	Inquire about an existing contract, renew a contract, or ask invoicing questions.	3
Schedule Site Surveys or Installations	Schedule a site survey, or request a product or system installation.	4
Ordering Products	Talk to sales administration, place an order, or check the status of your order.	5

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

# Safety Precautions and Warnings



Warning

During operation, it is normal for the fuel cell power source to be warm to the touch.

If the handle is **uncomfortably hot** to touch:

1. Stop use.
2. Remove fuel cartridge.
3. Call your authorized repair center for service.



Warning

- Flammable! Keep away from fire or flame.
- Keep out of reach of children.
- DO NOT consume contents.
- CONTAINS TOXIC MATERIAL. If swallowed or ingested, contact a physician immediately.
- This product contains Methanol, which is an eye, skin, and respiratory tract irritant. Methanol may cause blindness or death if swallowed. If methanol is exposed, contain and dispose of methanol. Use in well ventilated areas, read and understand all instructions before use.



Caution

- DO NOT expose to heat above 120°F (49°C) or prolonged sunlight.
- DO NOT puncture or subject to flame.
- Follow all instructions and warnings provided by manufacturer when using this device.
- Inspect the fuel cartridge before installing it for any signs of damage. If signs of damage are present, DO NOT use the fuel cartridge. Contact manufacturer to obtain information for safely returning the damaged cartridge.
- DO NOT attempt to repair fuel cartridge. Call your authorized repair center for service.
- Only FR1W fuel cartridge should be used in the fuel cell power system. Use of other fuel cartridge systems is not recommended.
- DO NOT obstruct air intake.
- This portable fuel cell power system uses oxygen from the area in which it is being used. It should not be used in a confined space or unusually tight construction unless provisions are provided for adequate process and ventilation air.
- It is recommended that the cartridge be left in the handle for prolonged storage. Please remove cartridge for shipping.
- After fuel in cartridge is consumed, dispose of cartridge as indicated on page 7.
- This unit is intended for occasional outdoor use. Do not store outdoors.





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IP3 Intellitag Portable Reader with Fuel Cell Quick Start Guide



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