PinPoint 721 Tag and PinPoint Tag Programmer

User Guide

User Guide
P/N: 3000-11620-001
Released: 02/26/04

Contents

Compliance Statement (Part 15.19)

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. 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 ID: OGK30013500001
IC Part # - TAG - 1001 - 05
Industry Canada ID CAN xxxxxxxxxxxxxxx

Warning (Part 15.21)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure (OET Bulletin 65)

To comply with FCC RF exposure requirements for mobile transmitting devices, this transmitter should only be used or installed at locations where there is at least 20cm separation distance between the antenna and all persons.

Industry Canada Statement

The term "IC" before the certification/registration number only signifies that the Industry Canada technical specifications were met.

NOTES:

Important Information

It is important for your facility to implement and enforce the following guidelines in order to keep all equipment functioning properly.

Installation and Configuration

It is the responsibility of the **facility** to use the supplies specified by RF Technologies for all (PinPoint®) installations.

Failure to use the supplies specified by PinPoint may result in equipment failure.

User Training

It is the responsibility of the **facility** to implement structured training procedures for all employees using the system. Only users who have received adequate training on the use of the system should use the system.

Failure to adequately train employees may cause equipment failure due to user error. In addition, incorrect use of the equipment may also result in equipment failure.

System Maintenance

It is the responsibility of the **facility** to establish and facilitate a regular maintenance schedule of your (PinPoint®) system. This includes regular inspection, testing, and cleaning.

Failure to provide regular maintenance to these products may result in equipment failure.

WARNINGS

The 721 Tags are water and shock resistant; however, immersion, high-pressure washing, or extreme force can damage the 721 tags.

The 721 Tag may absorb radio signals in the immediate area of the Tag. This can hinder Tag performance.

Preface

This guide provides detailed information about the PinPoint 721 Tag and the PinPoint Tag Programmer. It provides detailed instructions about using the 721 Tags and Tag Programmer as well as specific requirements.

The PinPoint System is a Real-Time Location System (RTLS). It uses high frequency radio signals from cell controllers to locate and follow the movement of the 721 tags, which are attached to assets. Tagged items can include hospital equipment, many varieties of containers, and a wide array of devices and other mobile resources that require protection, tracking, or location. From here, the data is sent to client applications and stored in a database.

About this Guide

The PinPoint 721 Tag and PinPoint Tag Programmer User Guide is intended for users who fasten, clean, and care for 721 Tags. It includes detailed information about the 721 Tags and using the PinPoint Tag Programmer to program them.

Additional Documentation

Documentation for the PinPoint System is available in Portable Document Format (PDF) on the PinPoint System. The PinPoint System Documentation includes the following guides:

PinPoint Information Center User Guide
PinPoint Web Forms User Guide
PinPoint Notifications User Guide

Contact Information

For more information about PinPoint Systems go to www.PinPointCo.com. For technical support, contact (800) 669-9946. For questions or comments about PinPoint System documentation, contact the PinPoint Technical Publications team at techpubs@rft.com.

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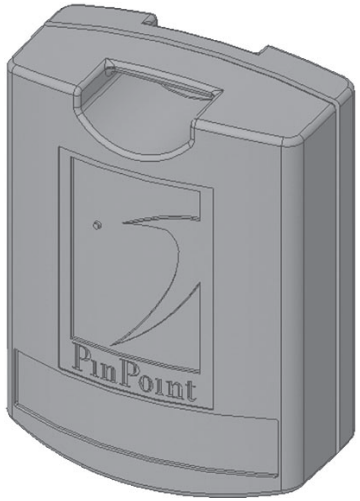
Overview

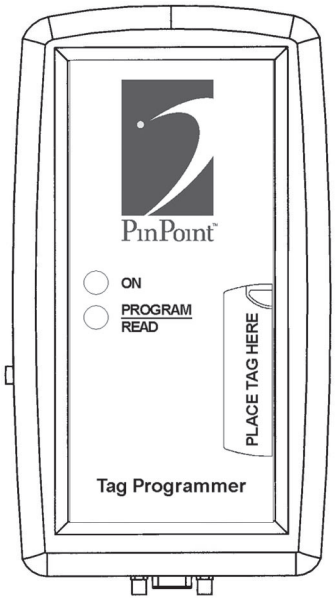
The 721 Tag is designed for use in PinPoint RTLS system. It can be used in applications involving the tracking and monitoring of industrial, construction, and hospital equipment in order to improve equipment utilization by providing real-time location information staff can quickly find the equipment when needed. In addition, it provides an historical record of the equipments' movement histories, allowing for analysis and possible restructuring of internal processes.



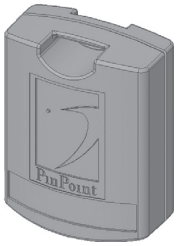
721 Tag

Using the PinPoint Tag Programmer

When you initially receive the PinPoint 721 Tags, it is necessary to program them before use. To do this, use the PinPoint Tag Programmer software. This reads and programs the 721 Tags and enables them to work with your system. Before you can activate the tags, you must configure the PTP unit to connect to the Comm Port on your computer and install the PTP software on your computer. Use the following steps.



PTP Unit



721 Tag

To install the PTP software on the computer

1 Insert the CD-ROM into the CD-ROM Drive.

2 Follow the steps on the screen to install the PinPoint Tag Programmer software.

721 Tag Specifications

Frequency	Rx: 2442 MHz Tx: 5800 MHz
Size	1.854" x 1.382" x .675"
Color	Blue
Weight	27 grams
Operating Temperature	-30°C to +65°C (-22°F to +149°F)
Composition	Valox 357U
Battery Life	Typical battery life 5 years (dependent on chirp rate)
Regulations	FCC Part 15 Compliant, Industry Canada Compliant
Part Number	1001-05

PTP Specifications

Enclosure Dimensions	4.94" x 2.75" x .94"
Battery Powered	9V Battery Operation
Controls	On/Off Switch
LED	Red - Indicates Power and flashes on errors Green - Flashes during wake-up, remains solid during programming functions.
Serial Interface	9 Pin RS-232 Interface Connection
Frequency	250KHz Transmit/Receive

Cleaning and Caring for a 721 Tag

This section provides detailed information about cleaning and caring for a 721 Tag. If you want to use a cleaner other than, Isopropyl Alcohol, please contact RF Technologies at (800) 669-9946,

To clean a 721 Tag after use

1 Remove the 721 Tag from the asset.

2 Wet a cotton swab or paper towel with Isopropyl Alcohol.

4 Cleanse the 721 Tag.

5 Cleanse the surface of the asset.

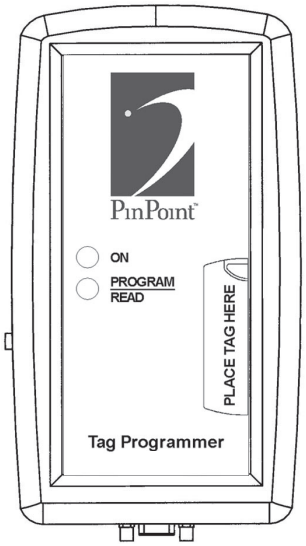
5 Let the 721 Tag and the asset surface dry before reapplying another 721 Tag.

> Use of non-approved cleaners on 721 Tags may cause permanent damage to the Tag and will void any and all warranties.

To program a 721 Tag

NOTE: If you receive a "check sum" error when attempting to read or program a tag, verify that the PTP is at least three feet away from a laptop or computer monitor.

1 Place the PTP at least three feet away from a computer monitor or laptop.



2 Place the 721 Tag on the PTP where it says "**Place Tag Here**."

3 Open the PTP Software.

4 Select **File >> Properties** to verify that the correct Comm Port is selected.

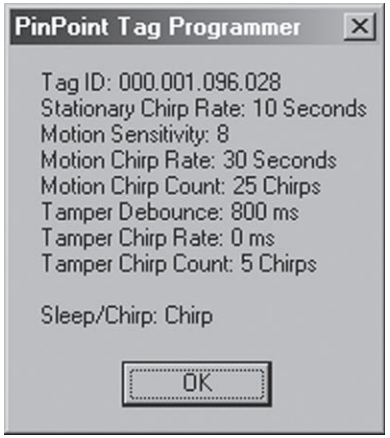
5 Click **OK**.

5 Do one of the following steps:

a. Enter the Tag ID of the tag you want to program in the Tag ID field, and click **Read**.

b. If you do not know the Tag ID, click **Read**.

Once the PTP has successfully read the 721 Tag, a dialog box appears displaying all of the Tag's current settings and the Tag ID appears in the Tag ID field in the PTP software.



7 Click **OK**.

8 If necessary, change the settings in the PinPoint Tag Programmer window.

9 Click **Program**.

10 Once the 721 Tag is successfully reprogrammed, a message appears in the message box indicating "Programming Complete!"

See the table on the following page for a description of the PTP Programming options.

Function	Description
Tag ID	Displays the Tag ID.
Stationary Chirp Rate	The chirp rate in effect when the asset is stationary.
Deep Sleep Mode	For use only when 721 Tags are to be stored or shipped. Used to prolong battery life.
Motion Sensitivity	Identifies how much motion is required to set the sensor.
Motion Chirp Rate	The chirp rate in effect when the asset is moving.
Motion Chirp Count	Number of times the 721 Tag transmits the motion chirp rate before returning to stationary rate.
Tamper Debounce (ms)	Configures whether the tag tamper detection is set. The debounce setting determines the amount of time the 721 Tag waits before triggering the Tamper alarm.
Tamper Chirp Rate	The chirp rate in effect when the asset reports a tamper.
Tamper Chirp Count	Number of times the 721 Tag transmits the tamper chirp rate before returning to normal operation mode.

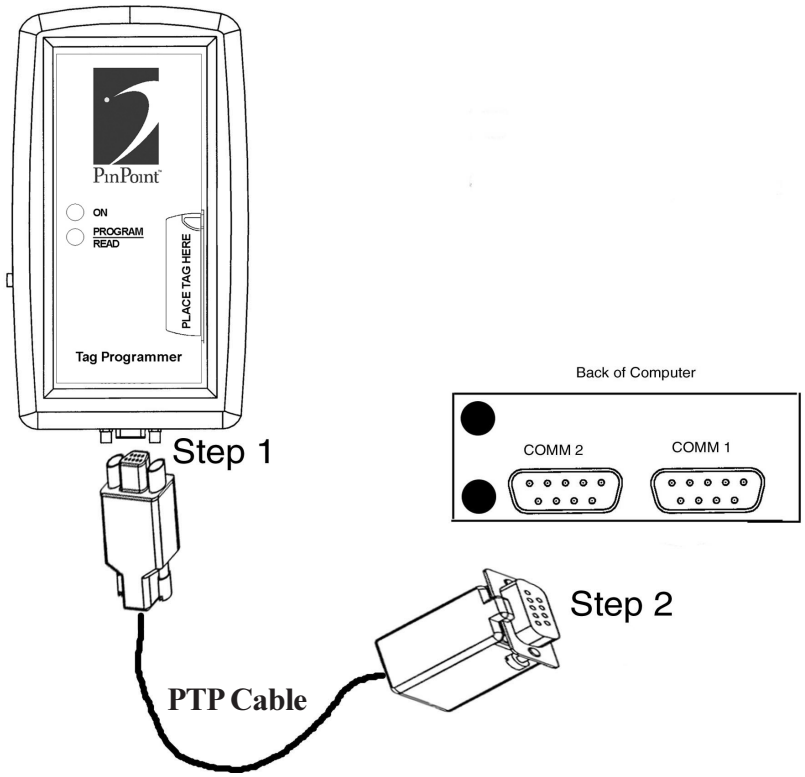
To configure the Pinpoint Tag Programmer

1 Plug the female adapter into the jack on the bottom of the PinPoint Tag Programmer.

2 Plug the additional 9-pin male adapter into an available Comm Port on the back of your computer.

3 Verify that the Red ON LED is flashing to indicate power.

4 Note the Comm Port to which you connected the additional 9-pin male adapter.



5 On your computer, click **Start >> Programs >> Tag Programmer** to access the PTP Software.

6 Select **File >> Properties**.

The Properties Dialog box appears.

7 In the **Communications Port** drop-down list, select the Comm Port number that you noted above.

8 Click **OK**.

Testing a 721 Tag

After you have applied the 721 Tag to an asset, it is important to test the tag for proper functionality.

To test a 721 Tag

1 Enter the 721 Tag into the PinPoint System.

2 Position the 721 Tag within the line of sight of a PinPoint Antenna.

3 Verify that the 721 Tag is read by the system.

For more information about entering a 721 Tag into the PinPoint System, see the *PinPoint Mobile Resource Manager Software User Guide.*

Troubleshooting

Issue	Reason	Solution
Tag is not transmitting	The tag is still in sleep mode. The Battery is dead.	You must read it with the PTP. Contact RF Technologies, Inc. at (800) 669-9946.
Tag is falling off of the resource	Surface was not cleaned appropriately for the adhesive pad.	Remove the adhesive pad, and clean thoroughly with isopropyl alcohol.

Replacing a Battery in the PTP

In some cases, it is necessary to replace the 9-volt battery in the PinPoint Tag Programmer. Use the following steps.

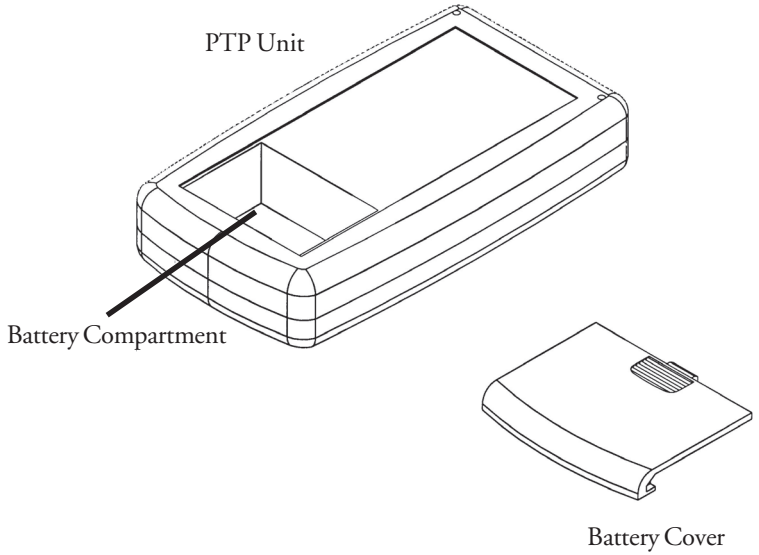
To replace the battery

1 Disconnect the PTP Unit from the PTP Cable.

2 Remove the battery cover from the PTP unit.

3 Remove the 9-volt battery.

4 Replace new 9-volt battery according to directions on the inside of the battery compartment.



Applying a 721 Tag

The 721 Tag can be attached using an adhesive pad that can be purchased with the 721 tag. The following section provides detailed steps about applying the 721 Tag using the adhesive.

NOTE: Depending on the policies of your facility, you may also use other means of attaching a 721 Tag to your assets. For example, a loop mount zip tie.

To apply the adhesive pad to the 721 Tag

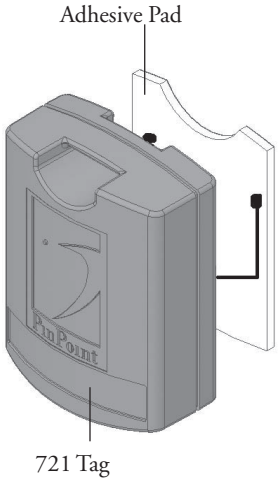
1 Remove an adhesive pad from the strip of paper.

2 Turn the 721 Tag onto its front.

3 Line the adhesive pad up with the back of the 721 Tag.

4 Apply the adhesive pad.

5 Verify that the pad is applied correctly and is not hanging over the sides of the 721 Tag.



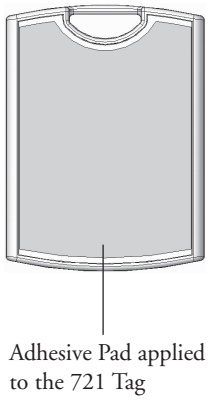
To attach a 721 Tag to an Asset using an adhesive pad

1 Obtain the asset to which you want to apply the 721 Tag.

2 Remove the adhesive plastic guard.

3 Firmly attach the 721 Tag to the asset.

4 Press firmly on the 721 Tag to verify that it adhered to the asset.



Removing a 721 Tag

The 721 Tag is applied using an adhesive pad. The following section provides detailed steps about removing the 721 Tags that were applied to assets.

To remove a 721 Tag

1 Firmly grab the 721 Tag and move it in a twisting motion.

2 Continue this motion until the 721 Tag peels from the asset.

3 Clean the asset surface with Isopropyl Alcohol.

NOTE: Depending on the policies of your facility, you may also use other means of removing a 721 Tag from an asset.