DTRAM READER MANUAL

Universal Wireless
Radio-Frequency
Identification (RFID)
Reader



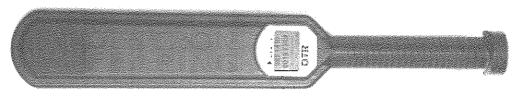


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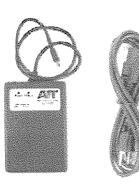
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I. Components

The DTR4 Reader Kit (RE6027) consists of the following components.



DTR-4 Reader (RE6026)





Battery Pack (AC7034)

Charger and Power Cord (AC7033)

- Serial Cable (AC7047)
- Test Tag
- •DTR4 Reader Manual

The following accessories are also available:

- •DTR Holster (AC7049)
- •USB-to-Serial Adaptor (AC7036)

To order accessories and for kit information, please contact Destron Fearing at 1-800-328-0118.

II. Getting Started

Reader features

- Can read up to 16,000 tags on a single battery charge
- Wired (RS232 serial) or wireless (Bluetooth') operation
- Two Opertaing modes Standard and Sort
- Capable of storing 2,047 RFID tags (Standard Mode)
- Capable of verifying 3000 preloaded Tags (Sort Mode)
- Configurable with utility or communications program
- Continuous scan mode and vibrating handle

Battery information

Туре

The battery in the kit is custom designed for the reader. The use of other commercial batteries WILL NOT activate the reader and could cause permanent damage.

Installation

To install the battery, remove the thumb screw and slide open the door on the end of the reader handle. After inserting the battery, close the door and tighten the thumb screw.

important: Only one end of the battery is designed to enter the chamber. If battery does not fit easily, turn it over and re-insert. Forcing the incorrect end of the battery into the chamber could damage the components.

Use caution when handling the battery. Dropping the battery, carrying it improperly or subjecting it to harsh condi-

Charging

The battery should be fully charged before the first use and should only be charged with the supplied charger. The battery may be charged either within or outside the battery chamber. When leaving the battery within the battery chamber, loosen the battery door thumbscrew one turn and then slide the cover to expose the charging receptacle.

- 1) Plug the charger into a standard AC outlet.
- 2) Plug the charger cord into the battery receptacle.

The charger will automatically disconnect power to the reader. The reader cannot be used while the battery is charging.

3) Periodically monitor the progress.

The *Status* light on the charger indicates the state of the battery.

- •Yellow = the battery is charging.
- Green = the battery is fully charged.

The battery should fully charge in about two hours. It is not possible to overcharge the battery.

4) When the battery is charged, remove the charger and close the battery door.

The reader is now ready for operation.

III. Operation

Activate the reader

Push the red activation switch on the bottom of the reader to turn power on (allow five seconds for startup to complete). The word READY will be shown in the display on the top of the reader. The display will remain on while the reader is active.

The reader will stay on for 60 minutes after the last tag has been scanned. During this time the reader is in standby mode and will have little impact on battery life. If you are using a wireless (Bluetooth) connection, the reader will remain connected to the host computer during this time.

Reader Modes

The DTR4 has two modes, Standard and Sort. Standard Mode is the normal operating software for real time scaning of EID tags. Standard Mode is used with Infodex M, DF Direct, DF Downloader and other user applications. Sort Mode can only be used with the Sort Mode software. It uses a seperate Memory location which is only accessable though Sort Mode software included with reader. See page 21 Note:

The Modes have different memory locations, Tag information stored in one will not be lost when swtiching between Modes. If other software is used the while in Sort mode the tag information may be tags previously read in Standard Mode.

Display Icons

Bluetooth icon. If flashing, the reader is searching for a wireless connection. If steady, the reader has a wireless connection.

M: Indicates master mode

S: Indicates secondary mode

P: Pen count Resting power resets the count

: Battery level indicator..

Displayed in (Standard Mode only)

MEM:0000 Number of tags in memory. If memory is more than 90% full, will flash and show the percentage full.

Displayed in (Sort Mode only)

0000-0000 / SORT MODE:

0000 Number of tags in SORT LIST

-0000 Number of tags read not in SORT LIST.

Reading tags

Press the activation switch and hold it until the tag has been successfully scanned. You must pass the reader within 10 inches of the ID tag.

Reader Operation in Standard Mode

If a tag is successfully read and saved and more than 10% of memory is still available:

- The tag number is shown in the display
- If reading a biothermal tag the temperature is shown
- The reader will beep once and vibrate.

If a tag is successfully read and saved but memory is low (less than 10% of memory still available):

- The tag number is shown in the display
- If reading a biothermal tag the temperature is shown
- The memory percentage is displayed
- The reader will beep two times
- The reader will vibrate

If a tag is successfully read but memory is full:

- The tag number is shown in the display
- If reading a biothermal tag the temperature is shown
- MEM FULL is displayed
- The reader will beep six times
- The reader will vibrate multiple times

Reader Operation in Sort Mode

When in Sort Mode the reader will look for the tag numbers in the preloaded Sort File.

If a tag is successfully read and is in the Sort File:

- The reader will beep and vibrate once.
- The tag number is shown on the display.
- If a biothermal tag is read, no temperature is shown

If a tag is successfully read and is not in the Sort File: The reader will:

- The reader will beep and Vibrate 4 times.
- The reader Display Backlight will Flash 4 times.
- The Display will show

"TAGID"

"NOT N LIST"

• The reader will then show the

"tag ID"

"NOT IN LIST"

IV. Installing Sort Mode

Sort Mode is an utility that enables you to:

- Place the DTR4 in Sort Mode Via Bluetooth.
- Download Tag lists to the DTR4 to confirm the correct animals are read.
- Export the list of read and non read tags with status.

Requirements

- Windows XP, Windows Vista, Windows 7
- .NET Framework 2.0 or later (automatically installed for you during the utility installation process)
- Bluetooth connectivity

Installation

- 1) Insert the Included CD into the CD drive.

 If the *Welcome* dialog should automatically appear. Exit and go to the cd directly.
- 2) Create a Sort Mode folder.

Copy DTR4 Sort Mode into the Sort Mode folder.

Run the Sort Mode by clicking on the DTR4 Sort Mode. Sort Mode will open.

Close Sort Mode

Verify the TAG IMPORT and TAG EXPORT folders were created in the Sort Mode directory.

Sort Mode is now installed and ready to use

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V. Installing Infodex M

InfodexM is a utility that enables you to:

- Configure the reader
- Download tags from the reader to the utility
- Export tag IDs to your computer

Requirements

- Windows XP or Windows Vista
- .NET Framework 2.0 or later (automatically installed for you during the utility installation process)
- •RS-232 serial port or Bluetooth connectivity

Installation

- 1) Insert the InfodexM CD into the CD drive.

 The *Welcome* dialog should automatically appear. If not, simply double-click the *Setup.exe* file on the CD.
- 2) Click *Next*.

 The *Select Installation Folder* dialog is displayed.
- 3) If you accept the default folder and user values, click *Next*. Otherwise, modify the values and then click *Next*. The *Confirm Installation* dialog is displayed.
- 4) To begin the installation process, click Next.
- 5) When the *Installation Complete* dialog is displayed, click *Close*.

VI. Connecting To A Host

Serial cable connection Standard Mode only

- 1) Turn on the reader and then connect it to your data collection computer using the serial communication cable provided with the reader.
- 2) Configure the data collection software.
 - If using a communications program such as HyperTerminal, use the following RS232 settings:

Baud rate: 9600

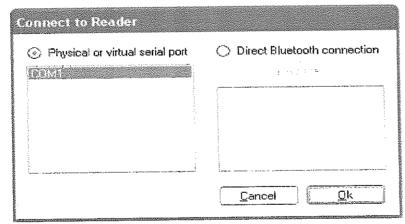
• Stop bits: 1

● Data bits: 8

• Flow Control: None

Parity: None

- If using InfodexM, start the utility by selecting *Start* > *All Programs* > *Destron Fearing* > *InfodexM*. The utility should auto-connect to the reader. If it doesn't:
 - a) Click Connect to Reader; the following is displayed:



b) Enable the *Physical or virtual serial port* option, select the desired port, and then click *OK*.

Bluetooth connection to a computer

Using InfodexM

- 1) Turn on the reader and wait for the flashing blue light. Verify that the reader is in secondary mode.
- 2) On your computer, start the utility by selecting Start > All Programs > Destron Fearing > InfodexM.
 A connection may be made automatically. If not, on the Connect to Reader dialog, click Setup.
- 3) Enable the Direct Bluetooth Connection option.
- 4) Click Discover.
- 5) Select your reader from the list of discovered devices and then click *OK*.

Using a Communications Program

- 1) Turn on the reader and wait for the flashing blue light.
- 2) Open the Bluetooth manager and intiate a communication session with the reader.
- 3) When prompted, type the passcode. The passcode is the last five digits of the wireless code found on the reader handle.
- 4) Wait for the flashing blue light to change to a steady blue light (indicating the connection is made).
- 5) On your computer, start your communications program and verify its configuration: 9600 baud, 8 data bits, no parity bits, 1 stop bit, no flow control.

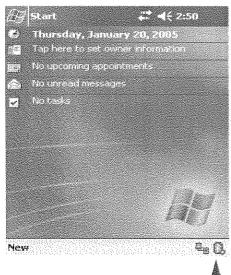
Bluetooth wireless connection to a PDA

There are many different ways to establish a Bluetooth connection. Please consult your device's user manual for directions on how to connect to the reader.

A sample PDA connection

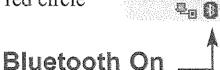
If you are using a Windows CE device (Pocket PC 2003), set up the device as follows:

- 1) Turn on Bluetooth functionality.
 - a) Turn on the PDA and allow a few seconds for the device to turn on the Bluetooth function. A Bluetooth icon should appear in the lower right hand corner of the screen. If a red circle with a white "x" appears next to the Bluetooth icon, then the Bluetooth device is sleeping and must be turned on.

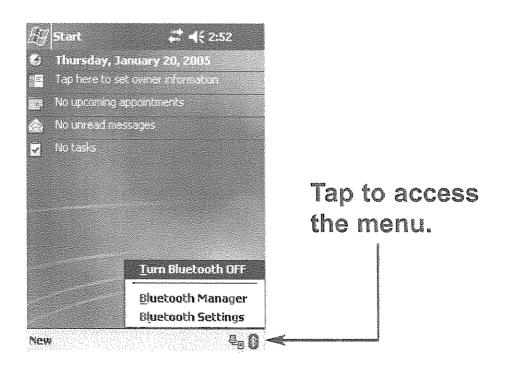


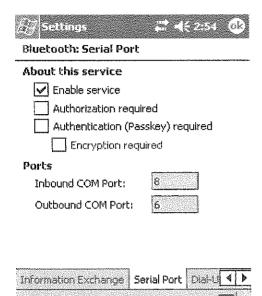
Bluetooth Off ___

b) To turn on the Bluetooth function, tap the Bluetooth icon located in the lower right corner of the PDA screen and then select *Turn Bluetooth ON*. This will turn on the wireless connection and the red circle "X" will disappear.

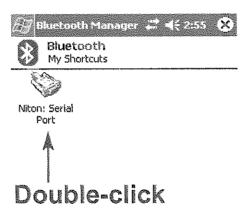


- 2) Configure the PDA serial port.
 - a) To verify the proper setup of the Bluetooth device, tap the Bluetooth icon again to display the menu. Select "Bluetooth Settings" to display the settings window.





- b) On the bottom of the *Settings* window, tap on the right arrow and scroll until the *Serial Port* tab appears.
- c) Select the *Serial Port* tab and verify that the *Enable service* check box is enabled. The other check boxes should not be checked. In the top right-hand corner of the screen click *OK*.
- 3) Enable the serial connection.
 - a) Turn on the DTR Reader.
 - b) On the PDA, tap the Bluetooth icon and select the *Bluetooth Manager* menu. This will display a list of all previously configured devices.
 - c) Double-click the serial port icon to enable the connection to the reader.





Note: If this is your first time in the Bluetooth Manager screen, you must get it to discover the reader.

- In the lower left corner tap New.
- Tap on *Connect* and then double-tap *Explore a* Bluetooth device.

Click inside the *No device selected* box. The *Bluetooth Browser* will appear while the PDA is searching for a device.

Important: The DTR Reader MUST BE ON when the browser is in a search mode.

• When the browser detects the reader, the *Serial Port* icon will appear on the PDA. Tap the reader icon to open the Bluetooth Connection Wizard.

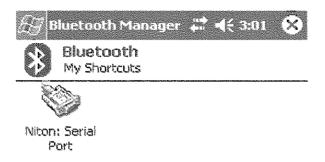


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- The available services will be displayed in the *Service Selection* box. Tap *Serial Port* and then in the lower right corner of the PDA tap *Next*.
- Tap Finish.



- 4) Pair the device.
 - a) Highlight the serial connection and then tap *Tools*. At the top of the screen tap *Add*. The *Bluetooth: Device* pairing dialog will appear.
 - b) Tap the *Search* icon and the device name will appear with identification numbers. In the *Passkey* window, type the last five digits of the device ID number and then tap *OK*.



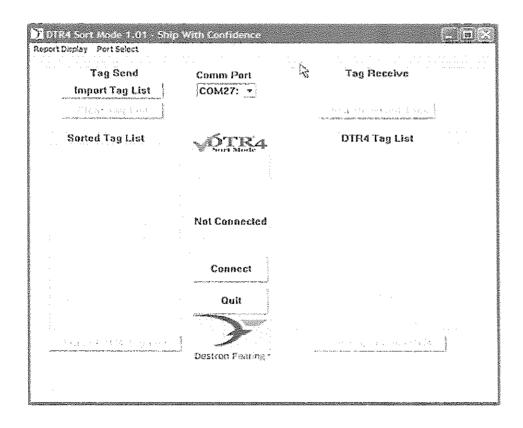


The wireless serial cable icon will remain available in the Bluetooth Manager for future use.

VII. Using Sort Mode

Sort Mode is used to:

- Change reader mode from Standard Mode to Sort Mode
- Import a Tag list to the DTR4. (see page 24)
- •Get Tags From DRT4 and check status of scanned tags against the Imported Tag list. (see page 26)
- Export a list of tags to a spreadsheet program with tag status infomation. (see page 27)



Items to be aware of while in Sort Mode.

- Sort Mode uses a seperate memory location than Standard Mode.
- Tags scanned in Sort Mode will not be stored in th standard mode memory.
- Tags read in Sort Mode are not available in Standard Mode or downloadable from Infodex M.
- Sort Mode will only download tags read, while the DTR4 was in Sort Mode.
- Tags read in Sort Mode can only be downloaded with a Bluetooth connection.
- Any tags stored in memory in Standard Mode will not be lost swiching to Sort Mode.
- Any tags stored in memory in Sort Mode will not be lost swiching to Standard Mode.

Starting Sort Mode

First step using Sort Mode is to connect via the Bluetooth connection.

Start Sort Mode

The program will attempt to connect to the reader, If successfull go to page 20

If the program says "Not Connected" in the midle of the screen. Click on the "Connect" Button. If the reader connects go to page 20

If the reader does not connect attempt the following.

- a) Verify the DTR4 is on and Bluetooth Icon is flashing. Click "Connect"
- b) Verfiy the Computer is linked to the DTR4 with Passkey enabled. Click "Connect"
- c) Verify Comm Port selection with the drop down Comm Port menu. Try all numbers that are available. Click "Connect"

For further assistance Refer to page 14 "Bluetooth connection to a computer"

Import Tag list to Sort Mode

To import a tag list to the DTR the file must be in either a standard EXCEL (XLS) format or Comma Delimited (CSV) format. The file should be placed in the TAG IMPORT Directory or a user created directory.

Creating a Tag List

The Tag information must be placed in a column with the Column Header named "RFID NUMBER" with no other dashes commas, etc. Only this column will be read by Sort Mode. The other Columns can be user assignable.

Get Tag numbers to Sort Mode

Under the Tag Send area, Click "Import Tag List" Select the file you want to download. It can be CSV or XLS

Tag Send Import Tag List

The tags will be displayed in Sorted Tag List.

Sorted Tag List 985120016401795 985120016404783

Sending a Tag List to the DTR

To send a Tag List Click on "Send Tags to DTR4"

Send Tags To DTR4

If successuful you will get "Tags Sent OK"

If unsuccessful go to page 24 and restart.

The reader is now loaded and ready to scan.

Creating your own Tag List.

A Tag List can also created with the DTR4

- 1) Verify the DTR4 is in Standard Mode.
- 2) Verify the Memory is empty, if not Erase DTR Memory.
- 3) Verify Mermory is on.
- 4) Scan the tags you want for the Sort List.
- 5) Use the DF Downloader utility to export data to an Excel file. DF Downloader was included on the CD that came with the reader.
- 6) Place the created Tag List file in the Tag Import folder.
- 7) This Tag List file can now be Imported using Sort Check. See Page 24

Download Tag List in Sort Mode

Get Tags From DTR4

When clicking "Get Tags from DTR4" The Tag List will be is displayed on screen and also Exported to an XLS file in the TAG EXPORT folder.

Tags displayed on screen will be sorted by their status;

1. Not Listed Tag Found but not in Sort List

2. Not Found Tag in Sort List but Not Found.

3. Found Tag Found in Sort List

The DTR4 Tag List will look like this.

DTR4 Tag List

985120016400549 - Not Listed

985120016405817 - Not Listed

985120016401798 - Not Listed

985120016404783 - Not Found

985120016401795 - Found

985120016404873 - Found

The EXCEL file in the TAG EXPORT Directory created will display the information as follows.

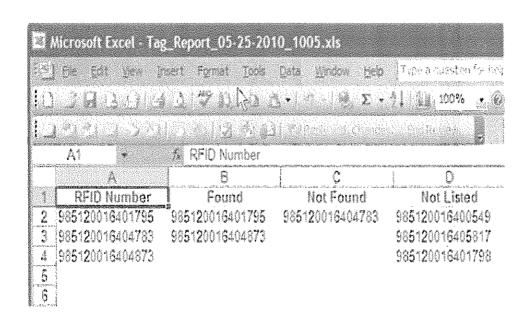
columun

A Tags downloaded to Sort Mode

B Listed and Found

C Listed but Not Found.

D Not Listed but Found



VIII. Using InfodexM

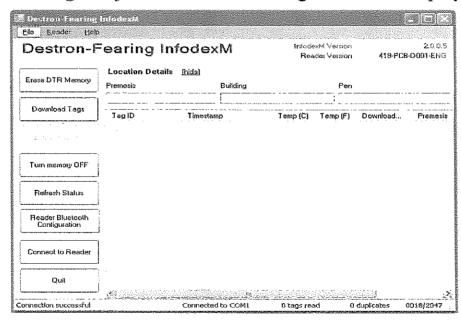
InfodexM is used to:

- Erase tags from the reader's memory
- Download tags from the reader's memory
- Export tags to a spreadsheet program
- Enable and disable the reader's memory
- Establish a serial or a Bluetooth connection with the reader
- Configure how the utility manages interactive scans and duplicate tags

Note: You can also use a communications program to perform these tasks. See page 24 for details.

Starting InfodexM

To start the utility you select *Start > All Programs > Destron Fearing > InfodexM*. The following window is displayed.



Managing interactive scans and duplicate tags

InfodexM enables you to specify how the utility should manage interactive scans and duplicate tags.

Note: The following two menu commands apply only to the utility. They do not apply to the reader.

• Reader > Ignore duplicates: If enabled, duplicate tags are ignored by the utility. Duplicate tags will continue to be accepted and stored in reader memory.

Tip: To see how the duplicates are ignored, enable both this option and *Reader > Include interactive scans*. When a duplicate tag is read the status message in the lower left corner of the utility will indicate it has been read but the tag ID will not be added to the utility's tag list.

• Reader > Include interactive scans: If enabled, scanned tags will be sent directly to the utility's tag list. This happens regardless of whether reader memory is enabled or disabled. If this option and reader memory are both enabled, the tags are sent to both the utility and to memory.

Note: The tags displayed within the utility are not saved unless they are exported to a .csv file using the *Export Tag List* button.

Erasing DTR memory

To erase all tags currently in the reader's memory, click *Erase DTR Memory*. Erasing tags from memory does not clear the list of tags currently stored within the utility.

Downloading tags from memory

To download all tags currently stored in the reader's memory, click *Download Tags*. A prompt is displayed asking if you want to clear the utility tag list before downloading the tags. Click *Yes* or *No*. The tags are then downloaded to the utility and displayed within the tag list. For example:

Tag ID	Timestamp	Temp (C)	Temp (F)	Download
900014000484990	06/23/2009 11:24:11	4 191		• •
900014000484992	06/23/2009 11:24:54			X
985152004256411	06/23/2009 11:24:54			X
900014000484991	06/23/2009 11:24:54			X

Information displayed about each downloaded tag includes:

- Tag ID: The 15 digit code that uniquely IDs each tag.
- Timestamp: The date and time that the tag was down loaded from memory.
- Temp (C) and Temp (F): Recorded temperature.
- Downloaded?: Either X or blank.

X = the tag was downloaded from memory Blank = the tag was scanned interactively (directly into the utility's tag list).

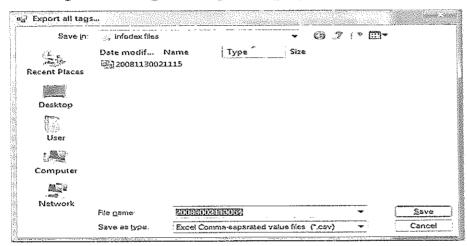
Note: Downloading tags from memory does not erase the tags from memory.

Exporting tags to your computer

Tags that have been downloaded to the utility can be exported and saved to a file on your computer. This enables you to use a spreadsheet program to evaluate your tag data. To export the tags:

1) Click Export Tag List or select File > Export Tag List.

The Export all tags dialog is displayed.



2) Specify a folder, a file name, and a file type, and then click *Save*.

There are two possible file types:

- Comma-separated value files: Readable by most popular spreadsheet programs but some cells may require formatting.
- Excel Comma-separated value files: Designed for use with Microsoft Excel.

Note: Exporting the tag list does not erase the tags from the utility tag list.

Enabling and disabling memory

The reader contains internal memory capable of storing up to 2047 RFID tags. You can enable and disable the use of the memory feature using the *Turn memory ON / Turn memory OFF* button. The name of the button changes depending on whether memory is currently enabled or disabled.

Note: The utility must be connected to the reader in order to enable or disable memory.

When memory is enabled

Tags scanned by the reader will be stored in the reader's memory. To access the tags you must download them using the *Download Tags* button.

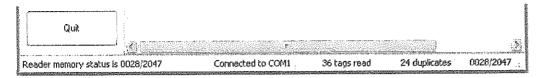
The reader provides audible and visual indicators to the operator when the memory is low or full. See page 6 for details.

When memory is disabled

Tags scanned by the reader will be sent directly to your computer via a serial or Bluetooth connection. If there are tags in memory when memory is disabled, those tags are saved, but no additional tags will be saved.

Viewing InfodexM statistics

The *Refresh Status* button is used to update the statistics displayed by the utility. The statistics are displayed in the status bar along the bottom of the utility. For example:



- Reader Status: The number of tags currently saved in memory. The memory can store 2,047 tags.
- Connection status: Indicates how the utility is connected to the reader.
- Tags read: The total number of tags read by the utility since it was started. This includes tags read directly to the utility using the *Include interactive scans* option as well as those tags downloaded from memory. Downloading the same tags from memory multiple times will increase the total value.
- Duplicates: The total number of duplicate tags identified by the utility.

In addition, version information is displayed in the upperright corner of the utility.

- InfodexM Version: The version of utility software.
- Reader Version: The version of software currently running on the reader.

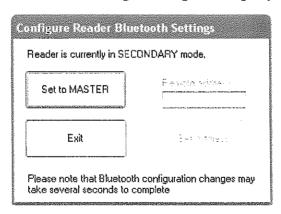
Reader Bluetooth Configuration

When using a Bluetooth (wireless) connection, the reader can be configured in one of two modes:

- Master mode: (Rarely used) Use if you want to transmit tags to a remote device (such as a scale) as the tags are read by the reader. You must specify the address of the remote device (see page 23).
- Secondary mode: (Commonly used) Use if downloading tags from the reader's memory to a collection computer.

To change reader Bluetooth modes:

1) Click *Reader Bluetooth Configuration*. The following dialog is displayed:

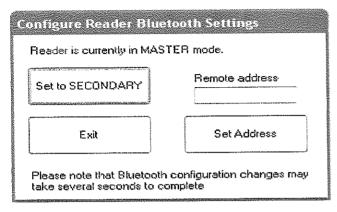


The current mode is displayed on the first line of the dialog.

- 2) Click *Set to MASTER* or *Set to SECONDARY*.

 The button name changes each time you toggle between Master and Secondary mode.
- 3) Click Exit.

When the reader is in Master mode, you must specify the address of the remote bluetooth device to which the reader will connect.



1) In the *Remote address* box, type the address of the secondary device.

The address consists of 12 hexadecimal characters.

- 2) Click Set Address.
- 3) Click Exit.

Using the location descriptor fields

The utility enables you to provide labels for three location descriptor fields. For example:

Premesis	Building	i i
DA7189547	Building B	Main Pen

The default labels for the three location fields are *Premises*, *Building*, and *Pen*, but you can modify these labels as needed. Simply highlight the label and type the new label.

If you type names into one or more of these location fields and then download tags, the location information is appended to each tag. If you want to download additional tags that were read from a different location, simply change the names of the location fields before downloading the additional tags.

If you export the tags to your computer, the location field information is automatically included with each tag.

Communications program commands

If you prefer, you can use a communications program (such as HyperTerminal) rather than the utility to manage the reader's memory and tags. The available commands are:

- Esc: Enter DTR Reader Console mode
- A: Specify address of remote Bluetooth device address (automatically sets the reader to master mode)
- B: Toggle between master and secondary mode
- D: Download tags
- E: Erase memory
- M: Enable/disable memory S: Display memory stats
- V: Display reader version # X: Exit console mode
- •?: Display help menu

Note: If you do try to use a communications program and are unable to enter any commands, try pressing Esc. You cannot enter commands unless you are in console mode. Press X to exit console mode.

Continuous Reading

The reader can be used as a continuous or a single reader..

Single read

Press Switch-until a Tag is read Release switch. Reader will display tag number and Store tag information.

Continuous Read

Press and hold switch. The reader will continue to read tags without releasing and pressing the switch again. The reader will store a scanned tag only once when continuously reading a tag, until a different tag is read. If the user then re reads a tag previously read it will store the tag informaion again.

Note: this assmumes the reader is in Standard mode and memroy is turned on..

Storage

Be careful that the power switch is not accidentally held in the "on" position during storage. If it is held on, the reader battery will deplete and need to be re-charged.

IX. Troubleshooting

PROBLEM: Reader display does not come on.

ACTIONS:

- The battery must be fully charged. Charge battery.
- Inspect and clean terminals on the battery if needed.
- Make sure battery is fully inserted and door is closed and sealed.

PROBLEM: Reader has reduced read range or is not reading the tags.

ACTION: The battery may be getting low. Recharge the battery.

IMPORTANT: Metal objects, computer monitors, video screens, or other readers or microchip tags within 18" of the scanning area may distort the read range.

- Check your pockets and the surrounding area for misplaced tags and metal objects.
- If using a laptop computer, make sure it is properly grounded, using a three-prong plug.
- To see if the host device is the problem, disconnect the reader and scan the test tag.

PROBLEM: Host device will not accept data.

ACTION: (1) Check cable connections to reader and the host device. (2) Verify communications setup on host.

PROBLEM: Unable to make a serial port connection to the reader using the InfodexM utility.

ACTION: The COM port may be busy, possibly due to an existing serial port connection. Check to see if you have an existing serial port connection using a communications program such as HyperTerminal.

PROBLEM: Untested Firmware Version message is displayed when making a connection between InfodexM and a reader.

ACTION: In most cases you can simply ignore this message. There are many different versions of reader firmware available, and most should work with InfodexM. If you do experience problems with InfodexM, you may need to upgrade the firmware installed in your reader.

PROBLEM: Unable to enter commands or receive tag information when using a communications program.

ACTION: Verify that you are in console mode. Press Esc to enter console mode, and X to exit console mode.

PROBLEM: Reader's display stays on continuously for more than one hour.

ACTION: Remove the battery and replace or reinstall. Then, re-test the system. If the problem continues, disconnect the reader from the host device and test. If the reader now works properly, verify the settings on the host device.

X. Proper Use

Proper Use and Care

While the reader is designed to perform in harsh conditions, it IS NOT to be used as an animal paddle, tool, or as an instrument for anything other than scanning animal RFID tags. Use of the reader for non-scanning functions could permanently damage the components and replacement/repair WILL NOT be covered under the warranty.

Clean the reader when needed with either soap and water or with a mild cleaning solution. DO NOT immerse the reader in water or clean with strong chemical solutions.

XI. Specifications

Weight (with batteries)	1.6 lbs.	
Length/width	19.5 inches / Length 3 inches / Width	
Batteries (custom pack provided)	2.5 hour fast charge 6VDC 2100mA capacity Battery Life – 500 charge/discharge cycles	
Charger/Adapter	110/240 volt compatible	
Storage Temperature	-25 to 45 degrees C	
Operating Temperature	-25 to 45 degrees C	
Operating Frequency	134.2 kHz/125 kHz	
Read Range	8 - 12 inches	

Supported Reading Technologies

- •FDXA •FDXB
- HDX FDXB Biothermal
- AVID Trovan

XII. Warranty

Warranty Information

The Reader is warranted against defects in materials and workmanship, under normal use and service for One (1) year from date of purchase. This warranty will not apply if adjustments, repair, or parts replacement is required because of accident, neglect, damage during transportation, or by causes other than ordinary use.

Destron Fearing's sole responsibility under this warranty shall be, at its option, to either repair or replace any product which fails during the warranty period. In no event shall Destron Fearing be liable for any indirect or consequential damages or loss of profit.

X. FCC Statement

Destron Fearing

South St. Paul, MN 55075-2443

Phone: 1-800-328-0118

FCC ID: WMQ80080004

Industry Canada Registration ID

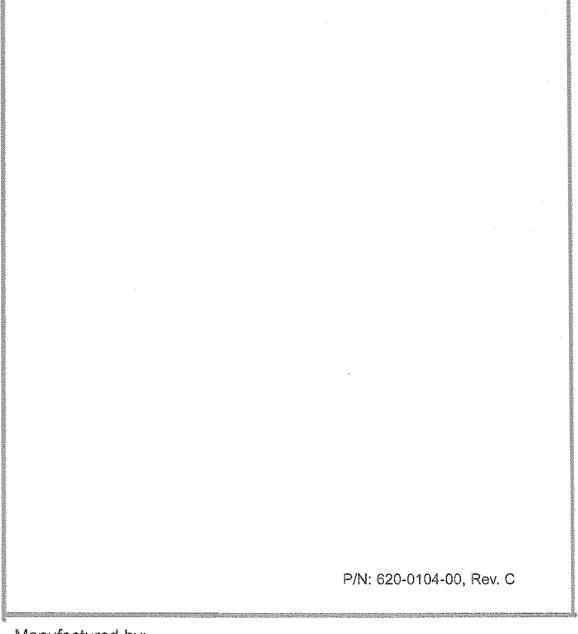
IC: 4284A-8008004

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received including interference that may cause undesired operation.

Caution to the user:

Any changes or modifications to the reader other than specified by this manual or Destron Fearing could void the user's authority to operate the reader.



Manufactured by: Destron Fearing 490 Villaume Avenue, South St. Paul, MN 55075

Customer service: 1-800-328-0118 Website: www.destronfearing.com

