Welcome to RF-6800 USB to Radio Data Adapter (URDA)

The USB to Radio Data Adapter is a single data device which allows data transmission from the PC to a Harris Radio. The URDA allows both asynchronous and synchronous data transmission with Harris software application, such as TacChatIP, Wireless Message Terminal and HUITS, and is compatible with Harris radios.

Features and Requirements Overview

The RF-6800 URDA offers the following features:

- Ability to fill radio using the Radio Programming Application.
- Ability to transmit ASCII remote control data.
- Ability to transmit messages using the RF-6760W WMT using the STANAG 4538 (3G ALE) protocol.
- Ability to transmit messages using the RF-6760W WMT using the STANAG 5066 (2G ALE) protocol.
- Ability to transmit messages using the RF-6760W-HPW WMT.
- Ability to transmit images using the RF-3700H HUITS application.
- Ability to transmit text messages using the RF-6705 Tactical Chat IP application.
- Replacement for the RF-6760W WMT and RF-3700H HUITS PCMCIA and PCI synchronous adapters.

The RF-6800 series URDA is compatible for use on customer-supplied or Harris-supplied PCs.

Hardware and Software Compatibility

RF-6800 URDA SELECTION AND CAPABILITIES

URDA Product	Radio Support	Data Transmission Support	Cable Replacement
RF-6800-AD027	AN/PRC-150C	RF-6705 Tac Chat IP, RF-6760W WMT S-4538 (3G) and 1052A, RF-6550H RPA	10535-0775
		RF-6760W WMT S-5066 (2G), RF-3700H HUITS	10518-1694 10535-0780
	MPR-9600	RF-6705 Tac Chat IP, RF-6760W WMT 1052A, RF-6550H RPA	10535-0775 10518-1694
		RF-6760W WMT S-5066 (2G), RF-3700H HUITS	10518-1694 10535-0780
	RF-5800H-MP	RF-6705 Tac Chat IP, RF-6760W WMT S-	10535-0775

URDA Product	Radio Support	Data Transmission Support	Cable Replacement
		4538 (3G) and 1052A, RF-6550H RPA	10518-1694
		RF-6760W WMT S-5066 (2G), RF-3700H HUITS	10518-1694 10535-0780
RF-6800-AD127	AN/PRC-117F	RF-6760W WMT HPW SATCOM, HPW LOS, RF-6705 Tac Chat IP, RF-6550M RPA	10513-0710 10513-0730
		RF-6760W WMT S-5066, RF-3700H HUITS	10513-0780 10513-0730
		ASCII Remote Control	10513-0730
	RF-5800M-MP	RF-6550V RPA	10512-0775
		RF-6760W WMTS-5066 (2G)	10535-0780
	RF-5800V-MP	RF-6760W WMT S-5066 (2G), RF-3700H HUITS	10535-0780 10512-1695
		RF-6550V RPA, RF-6705 TacChatIP	10512-0775 10512-1695
RF-6800-AD018	RF-5800V-HH, RF-5800M-HH	RF-6760W WMT S-5066 (2G), RF-3700H HUITS	12011-0210
		RF-6550V RPA	12011-0200
		RF-6705 TacChatIP	12011-0775
RF-6800-AD032	AN/PRC-152, VRC-110	RF-6760W WMT HPW SATCOM	12041-7180
		RF-6550M RPA	12041-7220
		RF-6760W S-5066 (2G), ASCII Remote Control	12041-7110

Radio Application Compatibility

RF-6800 is compatible with the following Microsoft Operating Systems and other applications:

Operating Systems

- Windows 2000 Professional SP4 (English)
- Windows 2000 Server SP4 (English)
- Windows 2003 Server (English) Standard Edition, SP1, SP2 32-bit and 64-bit
- Windows XP Professional Edition SP2, SP3 (English) 32-bit and 64-bit
- Windows Vista Business Edition, SP1 32-bit & 64-bit
- Windows Server 2008 SP1 (English) 32-bit, 64-bit

NOTE

In the Radio Compatibility tables that follow, if the "Sync Card Reqd" column is marked "YES" the "E-mail Messaging Mode" in that row is NOT supported for this release of the USB Radio Data Adapter. The indicated messaging modes require a synchronous data interface that will be available in a subsequent release of the adapters.

PRC-152 Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following PRC-152 firmware versions:

Hardware/Firmware Version
V5.2

Capability

The RF-6550M, Falcon III Radio Programming application, v2.6, supports programming of the PRC-152 through the RF-6800-AD032 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	Max Data Rate (bps)	Encryption	Radio Modes Supported	Data Method
HPW in Radio	56000	KG-84C	HPW - SATCOM - 25 kHz	Asynchronous
HPW in Radio	8500	KG-84C	HPW - SATCOM - 5 kHz	Asynchronous
5066 in PC	64000	Clear, KG-84C	TCM	Synchronous
5066 in PC	16000	Clear, VINSON	FM	Synchronous
5066 in PC	16000	VINSON	SINCGARS FH	Synchronous

MPR-9600 Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following MPR-9600 firmware versions:

Hardware/Firmware Version
V1.5.5

Capability

The RF-6550H, HF Radio Programming application, v6.0, supports programming of the MPR-9600 through the RF-6800-AD027 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	**Max Data Rate (bps)**	**Modem(s)**	**Encryption**	**Radio Modes Supported**	**Data Method**
ARQ (1052A) in Radio	2400	110A	Clear, Citadel	ALE, FIX HOP**	Asynchronous
S-5066 in PC	9600	110B	Clear, Citadel	ALE, FIX	Synchronous
S-5066 in PC	2400	110A	Clear, Citadel	ALE, FIX, HOP	Synchronous
S-5066 in PC	2400	110A	Datotek	ALE, FIX	Synchronous
S-5066 in PC	16000	WBFSK	Clear, Citadel	FIX	Synchronous

** For e-mail messaging mode of ARQ, in HOP mode, messages can be sent only as ARQ

PRC-117F Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following PRC-117F firmware versions:

Hardware/Firmware Version
V5.2.1.3

Capability

The RF-6550M, Falcon III Radio Programming application, v2.6, supports programming of the PRC-117F through the RF-6800-AD127 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	Max Data Rate (bps)	Encryption	Radio Modes Supported	Data Method
HPW in radio	56000	KG-84C	HPW-SATCOM - 25 kHz	Asynchronous
HPW in radio	8500	KG-84C	HPW-SATCOM - 5 kHz	Asynchronous
HPW in radio	56000	KG-84C	HPW-LOS	Asynchronous
S-5066 in PC	64000	Clear, KG-84C	TCM	Synchronous
S-5066 in PC	16000	Clear, VINSON	FM	Synchronous
S-5066 in PC	2400	ANDVT, KG-84C	5 kHz DAMA	Synchronous
S-5066 in PC	16000	VINSON	25 kHz DAMA	Synchronous
S-5066 in PC	4800	KG-84C	25 kHz DAMA	Synchronous
S-5066 in PC	2400	ANDVT	25 kHz DAMA	Synchronous
S-5066 in PC	16000	VINSON	SINCGARS FH	Synchronous
S-5066 in PC	16000	VINSON	HAVEQUICK FH	Synchronous

PRC-150 Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following PRC-150 firmware versions:

Hardware/Firmware Version
V1.5.5
V1.5.2

Capability

The RF-6550H, HF Radio Programming application, v6.0, supports programming of the PRC-150C through the RF-6800-AD027 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	Max Data Rate (bps)	Modem(s)	Encryption	Radio Modes Supported	Data Method
3G (S-4538) in Radio	4800	S-4538	Clear, Citadel, KG-84, ANDVT-BD	3G	Asynchronous
ARQ (1052A) in Radio	2400	110A	Clear, Citadel, KG-84	ALE, FIX HOP**	Asynchronous
S-5066 in PC	9600	110B	Clear, Citadel, KG-84, ANDVT-BD	ALE, FIX	Synchronous
S-5066 in PC	2400	110A	Clear, Citadel, KG-84, ANDVT-BD	ALE, FIX, HOP	Synchronous
S-5066 in PC	2400	S-4285	Clear, Citadel	ALE, FIX	Synchronous
S-5066 in PC	16000	WBFSK	Clear, Citadel, VINSON	FIX	Synchronous
S-5066 in PC	2400	110A	ANDVT-HF*	ALE, FIX	Synchronous

RF-5800H Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following RF-5800H firmware versions:

Hardware/Firmware Version
V1.5.5
v1.5.1

Capability

The RF-6550H, HF Radio Programming application, v6.0, supports programming of the RF-5800H through the RF-6800-AD027 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	Max Data Rate (bps)	Modem(s)	Encryption	Radio Modes Supported	Data Method
3G (S-4538) in Radio	4800	S-4538	Clear, Citadel	3G	Asynchronous
ARQ (1052A) in Radio	2400	110A	Clear, Citadel, KG-84	ALE, FIX HOP**	Asynchronous
S-5066 in PC	9600	110B	Clear, Citadel	ALE, FIX	Synchronous
S-5066 in PC	2400	110A	Clear, Citadel	ALE, FIX, HOP	Synchronous
S-5066 in PC	2400	110A	Datotek	ALE, FIX	Synchronous
S-5066 in PC	16000	WBFSK	Clear, Citadel	FIX	Synchronous

RF-5800V-MP Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following RF-5800V-MP firmware version:

Hardware/Firmware Version
v7.0
V6.5

Capability

The RF-6550V, VHF/UHF Radio Programming application, v7.0, supports programming of the RF-5800V-MP through the RF-6800-AD127 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	Max Data Rate (bps)	Modem(s)	Encryption	Radio Modes Supported	Data Method
S-5066 in PC	64000	TCM	Clear, Citadel	TCM	Synchronous
S-5066 in PC	16000	WBFSK	Clear, Citadel	FM	Synchronous

RF-5800V-HH Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following RF-5800V-HH firmware versions.

Hardware/Firmware Version
v7.0
v6.5a

Capability

The RF-6550V, VHF/UHF Radio Programming application, v7.0, supports programming of the RF-5800V-HH through the RF-6800-AD018 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	Max Data Rate (bps)	Modem(s)	Encryption	Radio Modes Supported	Data Method
S-5066 in PC	16000	WBFSK	Citadel*	FM	Synchronous

RF-5800M-MP Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following RF-5800M-MP firmware version:

Hardware/Firmware Version
v5.0.2.5a

Capability

The RF-6550V, VHF/UHF Radio Programming application, v6.1, v6.5.1, v7.0, supports programming of the RF-5800M-MP through the RF-6800-AD127 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	Max Data Rate (bps)	Modem(s)	Encryption	Radio Modes Supported	Data Method
S-5066 in PC	64000	TCM	Clear, Citadel	TCM	Synchronous
S-5066 in PC	16000	WBFSK	Clear, Citadel	FM, AM, QL1A	Synchronous

RF-5800M-HH Radio Compatibility

Firmware

RF-6800 has been tested and verified with the following modes when using the RF-5800M-HH030 and RF-5800M-HH130 radios.

Hardware/Firmware Version
v7.0
v6.5a

Capability

The RF-6550V, VHF/UHF Radio Programming application, v6.1, v6.5.1, v7.0, supports programming of the RF-5800M-HH through the RF-6800-AD018 URDA.

The RF-6760W v1.1, Wireless Message Terminal, supports data communications with the URDA when the radio is configure as indicated in the following table:

E-mail Messaging Mode	Max Data Rate (bps)	Modem(s)	Encryption	Radio Modes Supported	Data Method
S-5066 in PC	16000	WBFSK	Citadel	FM	Synchronous

Installation Notes

Install USB Radio Data Adapter Driver

The RF-6800, USB Radio Data Adapter (URDA), provides asynchronous remote communications between the radio and computer is required.
The adapter and associated driver provide USB to radio asynchronous remote control for programming the purpose of programming various Harris radios. The adapter and driver also allows for asynchronous PPP connections that provides the transport protocol for the purpose of transferring UDP packets over RDP.

It is desirable to preinstall the URDA driver before connecting the device.

To display information on the CD and perform the URDA driver installation, turn on the computer and insert the URDA CD into a CD driver. URDA Driver Installer welcome screen should appear (see Figure 1-1).

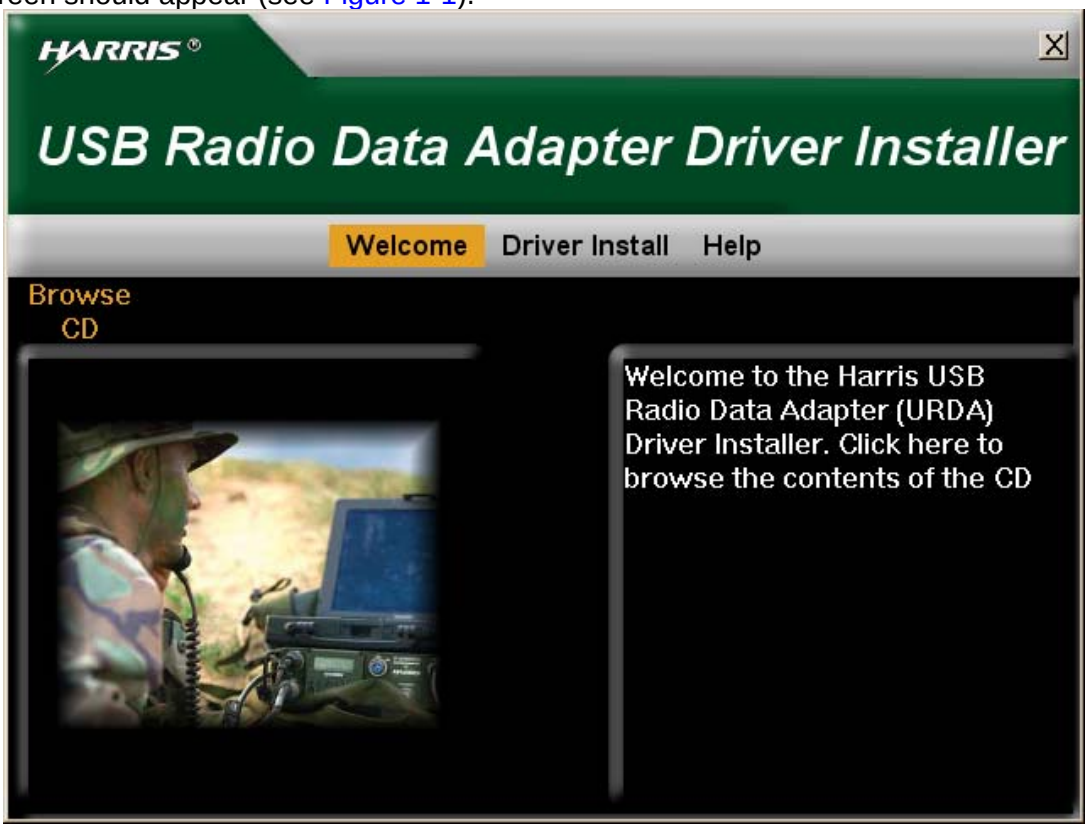

Figure 1-1 URDA Installer Welcome Screen

2.9.1 Accessing files on the CD

The CD also includes links to display the End-User-License Agreement files, this Help File, the Operator Card, and install Adobe Acrobat Reader (see Figure 1-2). This information can be accessed by selecting **Help** on the welcome screen.

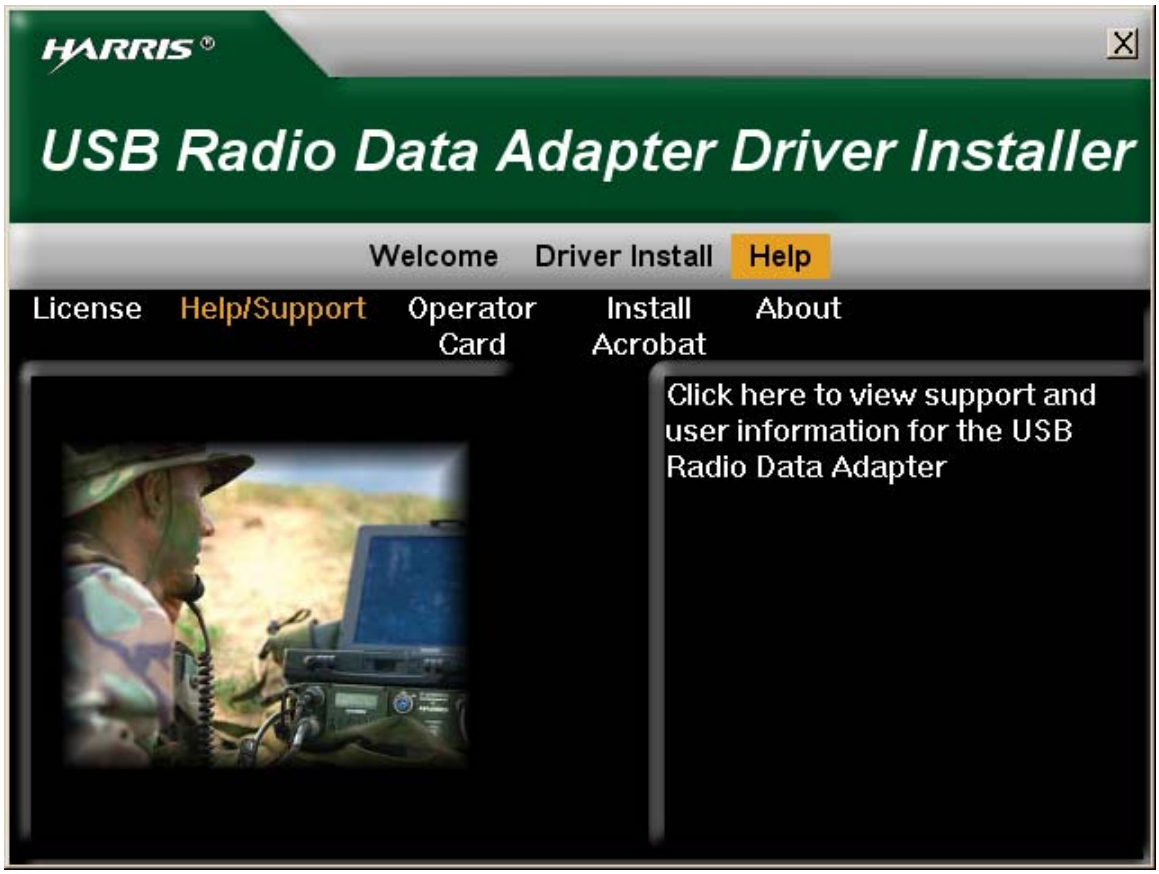

Figure 1-2 Access URDA Help

2.9.2 Preinstall the URDA Driver

Note

Do not connect a URDA until instructed to do so in the following procedure.

1. Turn on computer and insert the URDA CD into CD drive. URDA Driver Installer welcome screen should appear (see Figure 1-1). If URDA does not autorun, start installation manually from **d:\PPS_IntroProgram.exe** (where **d** is the CD drive letter) from within Windows Explorer or by using **Start>Run**.

2. Go to **Driver Install->Install Driver**. URDA installation wizard screen appears (see Figure 1-3).

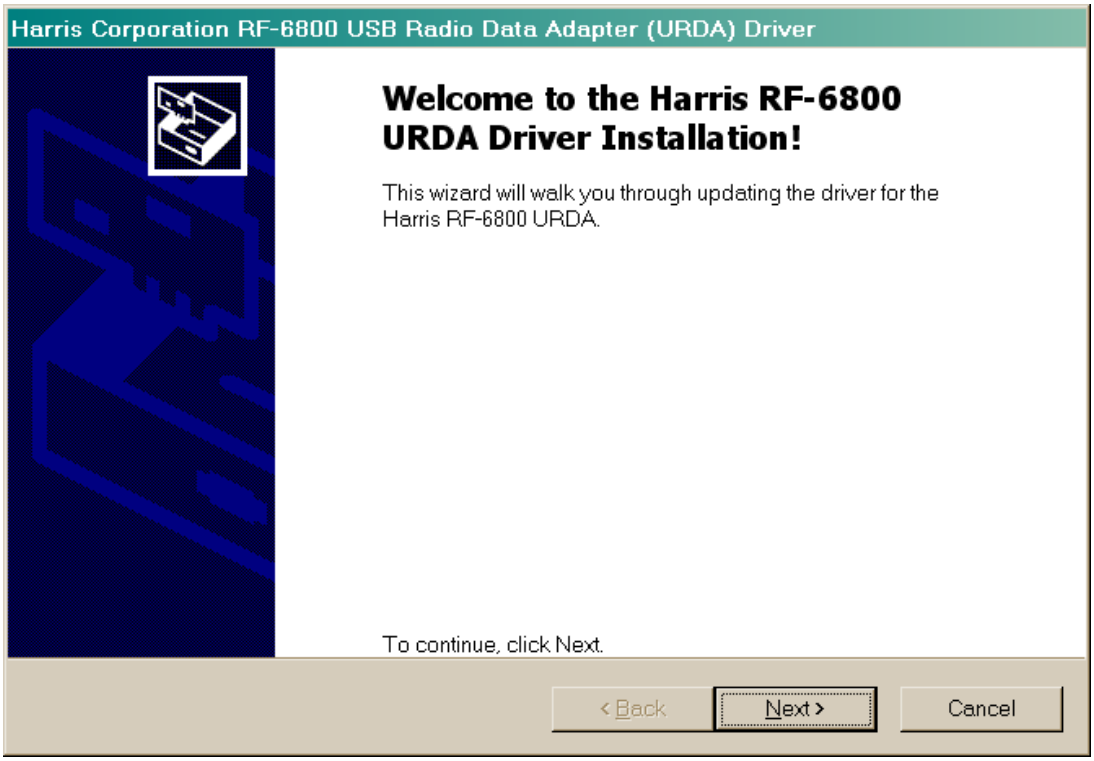

Figure 1-3 URDA Installation Wizard Screen

3. Click Next to proceed with the driver installation. The next screen presented allows the user to accept or decline the end user license agreement (see Figure 1-4). This screen also allows the user to save a copy or print a copy of the EULA.

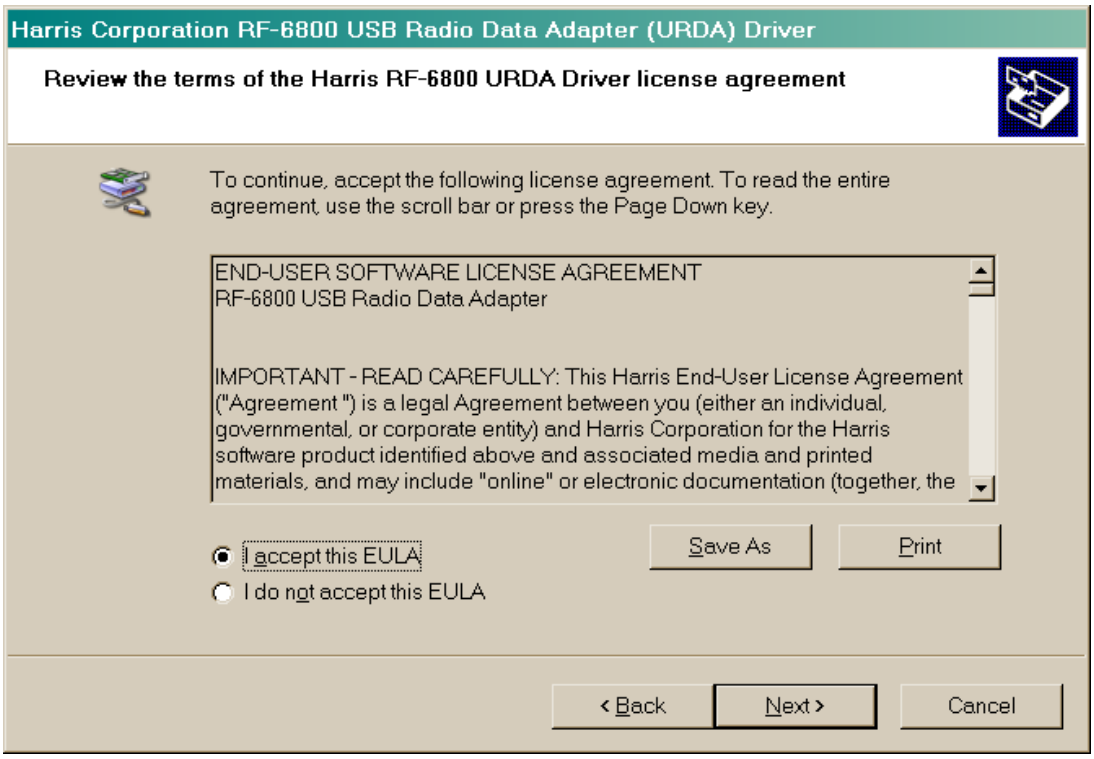

Figure 1-4 URDA EULA Screen

4. Select “I accept this EULA and click Next to continue with the URDA driver installation (see Figure 1-5) and wait for the driver installation to complete.

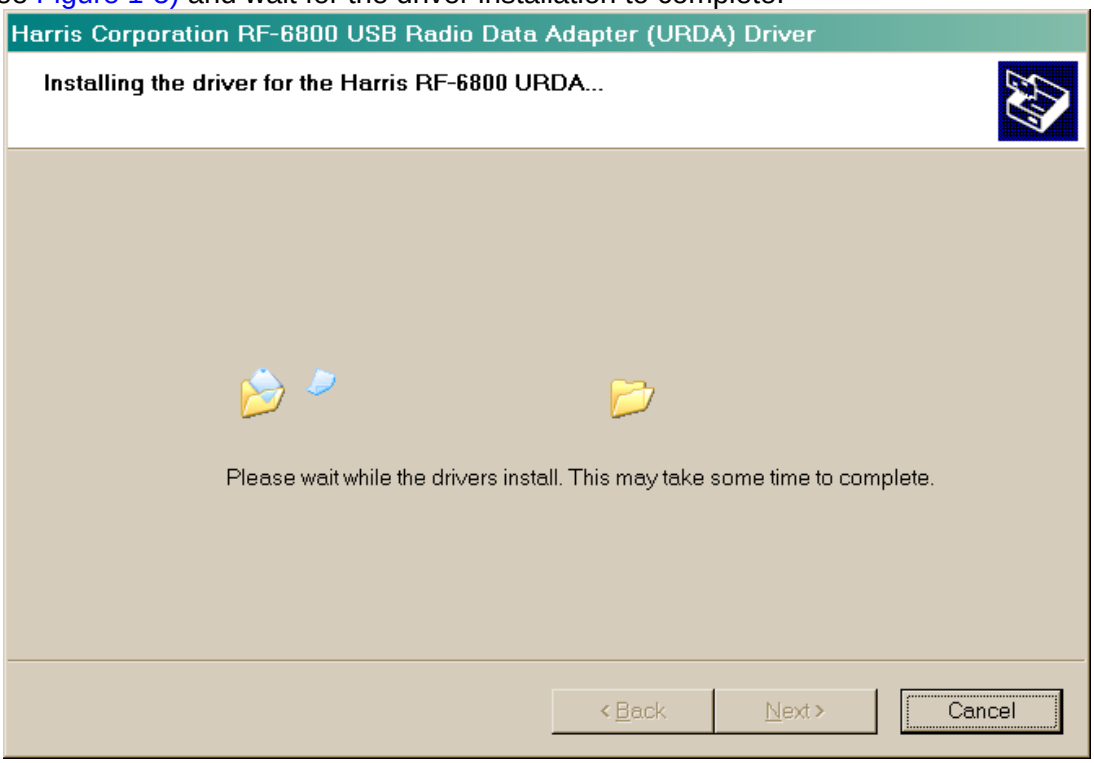

Figure 1-5 URDA Driver Installation in Progress

5. Following the successful installation the URDA Driver, the screen shown below will be displayed (see Figure 1-6).

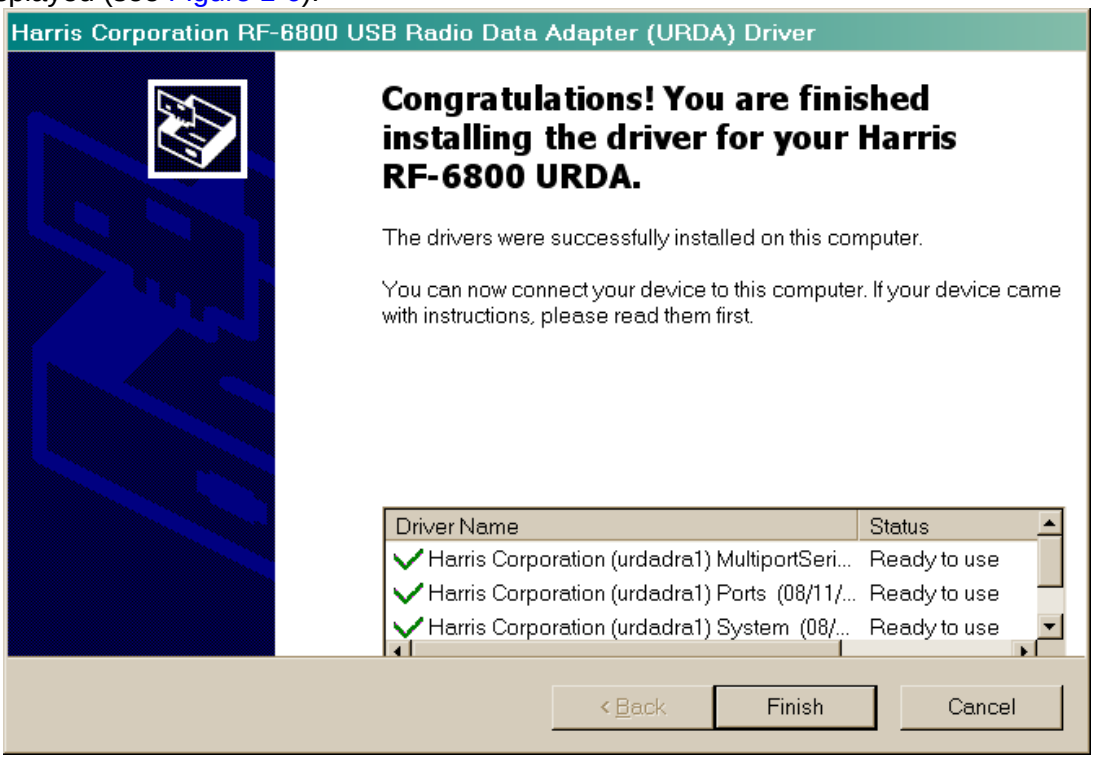

Figure 1-6 URDA Installation Complete Screen

6. Click **Finish** to exit this screen.
7. Connect the desired URDA to the PC USB connector and the appropriate radio connector.

8. Depending upon the Windows Operating System installed on the PC, a series of Windows Device Manager screens may appear (see Figure 1-7 and 1-8). Follow the “Recommmended” instructions on the screens.

Note
Some Windows Operating System require that the device installation be performed by a user who has logged in and has administrative privileges

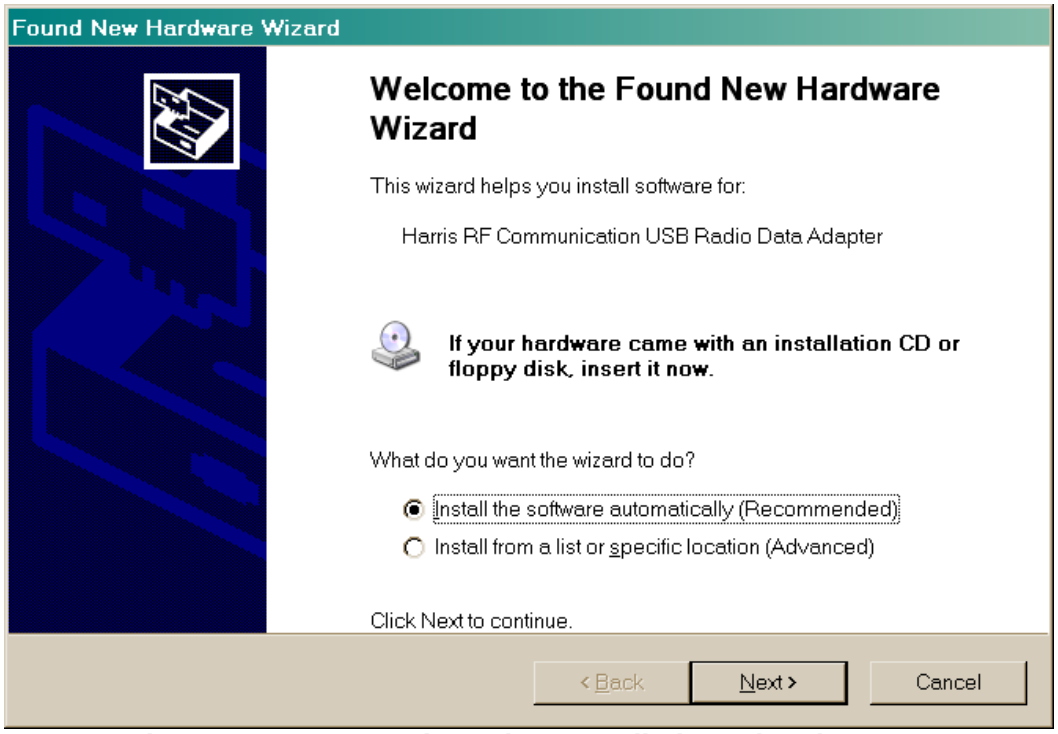

Figure 1-7 URDA Device Driver Installation Wizard Screen

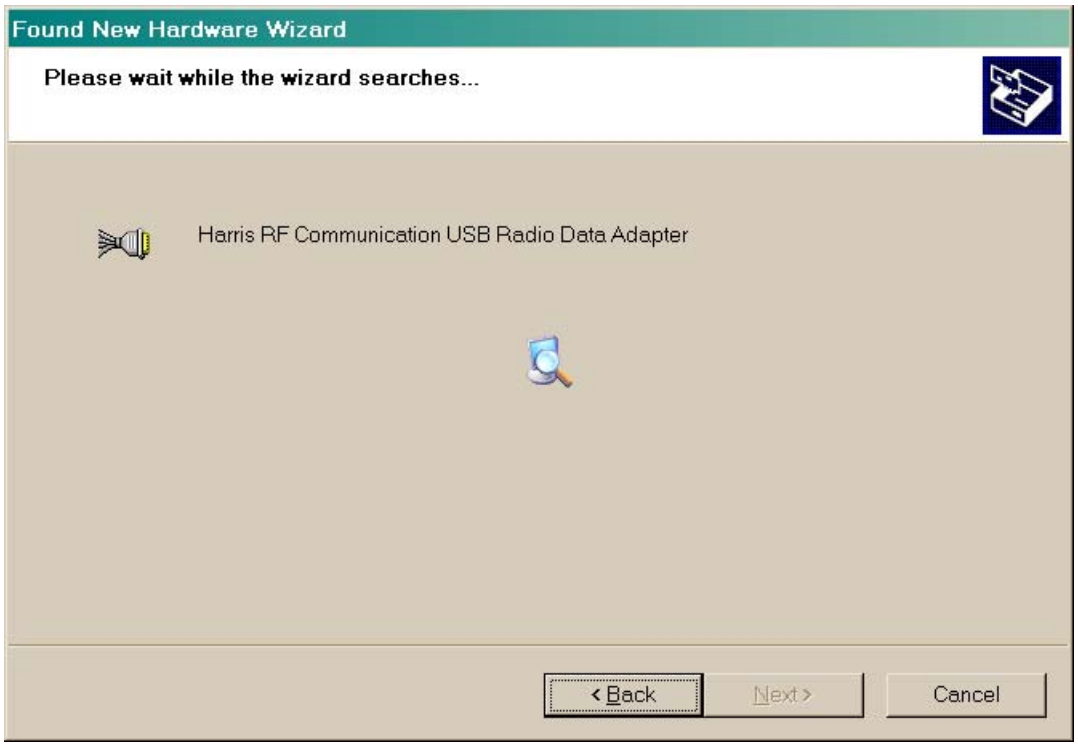

Figure 1-8 URDA Device Driver Installation Search Screen

9. The URDA device and radio are now ready for use.

URDA Frequently Asked Questions

FAQ [OPER-1]: I am unable to create a PPP connection while using the RF-6800-AD018 adaptor with the RF-5800V-HH and RF-5800M-HH Radios. What could be the problem?

CAUSE

If the radio's PPP data rate is configured for 115.2 Kbps, the adaptor may be unable to create a connection because of data rate tolerance issues in the radio.

SOLUTION

Adjust the PPP data rate configuration of the radio and dial-up connection of the associated asynchronous COM port to 57.6 Kbps or lower.

URDA Weight and Size

URDA Size and Weight info	
Measurement	*URDA Version*
	RF-6800-AD027, RF-6800-AD127
Length without radio cable	3.766"
Length with radio cable	29"
Width	1.331"
Height	1.10"
Weight	1.17lbs
	RF-6800-AD018, RF-6800-AD032
Length	3.05"
Width	1.30"
Height	1.745"
Weight	0.80lbs

Warranty

Harris Corporation guarantees that if the URDA fails from normal use within one year from the date of shipment due to a defect in workmanship or materials, Harris will repair or replace the unit at no charge. Repairs made by Harris under this warranty are warranted to be free from defects in material and workmanship for 60 days from the date of repair. For information on how to process a claim under this warranty, contact Harris at 585-244-5830.

Technical Support

We recognize that continued success in our business requires a strong commitment to customer support both before and after the sale. We offer this support not only through our sales and service facilities in nearly 90 countries around the world, but also through our Field Engineering Department. This department can assist our customers in the specification, installation, operation, and maintenance of all of our products.

In addition, further help is available via direct communications with our main facility in Rochester, New York using any method shown below:

Mail:

Harris Corporation
RF Communications Division
1680 University Avenue
Rochester, NY 14610
USA

Telephone: 585-244-5830

Fax: 585-242-4755

E-mail: service@rfc.comm.harris.com

Harris RF Communications Website - **http://www.rfcomm.harris.com/**