

Tune-Up Procedure (Duo-i6525)

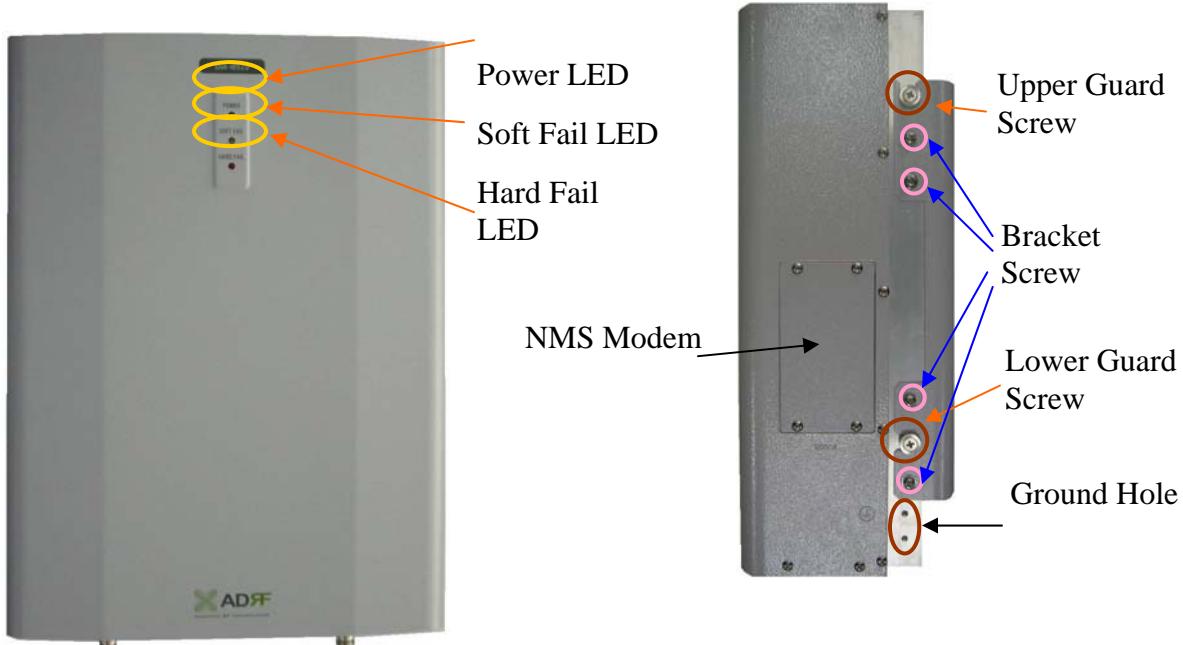


Figure 1 – Duo-i6525 Front & Side Views

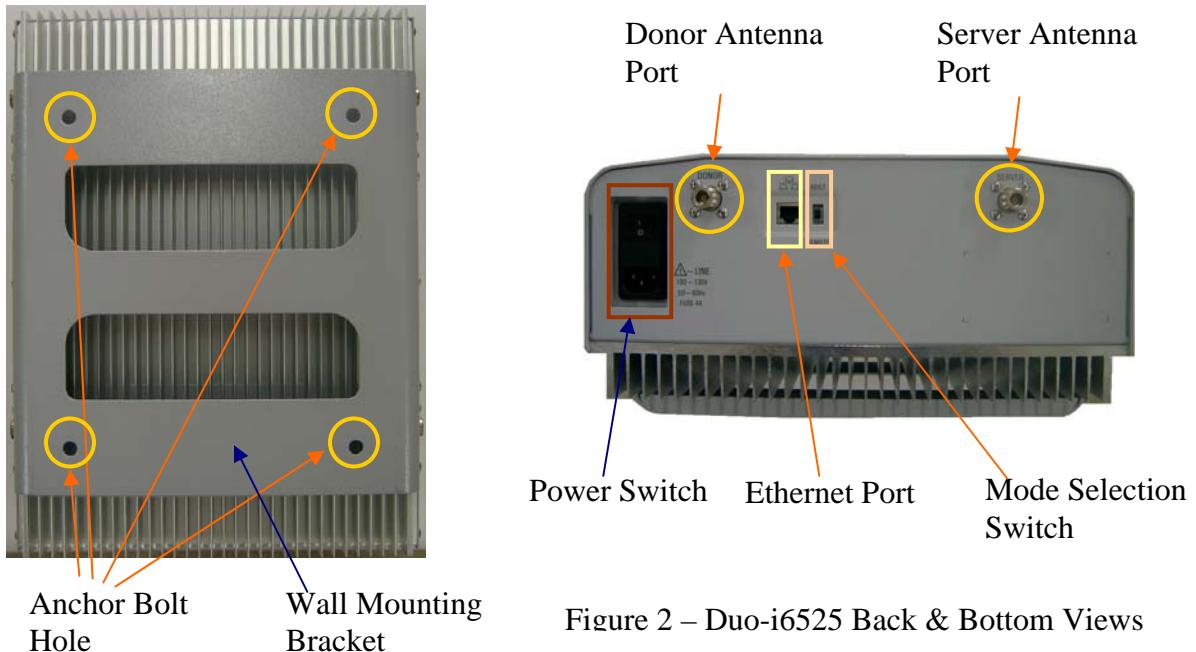
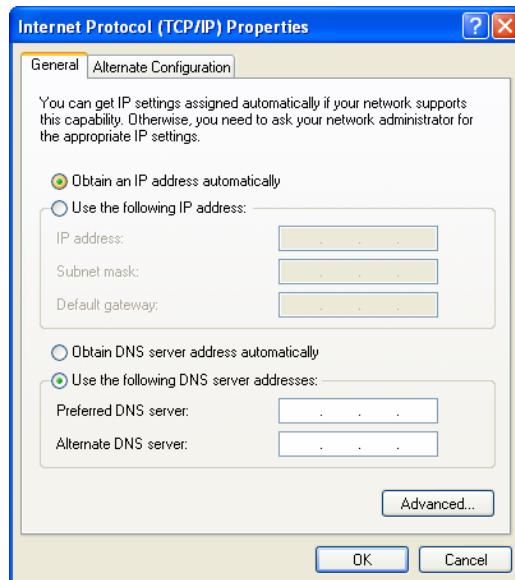
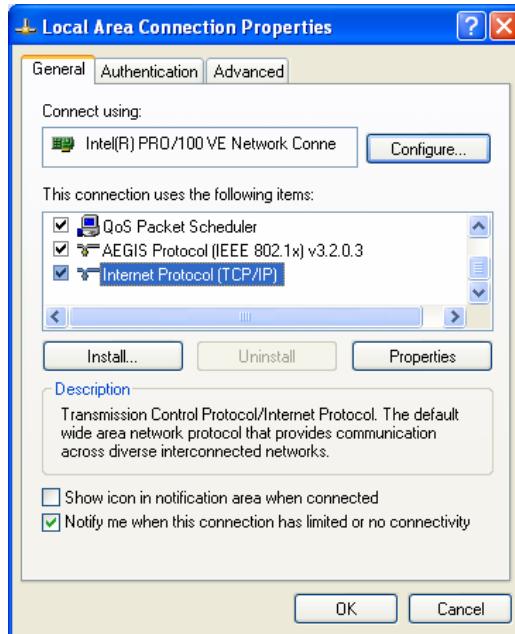


Figure 2 – Duo-i6525 Back & Bottom Views

- i) Connect the LAN cable between laptop's Ethernet port and repeater's Ethernet port.

Note: Under Local Area Connection in Network Settings, make sure to select **Obtain an IP address automatically** under Internet Protocol (TCP/IP) properties.



- ii) Launch MS Internet Explorer (Version 6.0 or higher)

Note: ADRF's Web GUI is not compatible with any other web browsers (e.g. Netscape, FireFox, Mozilla, etc.).

iii) Please type the following IP address on the address bar of MS Internet Explorer:

<http://192.168.63.1/home.asp>

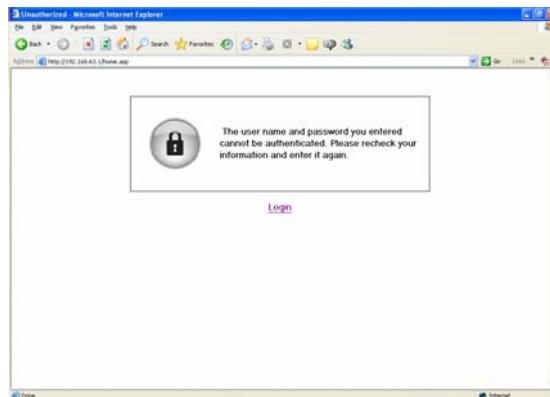
iv) The following login screen will appear:



If you are not the Super-User, please type in your assigned username & password which you should have received from the Super-User.

The default username and password for the General User is **adr** & **adr**, respectively.

If the username & password is typed in incorrectly, the following screen will appear:



v) If you click on **Status tab**, the following window will appear:

The screenshot shows the ADRF Remote Operation & Management System (AROMS) interface. The 'Status' tab is active. On the left, there's a sidebar with the ADRF logo and a message: "Advanced RF Technologies, Inc. supplies innovative coverage solutions to leading wireless service providers around the world. We Make Smarter Repeaters". The main content area has several tables and sections:

- iDEN Band:** A table showing DownLink and UpLink frequencies for S8 (860.0 MHz, 815.0 MHz) and S9 (937.5 MHz, 898.5 MHz).
- Power & Gain:** A table showing Input (dBm), Gain (dB), and Output (dBm) for DownLink and UpLink.
- Alarm:** A table showing Under Current, Over Temperature, VSWR at Server, RSSI at Donor, and RF Power status (Normal, Soft Fail, Hard Fail).
- Message Board:** A list of log entries from 01/09/2007 to 01/09/2007, including Repeater Installation Success, Uplink Isolation, Downlink Isolation, RSSI Alarm, and Power Alarm.
- Repeater Info:** Fields for Repeater S/N (C4529-B4070010), Modem ESN (----), and Modem MDN (----).
- Repeater Location:** Information for Advanced RF Technologies, 2607 Colorado Blvd, Los Angeles, CA 90041.
- Technical Support:** Phone (1-800-313-9345) and Email (techsupport@adrftech.com).
- Installer Contact Info:** Company (Advanced RF Technologies), Installer (James Turner), Phone (323-254-9131), and Email (techsupport@adrftech.com).

In this window, the user can **view** the following:

To **change** any parameters, e.g., iDEN Band, Gain Settings, you have to go to **Install** or **Control** Menu.

- iDEN Band: Will display the center frequencies of the 800 and 900 MHz spectrums on the downlink and uplink respectively.

→ **iDEN Band**

| Band | DownLink | UpLink |
|------|-----------|-----------|
| S8 | 860.0 MHz | 815.0 MHz |
| S9 | 937.5 MHz | 898.5 MHz |

- Power & Gain: Will display the repeater input, gain and output power on the downlink and uplink.

→ **Power & Gain**

| IDEN | DownLink | UpLink |
|--------------|----------|--------|
| Input [dBm] | -45.0 | -77.1 |
| Gain [dB] | 65.0 | 65.0 |
| Output [dBm] | 19.9 | -10.0 |

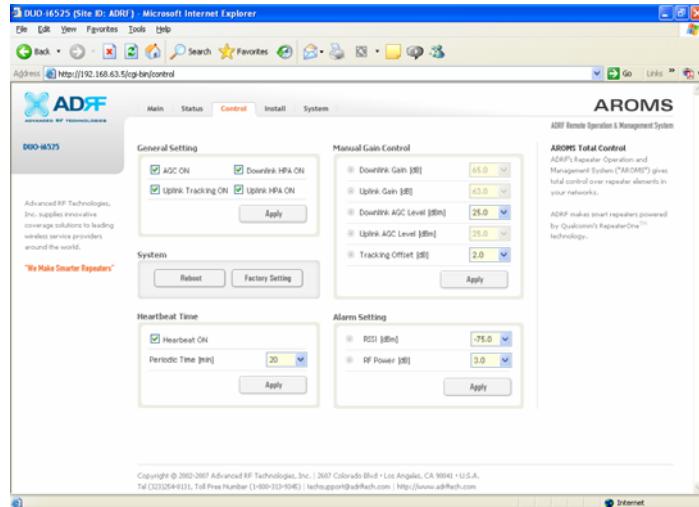
- Alarm: Will display five alarms with three different status conditions (Normal, Soft Fail or Hard Fail).
- Message Board: Will show up to recent 20 log messages (Alarms & Heartbeat s).
- Modem: Will display the status of the mode (e.g. Disabled, Not Connected or Connected)
- Installation: Will display repeater's installation status (Not Installed or Installed).
- Repeater Info: Will display repeater's serial number, modem ESN and MDN.
- Repeater Location: Will display the address where the repeater is installed
- Technical Support: Will display ADRF's Technical Support contact information.
- Installer Contact Info: Will display the installer's name, phone and e-mail address.

Note: Once successfully logged in, the repeater model name and the site/cascade ID will be displayed on the top of all the windows (except for the Main Window).

| Parameters | Range | Step Size |
|--------------------|--------------|-----------|
| DL/UL Output Power | -10 ~ 28 dBm | 0.1 dB |
| DL Input Power | 5 ~ -95 dBm | 0.1 dB |
| Gain | 40 ~ 65 dB | 0.5 dB |

Table 2 – Default Parameter Ranges

vi) If you click on **Control tab**, the following window will appear:



In this window, the user can adjust the following parameters:

General Setting

- Automatic Gain Control (Default mode is Off)
- Downlink HPA on/off (Default mode is On)
- Uplink HPA on/off (Default mode is On)
- Uplink Tracking mode on/off (Default mode is Off)

Manual Gain Control

- Downlink Gain Control (40 to 65 dB @ 0.5 dB step, default value: 25 dB)
- Uplink Gain Control (40 to 65 dB @ 0.5 dB step, default value: 25 dB)
- Downlink AGC Level (15 to 25 dBm @ 0.5 dB step)
- Uplink AGC Level (15 to 25 dBm @ 0.5 dB step)
- Uplink Tracking Offset (0 to 10 dB @ 0.5 dB step - Default mode is Off)

System

- If you click the Reboot button, the following message box will appear:



- If you click the Factory Setting button, the following message box will appear:



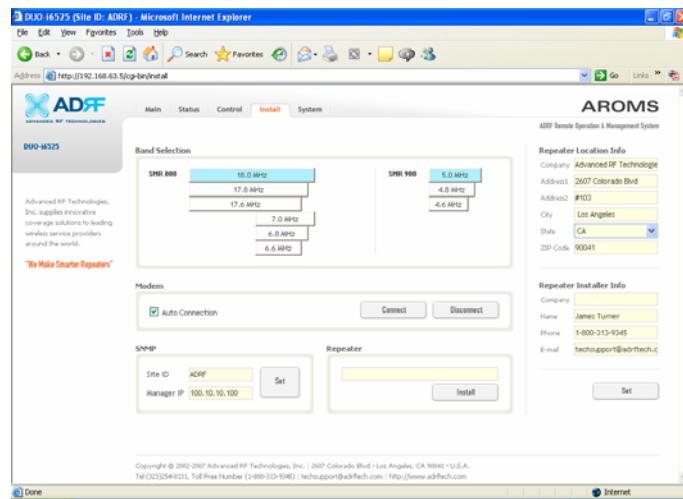
Heartbeat Time

- Heartbeat on and off (Default mode is Off)
- Heartbeat periodic time (Range: 1 to 59 min @ 1 min step – Default time is 20 min)

Alarm Setting

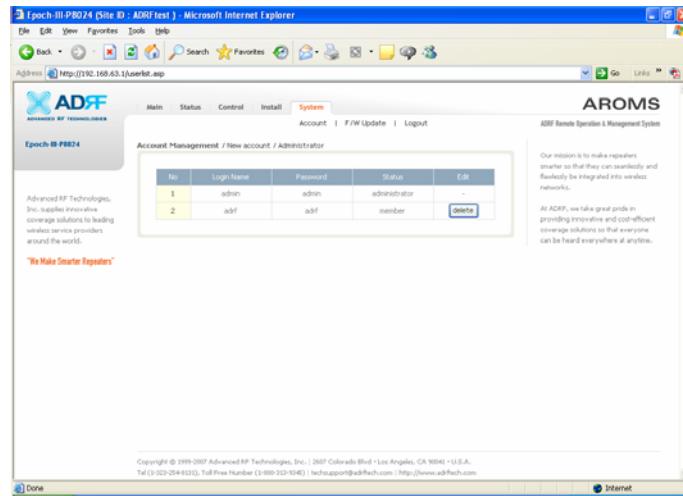
- RSSI Alarm at Donor (-95 ~ -50 dBm @ 0.5 dB step – Default value is -75 dBm)
- RF Power Alarm (2 ~ 10 dB @ 0.5 dB step – Default value is 3 dB)

vii) If you click on **Install tab**, the following window will appear:



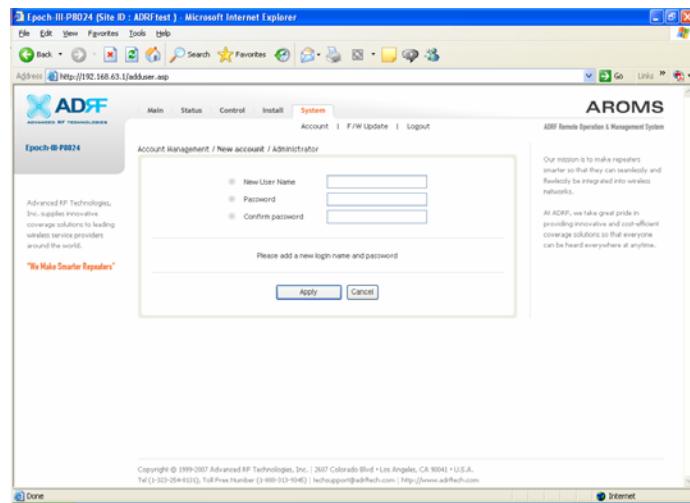
- Band Selection: Simply click on the desired operating bandwidth.
- Modem: By default, auto-connection box is checked so that the modem will connect automatically once sufficient donor signal is present.
- SNMP: Type in the assigned site/cascade ID and manager IP address. Default Site ID and Manager IP address is ADRF and 100.10.10.100 respectively.
- Repeater: Click Install button to automatically setup the repeater.
- Repeater Location: Will display the physical address where the repeater is installed
- Repeater Installer Info: Will display the installer's name, phone and e-mail Address for technical support.

viii) If you click on **System tab**, the following window will appear:

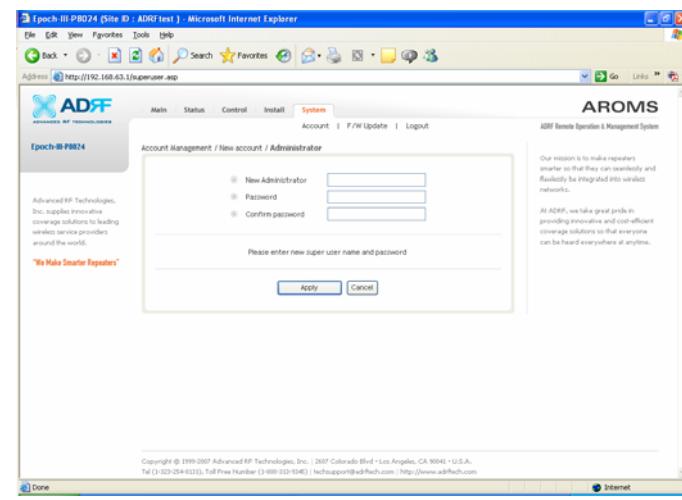


Note: If you are the Super User, you will see account management section under the System Window. If you are a local user, you will not be able to see the account management portion.

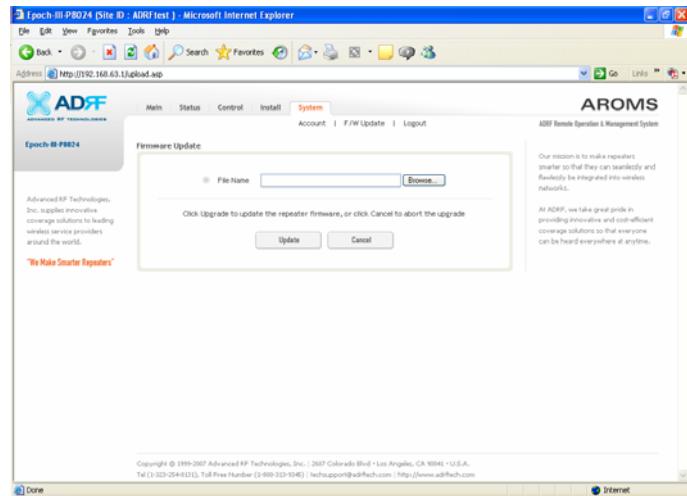
Only the Super-User can add, delete and modify a user. The following window illustrates how a new user can be added by simply clicking on New Account.



The following window illustrates how a new administrator can be added by simply clicking on Administrator.



If you click on Firmware Upgrade, the following window will appear. You can browse through your PC and locate the firmware file. Once it's selected, simply click on Update and it'll upload the latest firmware automatically and close the session. You will need to re-login again.



Trouble Shooting

If you encounter a problem during the installation and an “Installation Incomplete” message comes up, please contact the Technical Support Department at:

E-Mail: techsupport@adrfttech.com

Phone: 1-800-313-9345 / 323-254-8131