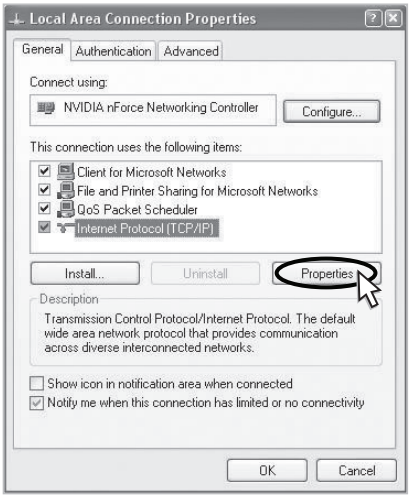
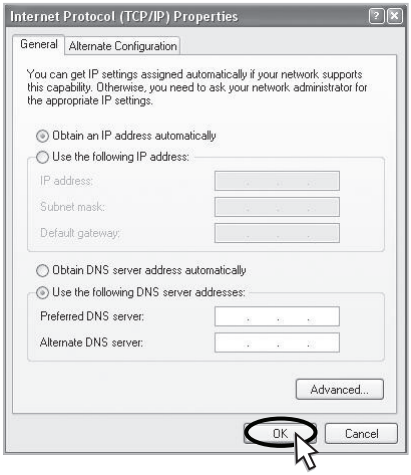
Step 4 Select **Internet Protocol (TCP/IP)** and click **Properties**.



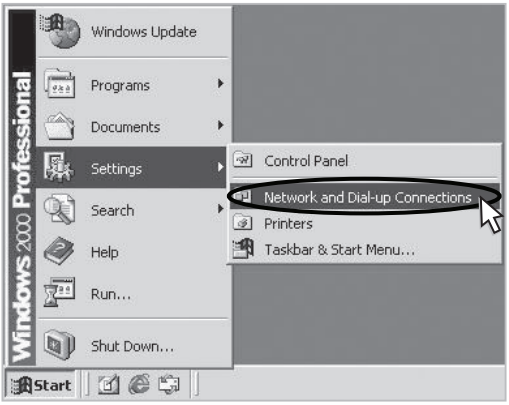
Step 5 Check **Obtain an IP address automatically** and click **OK**.



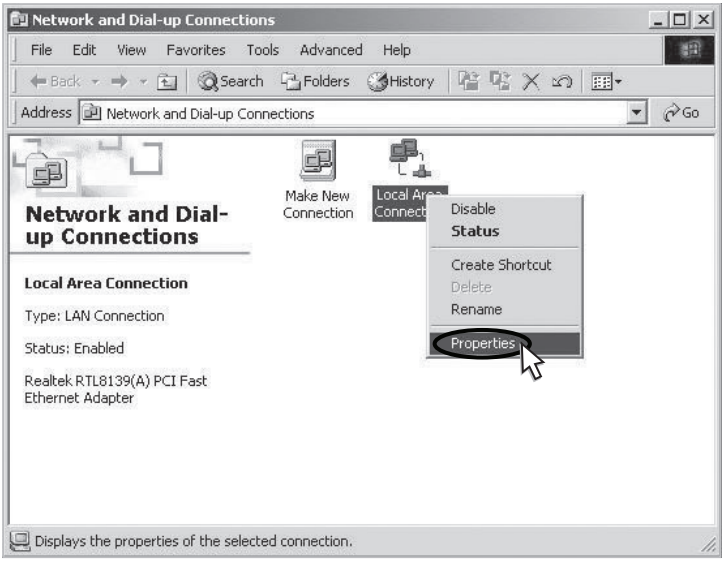
Step 6 Close all windows.

4.3.2 Windows 2000

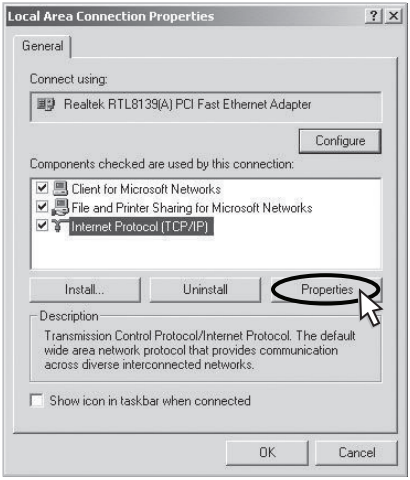
Step 1 Click the **Start** button, point to Settings, and then click **Network and Dial-up Connections**.



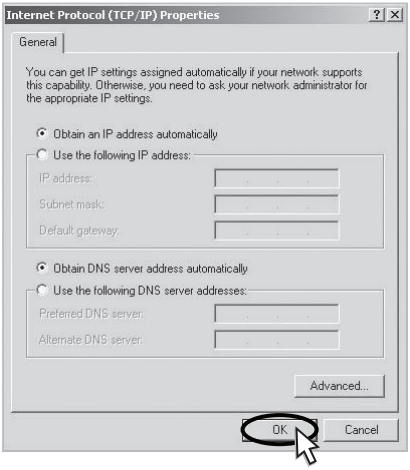
Step 2 Right-click **Local Area Connection** to see a shortcut menu and click **Properties**.



Step 3 Select **Internet Protocol (TCP/IP)** and click **Properties**.



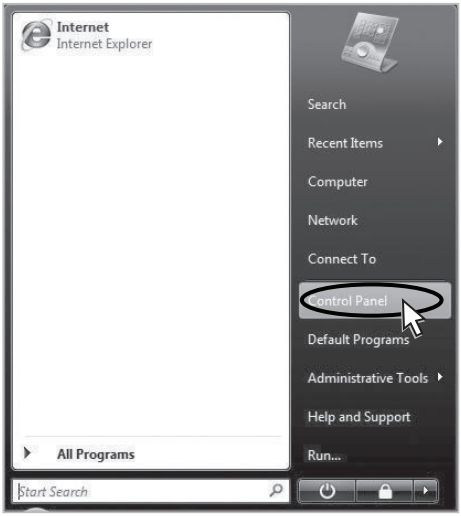
Step 4 Check **Obtain an IP address automatically** and click **OK**.



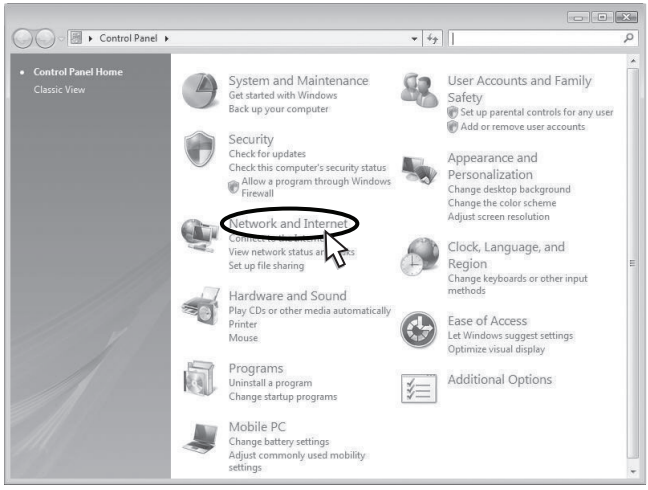
Step 5 Close all windows.

4.3.3 Windows Vista

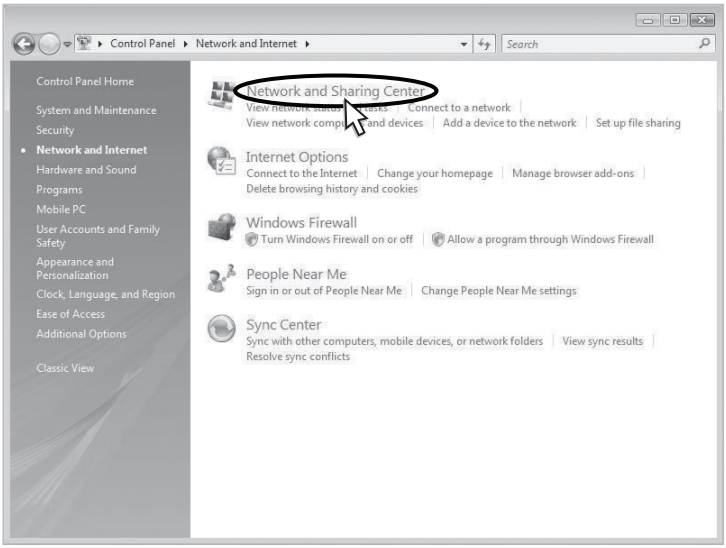
Step 1 Click the **Start** button and **Control Panel**.



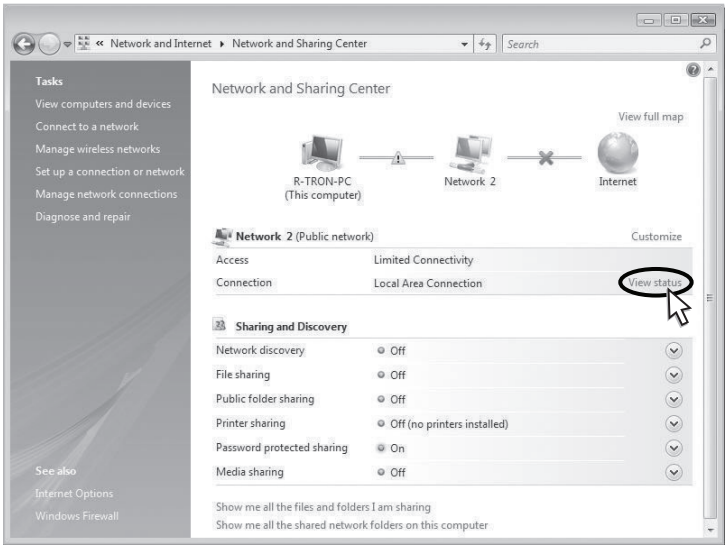
Step 2 Click **Network and Internet**.



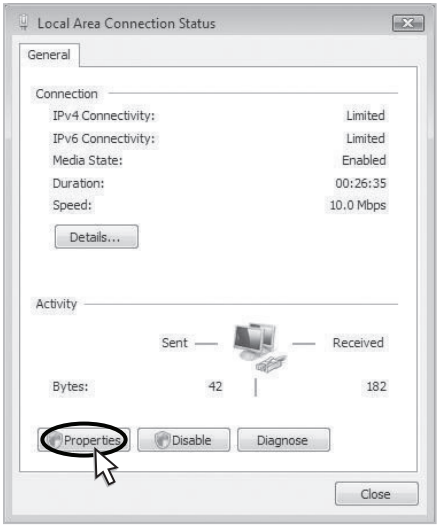
Step 3 Click **Network and Sharing Center**.



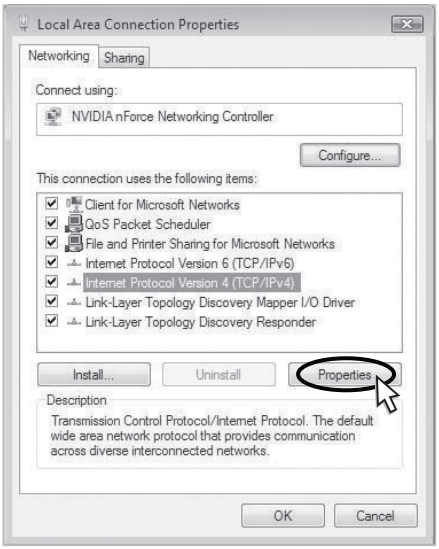
Step 4 Click **View status** of **Local Area Connection**.



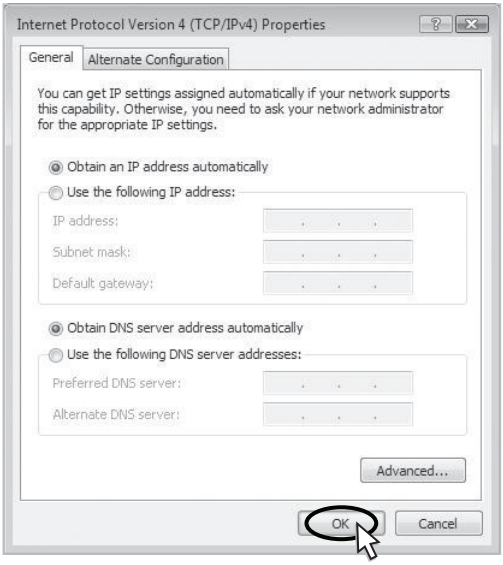
Step 5 Click **Properties** and a caution pop-up window will appear. Click **OK**.



Step 6 Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



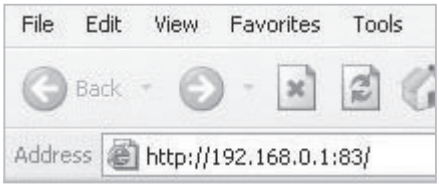
Step 7 Check **Obtain an IP address automatically** and click **OK**.



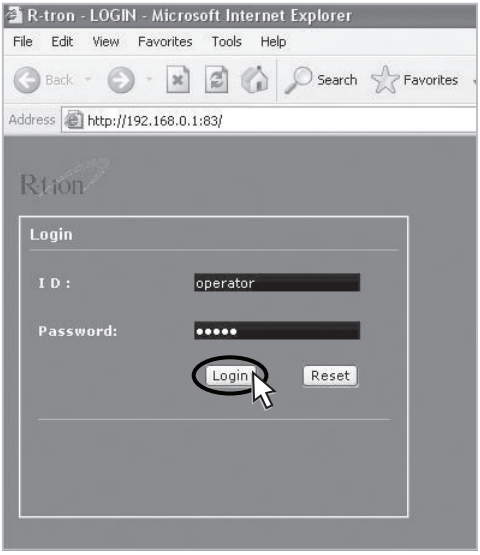
Step 8 Close all windows.

4.4 System Login

Step 1 Open your Web browser and type **"192.168.0.1:83"** into the URL address box. Then press the **Enter** key.

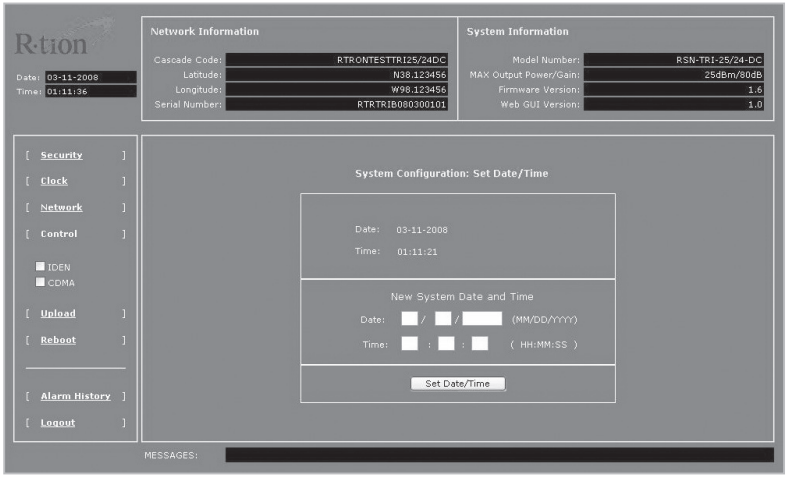


Step 2 The logon screen will appear. Type **"operator"** for the ID and **"rtron"** for the password and then click **OK**.



Step 3 The pop-up message for the login success will appear. Click **OK**.

Step 4 The login process is complete. The Initial screen will appear.



Step 5 In case of the initial login, you should input Cascade Code and Location Information of Network Setup. Otherwise a warning pop-up window will appear and you cannot access any of the menus.

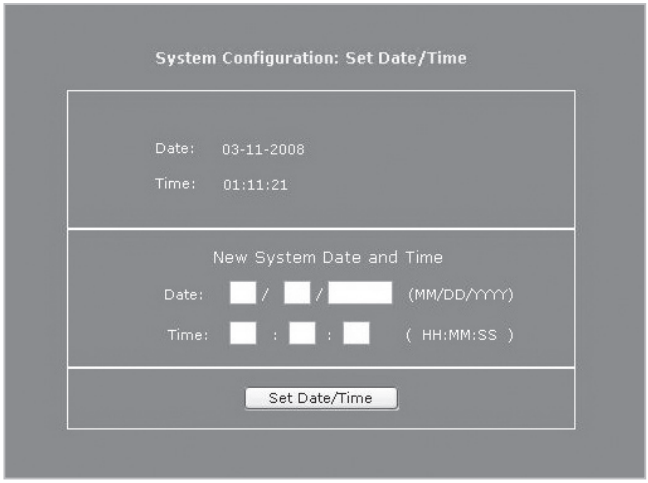
4.5 System Setup

4.5.1 Security

Operator has no authorization to access this menu.

4.5.2 Clock

Click **Clock** in the left menu.
In this menu, you can set the date and the time.
Click **Set Date/Time**.

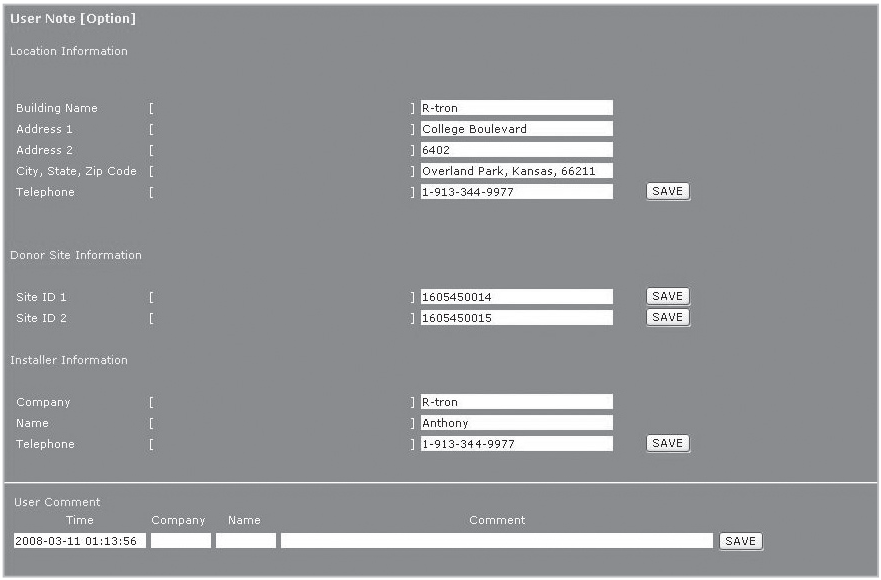


4.5.3 Network

Click **Network** in the left menu.

Network Setup

- **Cascade Code**: Type in the pre-assigned code. **Otherwise, you cannot access system setup.**
- **Location Information**: Enter the latitude and longitude of a location, otherwise you cannot access the system setup. You can input either Decimal Degrees or Degrees-Minutes-Seconds.
  [Example.]
  (‘N/S ‘ | ‘E/W ‘) ddd.dddddd: (Latitude: N 39.006957 Longitude: W 94.532306)
- **Heartbeat Interval**: Sets the time to transmit the Heartbeat to NMC Server. (Default value is 20 minutes. At the setup, temporarily reduce the value to 1 minute. After conforming heartbeat report, set the value back to 20 minutes.)
- **Product Information**: This is for manufacturer used only. DO NOT change this value.
- **Static IP for Remote Control**: Connect to the External Monitoring Device for Remote Access. Do not enter any value unless a static IP is assigned. DHCP client.
- **NMC Server IP**: **Do not change this value;** otherwise, the Heartbeat transmission or Remote Access may not work.



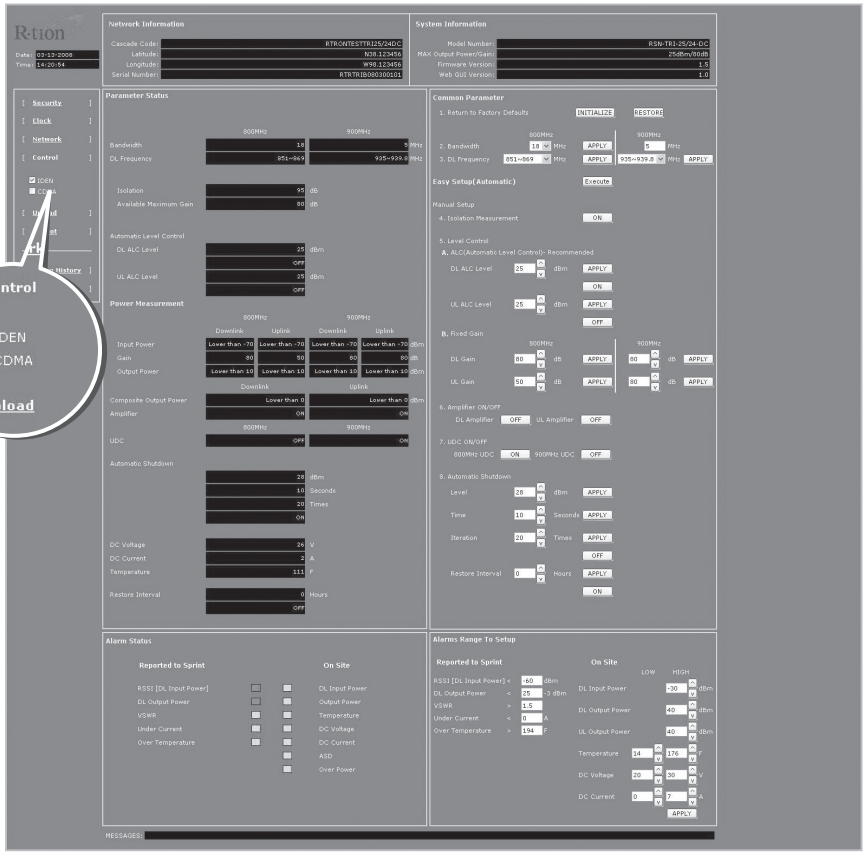
User Note

- **Location Information**: Type the location information such as the building name, address, city, state, zip code and telephone, and then click **SAVE** to save the information you provide.
- **Donor Site Information**: Type the base station's ID, and then click **SAVE** to save the information you provide.
- **Installer Information**: Type the installer information such as the company, name and telephone, and then click **SAVE** to save the information you provide.
- **User Comment**: You can add comments. Up to 50 comments can be stored in the memory. The length of characters for each comment is limited to 60 characters.

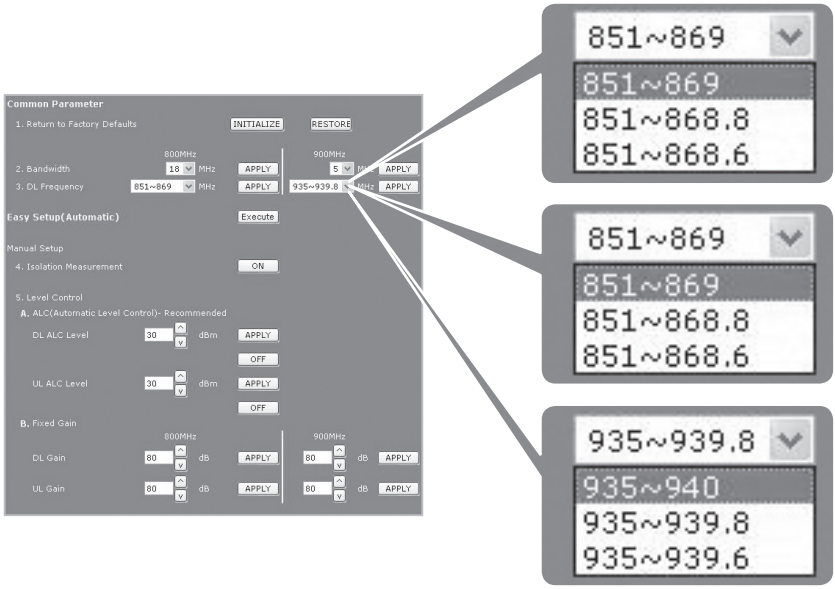
4.5.4 Control

a. iDEN

Check **IDEN** in the left menu.



Parameter Setup



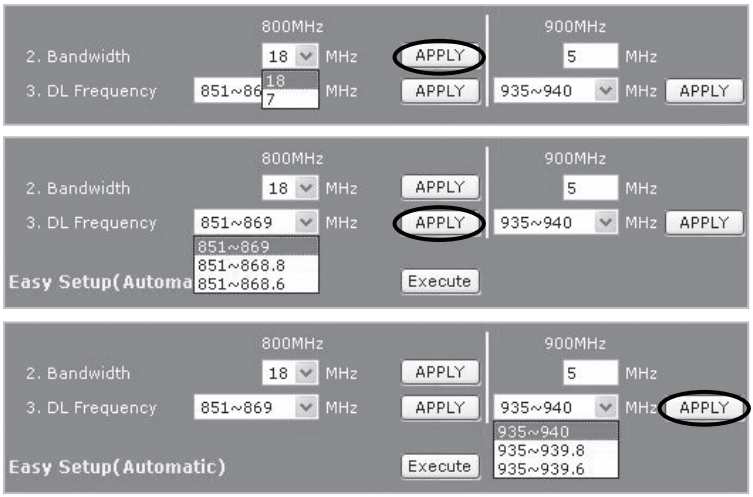
- **Bandwidth/Frequency:**
  - For **IDEN 800**
    If you select 18 MHz for bandwidth, the values of the frequency range are 851~869, 851~868.8, 851~868.6.
    If you select 7 MHz for bandwidth, the values of the frequency range is 862~869, 862~868.8, 862~868.6.
  - For **IDEN 900**
    The values of the frequency range is 935~940, 935~939.8, 935~939.6.

Solution 1. Easy Setup [Recommended]

Step 1 Return to Factory Defaults

- To reset factory defaults, click **INITIALIZE**.
- To restore the previous settings, click **RESTORE**.

Step 2 Select the operating bandwidth and operating frequencies (5MHz-bandwidth fixed in iDEN 900) and click **APPLY**.



Step 3 Easy Setup

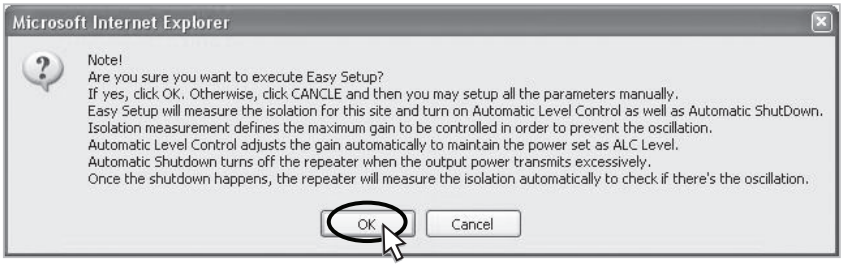
Easy Setup proceeds to:

- Isolation measurement On
- Calculation of Available Maximum Gain by the isolation.
- ASD On
- ALC On to get Maximum DL Output Power 25dBm [Defaults] or Maximum Gain 80dB. Click **Execute**.

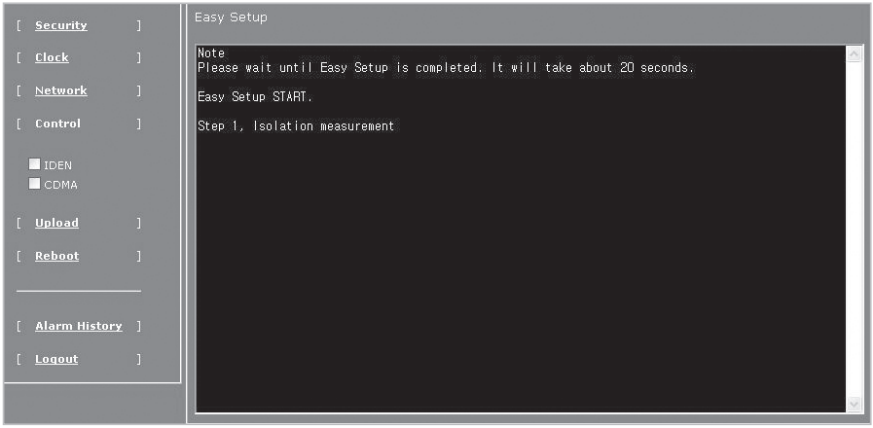
Easy setup feature will measure the isolation and limit the maximum gain accordingly. This will also enable Auto Level Control as well as Auto Shut Down. These two features are strongly recommended to prevent the uncontrolled power output, which could have an adverse impact on the RF network and the repeater. For example, ALC will apply attenuation automatically when the input signal strength is increased due to the new base station deployment near the repeater site.

Step 4 Click **OK**.

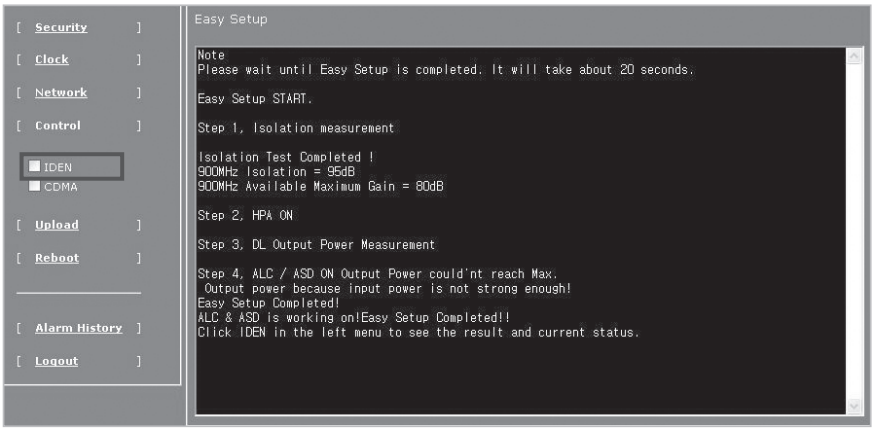
Step 5 Click **OK** again.



Step 6 Setup will automatically begin. This process will take approximately 20seconds.

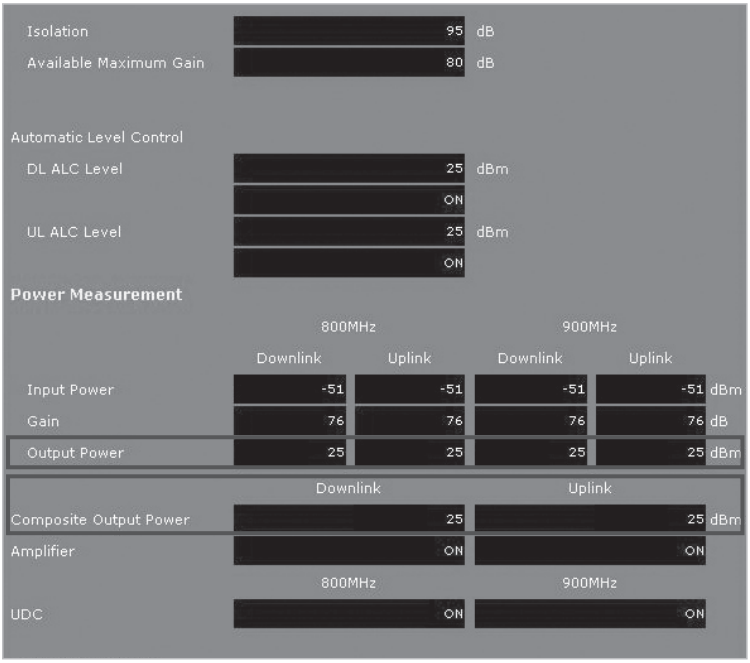


10~20 seconds

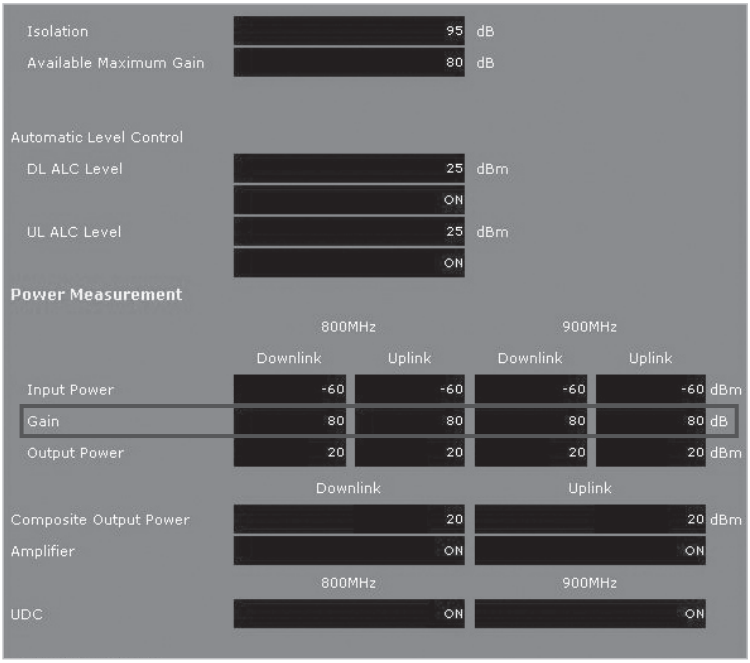


Click IDEN in the left menu.

Result 1 Constant Maximum DL Output Power 25dBm if the DL Input Power ≥-55dBm.



Result 2 Maximum Gain 80dB if the DL Input Power <-55dBm.



After running Easy Setup or Isolation Measurement, Isolation is displayed with “95” when the isolation is higher than 95dB, or it is displayed with the actual when the isolation is lower than 95dB.

•**Automatic Level Control**: Type under 25 and then click **APPLY** and **ON**.
[Example]
For the repeater with 25dBm maximum output power, 80dB maximum gain / 30dB gain control range, → If the signal -45dBm and the ALC is set as 25dBm the gain will be 70dB to adjust to the output power.

If the input signal is -60dBm, the output power will be 20dBm by the limitation of the maximum gain even though the ALC is set as 25dBm.

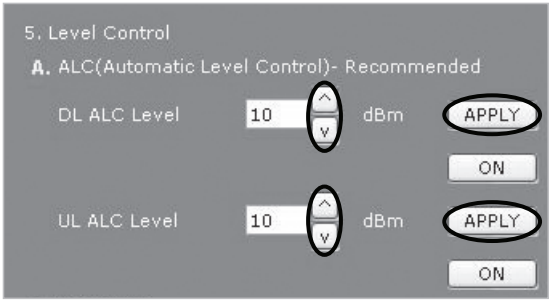
• **Automatic Shutdown**: Type the desired values for **dBm**, **seconds**, and **times** and then click **APPLY** and **ON**.(e.g. 28dBm, 3seconds, 10times)
[Example]
For the repeater with 25dBm Maximum Output Power, 80dB Maximum Gain / 30dB gain control range, Assuming **ASD Level: 28dBm**, **ASD Time: 3seconds**, **ASD Iteration: 10**.

If the output power is 28dBm(ASD LEVEL) and higher, the repeater will shutdown for 3 seconds(ASD TIME). If the shutdown occurs 10 times (ASD COUNT), the 10th shutdown will be permanent.

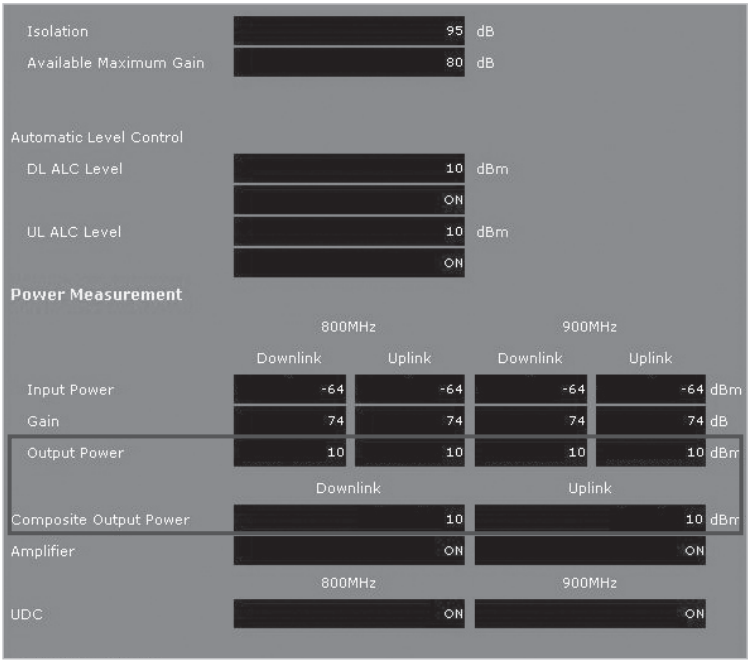
Solution 2. DL Output Power < Max. 25dBm

Step 1A Repeater **Step 1** through Step 6.

Step 2A Change the level at **Automatic Level Control** and click **APPLY**.



Result Constant output power set as the ALC level.



Solution 3. Fixed Gain [Not Recommended]

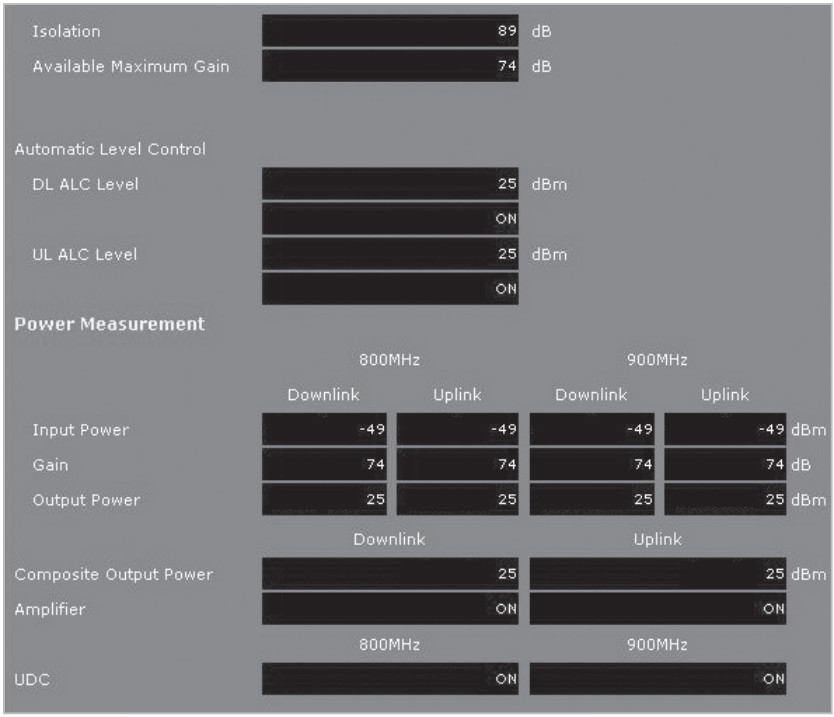
Step 1B Repeat **Step 1** through **Step 6**.

Easy Setup will calculate the **Available Maximum Gain** which defines the maximum gain to be setup.

Warning

DO NOT setup the gain higher than the Available Maximum Gain.

Step 2B Read DL Input Power and the gain controlled by Easy Setup.



Step 3B Turn off **DL Amplifier** and **UL Amplifier**.

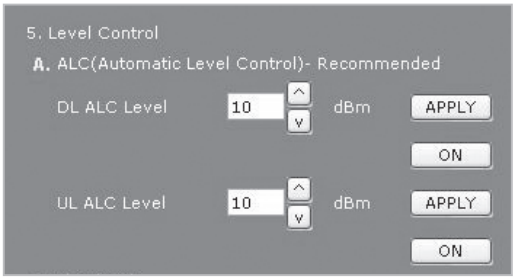
Step 4B **ALC** must be turned off, otherwise, the following message appears.

Step 5B Change **DL Gain** and **UL Gain**.

> **Warning** The gain must be lower than the current value and Available Maximum Gain.

Step 6B Turn on **DL Amplifier** and **UL Amplifier**.

Step 7B Turn on the ALC.



Result DL and UL gain fixed and the output power depends on the input power.