PIXELS

User Manual

WIRELESS KIT

ALL NEW X SERIES

THE CLARITY
PEACE OF MIND

LINE @Pixelscctv

Pixelscctv

www.pixelscctv.com

Statement

Thank you for purchasing our product! This quick user guide will talk about main usages of the product.More information can be found on our website and the help center. This user guide may contain inaccurate content due to hardware and software upgrade.It is subject to change without previous notice.

Safety Caution

1. Please do not put any fluid container on the product.
2. Please use the product in ventilated environment and prevent blocking the vents.
3. Please use included power supply with the product to prevent damage to the product.
4. Please use the product under its standard working temperature and humidity. (advised in this manual or distributor's website)
5. Dust on PCB may cause short circuit.It is suggested to clean the dust on PCB timely to make the product work properly.
6. Please obey the regulation and policy in your country and area during the installation of this.

Out Of Box Audit

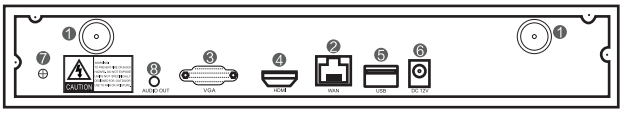
After receiving the product,please check all products and accessording to distributor's Package Includes information.If any is missed or damaged,please contact the distributor.

Packing list		Quantity
S/N	Item	
1	Wireless NVR	1pcs
2	DC 12V2A power supply (for NVR)	1pcs
3	User manual	1pcs
4	Wireless IP Camera	4/8(4/8CH)pcs
5	DC 12V1A power supply(for IPC)	4/8(4/8CH)pcs
6	Antenna Extension Cord	1/2(4/8CH)pcs

Before Installation

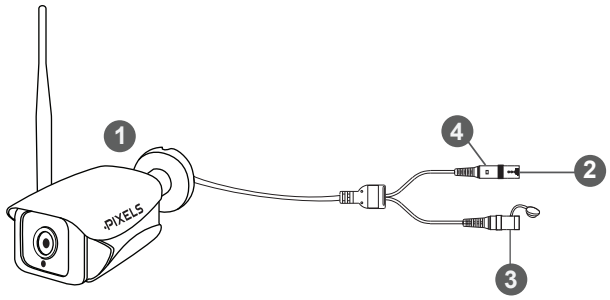
This product may require cabling , we suggest to test all products & parts before installation and cabling.

NVR



1. Wireless Antenna Ports:Double antennas to Wierless range;
2. WAN Port:Connect your NVR to Internet;
3. VGA Port:For viewing on VGA monitor;
4. HDMI Port:For viewing on HDTV;
5. USB Ports:For mouse and backup;
6. Power Input

IPC

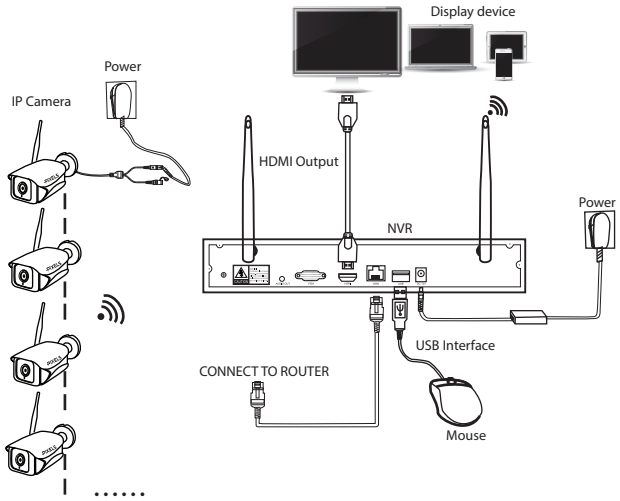


IPC with RJ45 connector

1. Wireless antenna:Wireless connection with NVR
2. DC Port: Input power 12V 1A;
3. RJ45 Port : For matching code and wired connection between IPC and NVR. Anyway, there is range limitation for the wireless signal from NVR. When cameras are out of this range, they can't be connected to NVR wirelessly. Then users can use network cable to connect cameras and NVR.
4. Status light:
   Unbright: IPC system is not ready or abnormal
   Flash: IPC is in the code-matching state
   Long time bright :IPC and NVR have been coded, the connection status is normal
   Slow Flash : IPC is coded with the NVR, but the connection is disconnected
   Note: In night vision mode, the device is normal for 5s, the indicator light will be turned off to prevent light interference.

Installation Instruction Of Wireless NVR KIT

Note:
Wireless NVR can't be connected to Wireless router wirelessly at present. They can be only connected by network cable.



Setup The System

This system is standalone with embedded Linux Operating System in the NVR. Just like a desktop PC, need to hook a screen to the NVR to enter the OS. Any TV , monitor with VGA or HDMI input should work for it.

1. Install antennas for cameras and the NVR;
2. Connect a screen to the NVR via its HDMI or VGA port(HDMI and VGA cable not included);
3. Plug the NVR to power(use bigger 12V 2A power adapter;
4. Plug cameras to power(use smaller 12V 1A power adapters);
5. Within seconds, you should see camera's images on the screen;
6. Plug the mouse(included)to an USB port on back of NVR. You shall then be able to operate on the system.

In the OS you can find fullest functionalities including live view, record, playback, video backup and all settings.
Default ID: admin Password: none (means leaving the password empty, just click login).
Tips: To protect your privacy, please set your password at earliest convenience.
Right click the mouse→Go to System Setup→System Admin →User Management to set password.

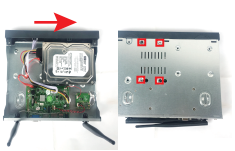
HD Install

The system may not include hard disk depending on the kit you selected. the NVR works most 3.5" SATA HDD or 2.5"SATA HDD

1. Unplug your NVR from power,unscrew and remove the top cover.

2. Connect the SATA power and data cables from the NVR to the corresponding ports on your HDD (as shown).

3. Holding the hard drive and the DVR ,gently turn it over and line up the holes on the hard drive with the holes on the NVR. Using a phillips screwdriver,screw the provided screws into the holes and assemble the cover.



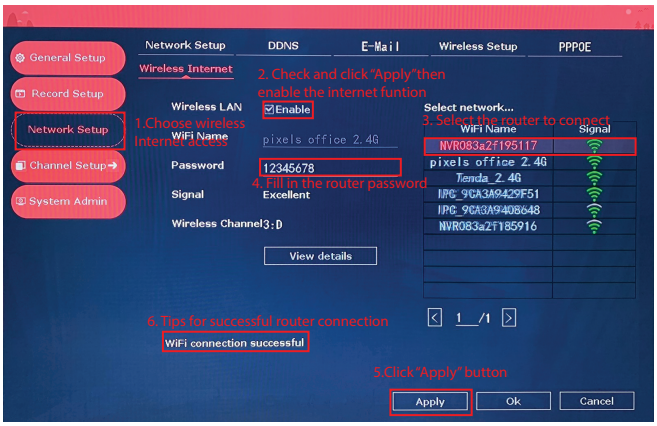
Note: New HDD have to be formatted before recording.
To get better Wireless signal, it had better place the NVR in open area and high position.

Network Setup

Wireless NVR supports wired internet and wireless Internet two ways to access the Internet (supported by some models). The two Internet access modes are set as follows:

Wired internet access: Connecting NVR with network cable to the router will automatically obtain network settings for automatic internet access. When the network cable is plugged in, NVR will give priority to wired internet access.

Wireless internet access: Right mouse button -system settings-in the network settings interface, if "wireless internet access" option is in the lower left corner, indicating that the model supports wireless internet access, and can set wireless internet access according to the figure below. After connecting to the network, you can use mobile app to add cloud ID for remote monitoring.



Record Setup

The factory setting defaults to full-day recording. If you need to customize the recording type, you can refer to the following settings:

1. **Time Recording:** Setup period of time of recording on NVR GUI. Right click mouse →System Setup→Record Setup→Record Plan. Click "Time" and put mouse icon on the upper left corner (for example "1" as picutre shows), press and drag the mouse to the right to choose the time. The list will turn to red.
2. **Motion Recording:** Only detect motion and then start recording. Right click mouse →System Setup→Record Setup→Record Plan. Click "Motion" and put mouse icon on the upper left corner (for example "1" as picutre shows), press and drag the mouse to the right to choose the time. The list will turn to green.
3. **Alarm Recording:** Right click mouse→System Setup→Record Setup→Record Plan. Click "Alarm" and put mouse icon on the upper left corner (for example "1" as picutre shows), press and drag the mouse to the right to choose the time. The list will turn to yellow.

Note: Users can setup any period of time they want, for example 0:00:00-23:59:59, That's 24 hours*7 days recording. When NVR detects hard disk, the default setting will be 24 hours*7 days recording.

Video Playback

Steps: Right click mouse in main menu→Video playback→choose date, channel, record mode→click Search→then can view playback file.

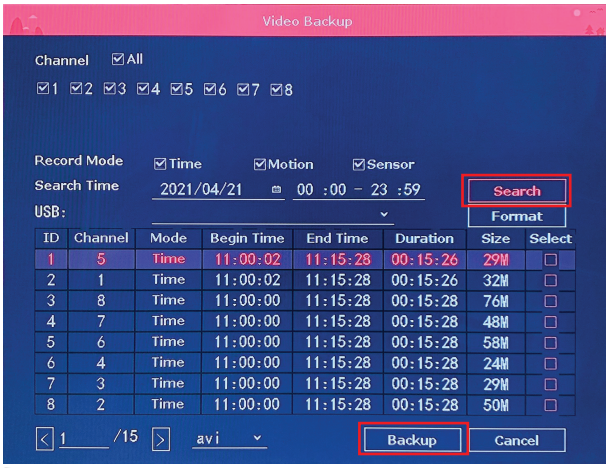
Warm prompt:

1. Illustration for playback button: ▶ play, ⏸ pause: ⏩ fast forward x2,x4,x8;
2. **Play file:** Choose the recording file in file list, as number "1" shown in picture. Choose one of the recording, click "play" to play to recording file;
3. **Video backup:** Choose the recording file in file list, as number "1" shown in picture. Insert the U flash disk, click "video backup" to backup the file;
4. **Timeline:** click "date" and "time" at left bottom to check the timeline of recording, show number "2" shown in picture;
5. On the timeline with recording file, left click the mouse, then can playback the file.

Video Backup

Use U disk to copy video, so easy and convenient !

1. **2 USB port:** Plug U flash disk into the USB port of NVR. Right click on main menu→video backup→choose backup channel→choose video mode→setup searching time→search →choose recording file on the list→video backup .
   (support 32G U flash disk at max. Recording file is packed one hour per time.)
2. **1 USB port:** Right click on main menu→video backup→choose backup channel→choose video mode→setup searching time→search→choose recording file on the list→video backup, insert U flash disk within reminding 1 minute, then the system will backup recording file to U flash disk.



View On Mobile

1. APP Download and Installation

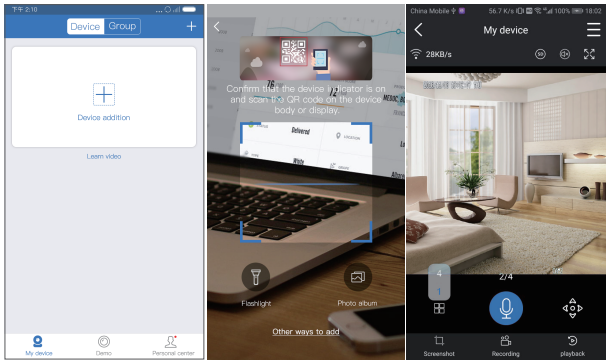
Users can search "Pixels HD" on APP store or on Google Play, or scan the QR code below to install the APP.

Note: For IOS system, it requires IOS 8.0 version or above. For Android, Android 4.4 or above.

Add the NVR system to your APP device list

Run " Pixels HD" app, log in your account → click "+" to scan the device ID QR code to add the device (find the ID number in the NVR network settings, or click the lower right screen), device description (my device name), user name (default user name is admin) and password (default password is empty) → submit your add device form → click device to start previewing video.

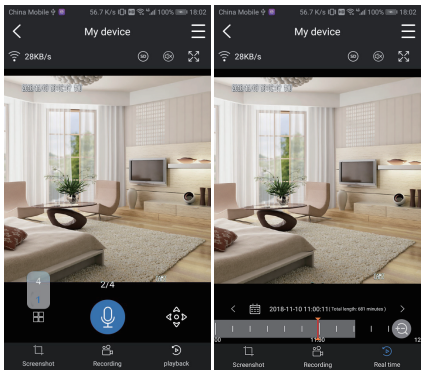
Tips: If you've set a password on your NVR system, please update your password on APP to view.



Playback On Mobiles

In the Pixels HD APP, while viewing live video of the system, click Playback, you will enter the remote playback menu. The APP automatically playback camera 1, you can switch channels the CH.

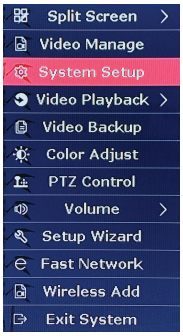
Tips: Videos in playback are HD@real time which requires very good transmission condition. We suggest to playback in LAN. Remote playback out of LAN may not 100% work due to connection &network condition.



MENU-DO What

Menu bar

Click right button you can enter the main menu; click right button again you can exit the current menu or return.



- Split screen: Change status of live view. You can choose to view multiple cameras or any single camera.
- Video Manage: Manage IP cameras and NVR channels.
- System setup: All system settings.
- Video playback: Playback recorded videos.
- Video backup: Backup recorded videos.
- Color adjust: Adjust the image setting of each camera.
- PTZ Control: Control or set up camera(PTZ camera only).
- Volume: Adjust volume of audio cameras(works only for audio cameras).
- Setup Wizard: Step by step guide of 1st time general settings.
- Fast Network: Shortcut to network settings.
- Wifi add: Add IP cameras into NVR channels wirelessly.
- Exit System: Logout, reboot, close screen output and shut down the system.

System setup

Click right button→Choose System setup; you then shall enter the menu that enables you to do all settings related to this system.

- General setup
  (This enables you to set)
  Language
  Time
  Display resolution
  HDD informaion
- Record setup
  (This enables you to set)
  Record plan for each channel video detection
- Network setup(This enables you to set)
  All network related settings.
- System admin
  (This enables you to set)
  System version
  System maintenance including system upgrade
  User and password management
  Restore to default settings
  System log
- Channel setup
  (This enables you to set)
  Manage channels and cameras

Add Wireless IP Camera

Step 1: Plug NVR and cameras to power, after NVR start, right click mouse →Wireless add→match-code interface, NVR will search camera under matching code model automatically.

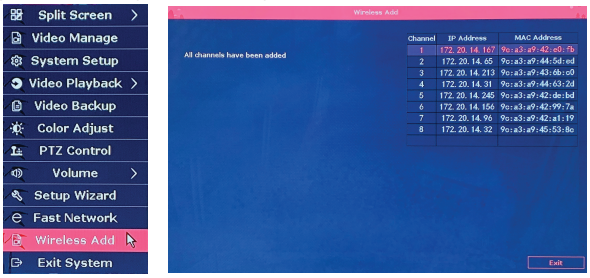
Step 2: Wireless IP Camera has two kinds, including camera with RJ45 connector and camera without RJ45 connector, their way to match code as below:

① For camera with RJ45 connector, after start, use network cable to connect with NVR, match code automatically, no need to restore.

② For camera without RJ45 connector, after start, hold the bottom line of camera for 5 seconds to get into match code mode, it will match code automatically, no need connect network cable.

Step 3: When you can find IP address of camera on screen, matching code complete, click "Exit" to finish.

Notes: For camera without RJ45 connector, its process of getting into matching code will last 10 minuets. After 10 minuets, please restore camera to get into matching code model again.



Expand Wireless Coverage

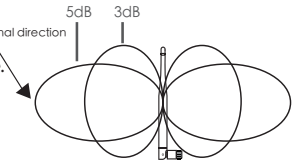
Wireless connection is simple and convenient, but wireless is not everything! Because of the wireless characteristics, in some complex scenarios, there is a signal attenuation situation after passing through obstacles. By placing the antenna reasonably, using antenna extension cable, auto repeater, and camera cascade, the four methods can bypass obstacles and extend the signal transmission distance.

Note:

1. The wireless repeater and repeater cannot enhance the signal strength of thewireless NVR kit, but can extend the distance of the signal relay or turn;
2. Only when the repeaterd and repeaterd cameras are properly placed can the purpose of increasing the wireless transmission distance be achieved;
3. Wireless repeater, repeater and 3m signal extension cord are three ways toincrease the coverage of wireless signal, which can be selected and used according to the actual scenes;
4. Manual repeater settings need to ensure that the wireless connection is unblocked In order toensure thesuccess of the setup, it is recommended to determine the repeater solutionaccording to the actual use scenario, and place the camera near the NVR and set the repeater before installing the camera.

Reasonably adjust the antenna and optimize the signal radiation direction

As can be seen from the bar antenna gain chart as shown on the right, the signal coverage of the antennais similar to anapple. The antenna is located in the center of the apple,and the signal around the antennais strong. The upper and lower ends of the antenna are recessed, and the signal is weak.

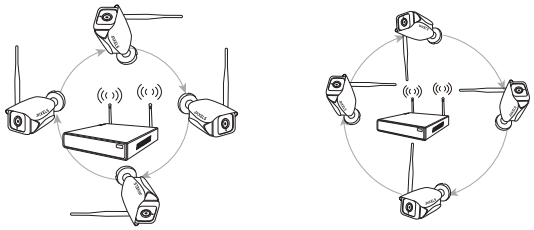


Relationship between rod antenna gain and coverage

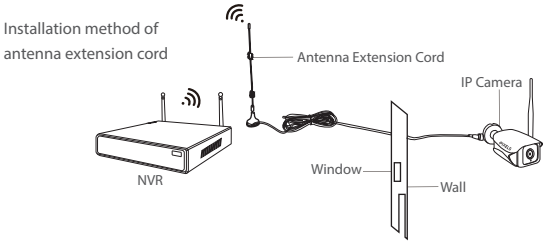
According to the signal transmission characteristics of the antenna, in order to ensure the optimal image transmission effect of the wireless NVR Kit, it is required:

1.The antennas of the NVR and IPC should be placed in a high and open place, and not near the walls, metal, glass and other obstacles, which will affect the signal's outward divergence.

2. The antenna of the IPC should be placed in parallel with the NVR antenna as much aspossible so that the respective maximum radiation direction angles are opposite to formthe maximum signal coverage, as shown in the figure below.



Use antenna extension cord to reduce wall penetration and improve signal



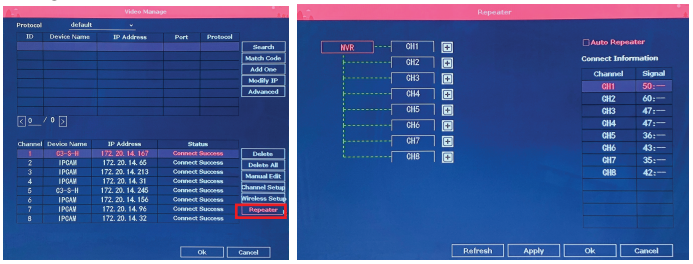
Notes: When a camera shows a weak signal due to wall blocking, you can remove the original antenna, replace the antenna extension cord, and drill a hole in the wall to pass the antenna extens ion cord through the wall or bypass the wall , Just place it in a place where it has strong signal!

Use the camera repeater or repeater reasonably to make the signal relay or turn to extend the wireless distance

Auto repeater is the cascading between cameras and cameras, and wireless repeater is the cascading between cameras and repeaters. When the position between the camera and thecamera cannot be cascaded in an actual scene, it is a good choice toplace a sensorless repeaterbetween the video recorder and thecamera.
(The packaged product does not include a wireless repeater)

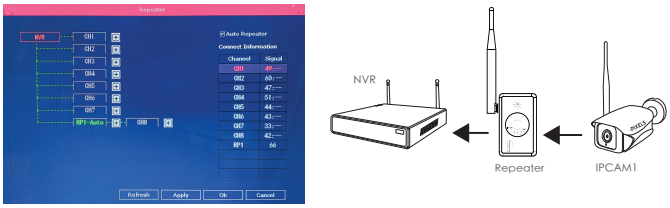
● Description of repeater setting interface

Repeater supports both auto repeater and manual repeater. Right click mouse -Video management-Repeater settings, Enter the repeater settings interface. On this page, you can view the repeater and repeater topology diagrams, and set the repeater. In the interface, NVR indicates this wireless NVR, CHx-Auto indicates cameras that support auto repeater, CHx indicates cameras that support manual repeater only, x indicates camera channel number; RPx-Auto indicates repeater that supports wireless repeater, router indicates a repeater that only supports manualrelay, and x indicates the serial number of the repeater. There is an "Auto repeater" switch in the upper right corner of the repeater setting interface. It is off by default and can be turned on by the user according to actual needs.



● Wireless repeater use

When the repeater and camera on the repeater setting interface display "RPx-Auto" and "CHx-Auto", the repeater and camera support wireless repeater. The wireless repeater does not need to be set. If the camera CH1 is too far away to connect to the NVR, you only need to place a wireless repeater at a reasonable position between the camera and the recorder, as shown in the figure below:



Note: To use a wireless repeater, the repeater must first be paired to the wireless NVR. Press and hold the wireless repeater for 10 seconds. When the NVR status light flashes quickly, it will automatically pair with the NVR without any sense when approaching the wireless NVR. After successful pairing, the NVR status light is always on.

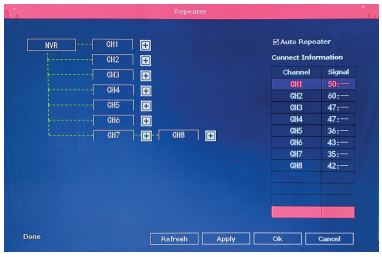
● Auto repeater use

When "CHx-Auto" is displayed on all camerasin the repeater setting interface, the cameras support the automatic repeater function.Check the "Auto Repeater" in the upper right corner and click the "Apply" button below to enable the auto repeater function. After the auto repeater function is turned on, when thesignal of individual cameras is not good, it will automatically find the cameras with nearby signals, select the optimal channel, and repeater automatically without user settings. As shown inthe figure below,CH1-Auto automatically repeater to CH2- Auto:

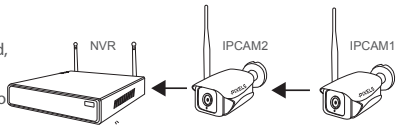
● Manual repeater use

When the auto repeater performance is not perfect, if the customer needs, you can set the manual repeater yourself. All cameras and repeaters support manual repeater function. As shown in the following figure, cascade IPCAM1 to IPCAM2 as an example:

1. First uncheck the "Auto Repeater" switch in the upper right corner of the repeater setting interface, and click the "Apply" button below to turn off the auto repeater.
2. IPCAM1 and IPCAM2 are plugged and play.Click the "+" sign behind channel CH2, select camera channel CH1, click Apply to make the settings effective, and then click the Refresh button to update the repeater relationship diagram to see if the settings are successful.



3. To delete repeater , move the mouse over the CHx (x is the channel number) to be deleted, left click mouse to delete, and then click the "Apply" button to confirm the deletion.



Warning

Notes:
Device will not in guarantee if caused by below reason:

1. Accident;negligence;disaster;mis-operation.
2. Do not conform to the environment and conditions,such as power improper,working temperature too hight or too low, lightning stroke.ect.
3. Ever be maintained by other center which not belong to the real factory.
4. Goods already sold more than 12 months.

FCC RADIATION NORM

FCC

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, and (2) this device must accept any interference received,including interference that may cause undesired operation.

FCC Compliance Statement

These limits are designed to provide reasonable protection against frequency interference in residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed or used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in television reception, which can be determined by turning the equipment off and on. The user is encouraged to try and correct the interference by one or more of the following measures:
•Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and the receiver.
•Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
•Consult the dealer or an experienced radio/TV technician for help.

CAUTION!

CAUTION!

The Federal Communications Commission warns the user that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested andfound to comply with the limits for a ClassB digital device, pursuant to part 15 of theFCC Rules. These limits are designed to providereasonable protection against harmfulinterference in a residential installation. This equipment generates,uses and can radiateradio frequency energy and, if not installedand used in accordance with the instructions,may cause harmful interference to radio communications. However, there isno guarantee that interference will not occurin a particular installation. If this equipmentdoes cause harmful interference toradio or television reception, which can bedetermined by turning the equipment off andon, the user is encouraged to try to correctthe interference by one or more of the followingmeasures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipmentand receiver.
—Connect the equipment into an outlet on acircuit different from that to which the receiveris connected.
—Consult the dealer or an experienced radio/TV technician for help.