upper arm blood pressure monitor

User manual

(Apply to：Q06、Q06B)

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Version: A/0

About this manual

The manual mainly introduces the installation and application method of upper arm blood pressure monitor.Users should read carefully before application (include warnings, contraindications and notes).

Manufacturer

Shenzhen Hingmed Medical Instrument Co., Ltd.
Manufacturing address: 4th Floor, Zhonghangfeixiang Building, NO. 371, Guangshen Road, Baoan District, Shenzhen, People's Republic of China
Tel: +86 755 23730601
Fax: +86 755 23730602
Post code: 518102

After-sales service

Company: Shenzhen Hingmed Instruments Co., Ltd.
Address: 4th Floor, Zhonghangfeixiang Building, NO. 371, Guangshen Road, Baoan District, Shenzhen, People's Republic of China
Tel: +86 755 23730601
Fax: +86 755 23730602
Post code: 518102

European Representative

Company Name:Wellkang Ltd
Company Address: The Black Church,St.Mary's Place,Dublin 7,D07 P4AX,Ireland
Tel: +353(1)2542900,+353(1)4433560
Fax: +353(1)6864856
Web:www.wellkang.ltd.uk & www.CE-marking.eu
Email: AuthRep@CE-marking.eu

Version Information

This manual may upgrade due to software upgrading. User will not be notified further.

- Version: A/0
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Software version:V1

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Table of Content

1.Introduction

1.1product feature

Thank you for purchasing the HINGMED upper arm blood pressure monitor.This monitor can be used by multiple users,This blood Pressure monitor use the oscillometric method of blood pressure measurement.It has some functions that measure the blood pressure and display the result.When measuring the blood pressure,the user need to wear the cuff on the upper arm.

1.2Safety Instructions

This instruction manual provides you with important information about the HINGMED upper arm blood pressure monitor.To ensure the safe and proper use of this monitor,Read and UNDERSTAND all of these instructions,If you do not understand these instructions or have any questions,contact +86 755 23730600 before attempting to use this monitor,For specific information about your own blood pressure ,consult with your physician.

1.3Intended Use

This device is a digital monitor intended for use in measuring blood pressure(SYS and DIA) and pulse rate.
Environments of use:home healthcare environment
Patient population:Adult

1.4Important Information

Read the Important safety Information in this instruction manual before using this monitor.Follow this Instruction manual thoroughly for your safety. Keep for future reference.For specifies information about your own blood pressure,consult with your physician.

1.5 Consist of blood pressure monitor

The upper arm blood pressure monitor consist of main body,cuff,USB wire
Note:The cuff do not replace.

1.5.1 Difference of model

model	Bluetooth
Q06	×
Q06B	√

1.5.2 Performance

Item	Type

Model	Q06B /Q06
Measuring method	Oscillometric method
Range	From 0 to 289mmHg
Pulse range	40-200bpm
Resolution ratio	1mmHg
Accuracy	±3mmHg (pulse rate ±3bpm or ±3% whichever is grater)
Power	DC 3.7V Li-ion
Cuff size	22cm-41cm or 22cm-36cm
Size	L:116*W:58*H:17.8
Operating conditions	T: 5 ℃ -40 ℃ ; RH: 10%-95%; non-condensing,atmospheric pressure(70KPa-106Kpa)
Transport and storage conditions	under the condition of temperature (-20℃- 55℃), RH (no more than 90%) non-condensing and atmospheric pressure (70KPa-106Kpa)
Expected service life	Five years

2 Important safety information

2.1Warning

7.9.2.1DO not service and maintenance while the ME equipment is in use

7.9.3.1Do not modify this equipment without authorization of the manufacturer.

Always consult with your doctor.self-diagnosis of measurement results and self-treatment are dangerous.

People with sever blood flow problems or blood disorders,should consult a doctor before using the device as cuff inflation can cause internal bleeding.

Do not disassemble the device and arm cuff

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* Please do not measure the arm that is being injected with an intravenous drip or a blood transfusion, otherwise it could cause an accident.

2.2Caution

7.9.2.1The patient is a intended operator

***All of the function of the medical device can safety use.**

7.9.2.2*Do not use a mobile phone or other devices that emit electromagnetic fields,near the medical device,this may result in incorrect operation of the medical device.

7.9.2.4* if the device will not be used for three month,please recharge every three month

***If the device will not be used for six month or more ,please remove the battery.**

***7.9.2.14please use the adapter which output DC 5V 2A to charge the device**
When the device start inflating may have a little uncomfortable.
Do not leave the device unattended with infants or person who can express their consent.
Do not apply strong shocks and vibrations to or drop the device and arm cuff.
Do not take measurements after bathing,drinking alcohol,smoking,exercising or eating.
Do not wash the arm cuff or immerse it in water.
Do not connect this device with other device,it maybe cause a potential damage.

*Three hundreds of discharge cycles after which a rechargeable battery needs to be replaced

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Please use the machine in the following use environment and storage place, if it is stored or used outside the specified temperature and humidity range (storage conditions: temperature -20℃ ~ +55℃, relative humidity no more than 90%;Operating conditions: Temperature +5℃ ~ +40℃, relative humidity 10%-95%), the system may not achieve the claimed performance specifications.

* Places that don't splash water

* Do not put in hot, humid, direct sunlight places, places with less dust, do not put in places containing salt and sulfur, etc.

* Place in a stable place where there is no tilt, vibration, impact (including handling), etc

* Patients with anticoagulants or with blood clotting disorders may get blood clots in the cuff even if it is worn in the correct position during blood pressure measurements.

* If the cuff fails to inflate within two and a half minutes, instruct the patient to remove the cuff manually. Prolonged excessive inflation may lead to blood obstruction and make the patient feel uncomfortable.

* When there is a common arrhythmia, the device fails to meet the claimed performance requirements

* Any blood pressure measurement is influenced by the subject's posture and his/her physical condition

* If you move or speak while taking a measurement, your arms are not in the right position, the machine is not on the level, or the machine shakes

* For accurate measurements, keep your back straight and sit correctly.

Please relax and keep quiet.

* In case of equipment failure, the error code will be displayed in the format of "EC XX", see the section on Common Failures for details.

* State that the blood pressure measured should be explained by a professional.

The product is not intended for newborns.

*The specifications and labels of this product meet the requirements of EN1060-1 and EN1060-3

*Frequent inflating can lead to blood clots and discomfort

*Too Frequent measurements may result poor circulation or bruising

*Do not put the cuff over a wound, and it will cause further injury

*If there are arterial or venous shunt tubes on the arm, please follow the doctor's instructions before use, otherwise it may cause physical discomfort

*People who have had mastectomies may be unwell or have mis-measured results

*Do not use other medical electrical equipment on the blood pressure measuring arm

*Please confirm (for example, by observation of the relevant limb) whether this product is available No lasting damage to the patient's blood circulation.Suffering from blood circulation disorder,For patients with blood diseases, please use under the guidance of a doctor.Acute internal bleeding may result from compression of the arm during measurement.

*While in use with a patient,Do not service and maintain the device.

* The device compliance with IEC 60601-1-2,keep away other HF device.

*Please assure that connect The part’s voltage of input or output compliance with IEC60601-1 the requirement of safe extra low voltage,and the part of input or output forbid connecting other device.

* The manufacturer responsible for After service ,the people with unauthorized do not repair calibration the device.

*the time from switching “ON” until the device is ready for NORMAL USE ,That time less 10s.

*when the ambient temperature is 20 ° C ,the time that the device to warm from the minimum storage temperature between uses until the device is ready for its intend use need one hour;

*when the ambient temperature is 20 °C,the time that the device to cool from the maximum storage temperature between uses until the device is ready for its intend use need one hour

*Three hundreds of discharge cycles after which a rechargeable battery needs to be replaced

* Please put the device keep away the children and pet

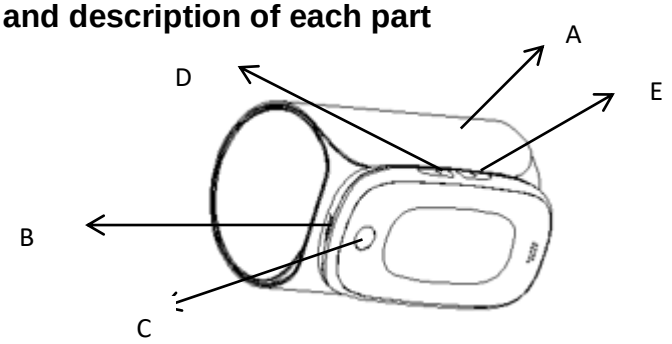
The list of device that can potentially cause interference problem,eg. Microwave oven;

3. Product structure and operation principle

3.1The component of product

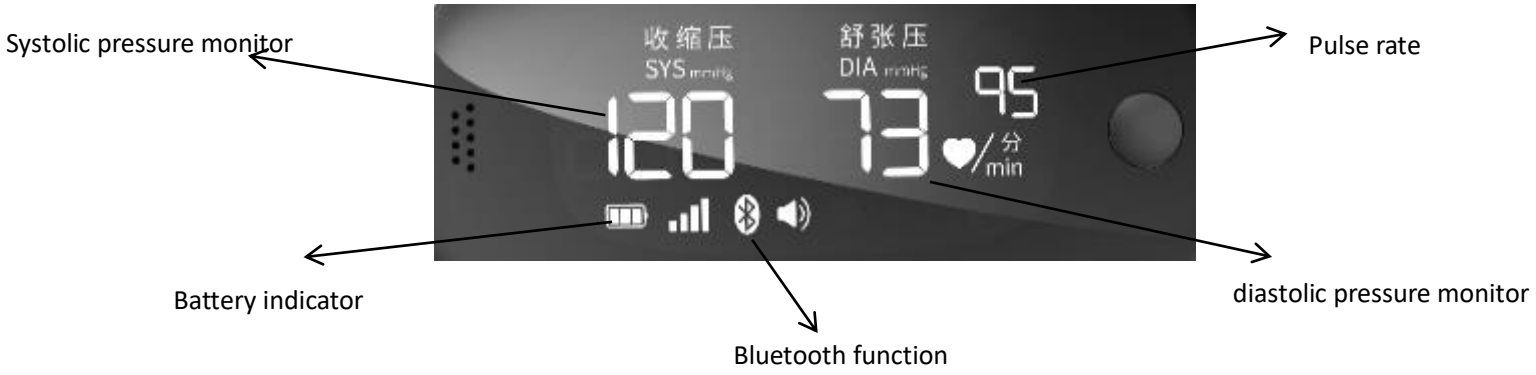
No.	Compment	Count	size
1	Main body	1pcs	
2	USB wire	1pcs	1M
3	Cuff	1pcs	17-41cm or 17-36cm
4	User Manual	1pcs	

3.2Name and description of each part



NO.	**description**	**NO.**	**description**
A	Cuff	C	Start/Stop Button
B	USB inlet	D &E	The button of View the record

3.3 Display



3.4Mark content and meaning

Symbol	Description	Symbol	Description

	CF type applied part	SN	Series number
	Manufacturer		Valid date
	Keep dry		This way up
	Fragile		Complying with WEEE standard
	Stacking limit by number	+55℃ -20℃	Temperature limitation
	Refer to user manual		Date of manufacture
	General warning sign		General Prohibition sign
	General Mandatory action sign	IP22	2：protect against solid foreign Protected against solid foreign objects of 1 2,5 mm and greater 2：Protection against vertically falling water drops when Enclosure tilted up to 15°
	Atmospheric pressure limitation		

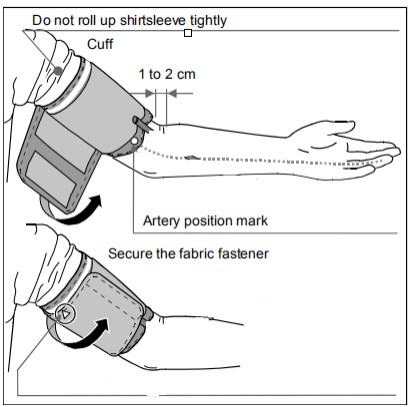
4.Blood pressure measurement

4.1prepration

(1) Sit on a chair with your feet flat on the floor,place your arm on the table so the cuff level of your heart,keep still and do not talk during measurement.

(2) Please press the "start/stop" button to wake up the device and the time is displayed .

(3) Wear the cuff ,refer to the right picture.



4.2 Taking a measurement(Apply to Q06B & Q06)

(1)press the "start/stop" button,the cuff start to inflate automatically,increasing number on the display ,remain still and do not move your arm and until the measurement process is complete.

(2) When the measurement is complete,your cuff completely defeat, your blood pressure and pulse rate are displayed and broadcast.

4.3Taking a measurement by the App (Apply to Q06B)

(1)Login the APP,press the "start/stop" button on the Main page,,the cuff start to inflate automatically,increasing number on the display and APP ,remain still and do not move your arm and until the measurement process is complete.

(2)When the measurement is complete,your cuff completely defeat, your blood pressure and pulse rate are broadcast and displayed on the device and the APP .

Notice: To stop the inflation or measurement push the Start/Stop button,the monitor will stop inflating and start deflating ,and will turn off .

5.Error message

When an error occurs, the screen will display the following error code:

Error code	Cause	Remedy
EC01	Cuff not applied correctly	Remove the cuff ,read “taking a measurement” Wait 2-3minutes Take another measurement
EC04	Weak signals, which can be measured when the pulse is too weak or when the cuff is too loose	Make sure that the measured part is in good contact with the cuff and that the arm circumference is within the measured range
EC06	Excessive motion may be measured when the signal contains motion spurious or too much interference	Pay attention to avoid talking, fidgeting and measuring again during measurement
EC07	Overpressure was measured, with cuff pressure exceeding 290mmHg in adult mode	Wait 2-3minutes Take another measurement

EC09	The measurement timeout, in adult mode, exceeded 120 seconds	Wait 2-3minutes Take another measurement
EC 11	Push the “start/stop” button to Stop measuring	Push the “start/stop”button to take another measurement
EC26	Battery is worn	Please recharge
If there is other error code ,please contact customer service.		

6.maintenance

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Note: * Sphygmomanometers and accessories need not be sterilized, but should be kept clean. If there is pollution, it should be promptly cleaned before disinfection.

*Suggestion that clean the device by every month;

To protect the device from damage,please observe the following:

Do not subject the device to extreme temperature,humidity,moisture or direct sunlight.

Do not wash the arm cuff or immerse it in water.

The arm cuff of the device is not detachable

7.4.7(1) Before cleaning the sphygmomanometer (include cuff), it is necessary to turn off the device

(2) Do not use volatile liquids to clean the main body,the main body should be clean with a soft, dry cloth.

(3) use a soft, moistened cloth and soap to clean the cuff

(4) Do not carryout repair the device by yourself,if there is any breakdown ,please conduct with your local authorised distributor or dealer .

Calibration

The accuracy of this blood pressure monitor has been carefully tested and is designed for a long service life.

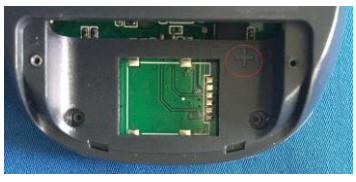
It is generally recommend to have the device inspected every two years to ensure correct functioning and accuracy.please consult your local authorised distributor or dealer.

Replace the battery

-Remove the setting screw as shown on the right

- Use the new battery to replace the old battery

-Place the positive electrode of the lithium battery in the battery slot consistent with the positive electrode of the shell material display



7.Disposal

Disposal of this product and used batteries should be carried out in accordance with the national regulations for the disposal of electronic products

8、Component replacement list

Caution:Please use the component supply by the manufacture ,otherwise might cause the measurement error or injury

NO.	Component	Type
1	Battery	1020mAh，3.7V

9、 Warranty Card

Warranty Card

Product model and SN code：	Name：
Purchase Date：	Address：
Dealer：	Tel：
Postal Code：	Dealer stamp：

The limited liability of guarantee

Hingmed provides the original purchaser the following limited warranty from the date of invoicing.

upper arm blood pressure monitor…… 12 months

Hingmed warrants each monitor to be free from defects in material and workmanship. Liability under this warranty covers servicing of the returning monitor from customer prepaying to the prospective factory (depending on location). Hingmed will repair any defective component(s) or part(s) during the period of this limited warranty.

Should a defect become apparent, the original purchaser should notify Hingmed of the suspected defect; the monitor should be carefully packaged and be prepaid shipped to:

Shenzhen Hingmed Medical Instrument Co., Ltd.
Address: 4th Floor, Zhonghangfeixiang Building, NO. 371, Guangshen Road, Bao'an District, Shenzhen, People's Republic of China
Tel: +86 755 23730600
Fax: +86 755 23730602
Postal code: 518102
Email: info@Hingmed.com

The monitor will be repaired as soon as possible, and be returned by the same shipping method as received by the factory if it is prepaid.

This limited warranty is invalid if the monitor has been damaged due to accidents, misuse, negligence, or maintained by any person not authorized by Hingmed.

This limited warranty contains the entire obligations of Hingmed, exclude other expressed, implied or regulated warranties. Representatives or employees without authorized by Hingmed will assume any further liability or grant any further warranties except as set herein.

7.9.3.3*Hingmed will make available on request circuit diagrams, component part lists, descriptions, calibration instructions, or other information that will assist service personnel to repair those parts of ME equipment that are designated by Hingmed as repairable by after sale SERVICE PERSONNEL .

10 EMC information

This product needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided, and this unit can be affected by portable and mobile RF communications equipment.

Do not use a mobile phone or other devices that emit electromagnetic fields, near the unit. This may result in incorrect operation of the unit.

Caution: This unit has been thoroughly tested and inspected to assure proper performance and operation!

Caution: this machine should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, this machine should be observed to verify normal operation in the configuration in which it will be used

Guidance and manufacture's declaration – electromagnetic emission		
TheDBP-01P DBP-01HP is intended for use in the electromagnetic environment specified below. The customer of the user of theDBP-01P DBP-01HP should assure that it is used in such an environment.		
Emission test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11	Group 1	TheDBP-01P DBP-01HP use RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emission CISPR 11	Class B	TheDBP-01P DBP-01HP is suitable for use in all establishments, other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Guidance and manufacture's declaration – electromagnetic immunity			
TheDBP-01P DBP-01HP is intended for use in the electromagnetic environment specified below. The customer or the user ofDBP-01P DBP-01HP should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete or ceramic tile. If floor are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec	Not applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of theDBP-01P DBP-01HP requires continued operation during power mains interruptions, it is recommended that theDBP-01P DBP-01HP be powered from an uninterruptible power supply or a battery.
Power frequency (50Hz/60Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital

			environment.
NOTE U_T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacture's declaration – electromagnetic immunity			
TheDBP-01P DBP-01HP is intended for use in the electromagnetic environment specified below. The customer or the user of theDBP-01P DBP-01HP should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Conducted RF IEC 61000-4-6	3 V_{rms} 150 kHz to 80 MHz	Not applicable	Portable and mobile RF communications equipment should be used no closer to any part of theDBP-01P DBP-01HP, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d = 1{,}2\sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1{,}2\sqrt{P}$ 80 MHz to 800 MHz $d = 2{,}3\sqrt{P}$ 800 MHz to 2,5 GHz Where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and *d* is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b]

			Interference may occur in the vicinity of equipment marked with the following symbol: 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which theDBP-01P DBP-01HP is used exceeds the applicable RF compliance level above, theDBP-01P DBP-01HP should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating theDBP-01P DBP-01HP.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between

portable and mobile RF communications equipment and theDBP-01P DBP-01HP .

TheDBP-01P DBP-01HP is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of theDBP-01P DBP-01HP can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and theDBP-01P DBP-01HP as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter (W)	Separation distance according to frequency of transmitter (m)		
	150 KHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2.5 GHz
0.01	**0.12**	**0.12**	**0.23**
0.1	**0.38**	**0.38**	**0.73**
1	**1.2**	**1.2**	**2.3**
10	**3.8**	**3.8**	**7.3**
100	**12**	**12**	**23**

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and

reflection from structures, objects and people.

11 FCC compliance statement

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.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and 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.