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Professional 200 Channel UHF Wireless Microphone Systems

Profesionales UHF Sistemas de Micrófono Inalámbrico

Professional Wireless Microphone Systems
PLL Diversity Wireless Systems

USERS MANUAL

FOR PROFESSIONAL UHF WIRELESS
MICROPHONE SYSTEMS:

(4 Mic Systems, 2 Mic Systems, and 1 Mic Systems)

Please read and keep for future reference.

Congratulations on Purchasing an AVTronics Wireless Microphone System!

This product should give you trouble free service throughout it's life. We trust you will enjoy it's performance.

FCC INFORMATION

4 MIC RECEIVER: AVT4MR

Kingdom Inc.

AVT4MR



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 UNDESIRE OPERATION.

TRANSMITTERS:

Handheld	Part #: AVTHHT1	FCC ID: 2AWPDAVTHHT1
Bodypack/Beltack	Part #: AVTBPT1	FCC ID: 2AWPDAVTBPT1

*** CONSUMER ALERT ***

Most users do not need a license to operate this wireless microphone system. Nevertheless, operating this microphone system without a license is subject to certain restrictions: the system may not cause harmful interference; it must operate at a low power level (not in excess of 50 milliwatts); and it has no protection from interference received from any other device.

Purchasers should also be aware that the FCC is currently evaluating use of wireless microphone systems, and these rules are subject to change. For more Information, call the FCC at 1-888-CALL-FCC (TTY: 1-888-TELL-FCC) or visit the FCC's wireless microphone website at www.fcc.gov/cgb/wirelessmicrophones.

NOTE: The manufacturer, distributor, and supplier is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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FEATURES & SPECIFICATIONS

Handheld Transmitter (AVTHHT1)

Specifications

Carrier Wave Frequency Range: UHF 470~505MHz
Frequency Response: 50Hz~18KHz
Working Distance: Nearly 200 feet
Transmitter Power: ~30mW
Display: LCD

Features

Requires 2 AA batteries
IR sync capable

Bodypack / Beltack Transmitter (AVTBPT1)

Specifications

Carrier Wave Frequency Range: UHF 470~505MHz
Frequency Response: 50Hz~18KHz possible with beltack. Actual will depend on mic attached.
Working Distance: Nearly 200 feet
Transmitter Power: ~30mW
Display: LCD
Beltack Jack: 3.5mm / 1/8 inch lockable jack and mini XLR

Features

Lapel mic included
Requires 2 AA batteries
IR sync capable

Receiver (AVT4MR)

Specifications

Carrier Wave Frequency Range: UHF 470~505MHz
Display: OLED
External Wall Wart Power Supply
Output Connectors: Balanced XLR and Unbalanced 1/4 inch (TRS 6.35mm)

Features

IR sync capable
Frequency selection mode
Volume control
Auto scan
Group select

WARNINGS



CAUTION! WARNING!

Risk of harmful electric shock! Do not open the device! Opening may result in serious injury!

Advertencia: Riesgo de un choque eléctrico. No abra el aparato. El abrirlo puede causar serias heridas.

Opening the device may void your warranty.



Do not dispose of this device by putting in the trash.

GETTING STARTED

Step 1: Put 2 batteries into each of your transmitters. The handheld takes 2 AA batteries and the battery compartment can be located by unscrewing the bottom of the handle. The belt-pack takes 2 AA batteries and the compartment can be located by swinging open the door. See diagrams on pages 10 and 11.

Step 2: Attach the two antennae to the back of your receiver. Attach by screwing onto the receiver in the proper location. See picture of your receiver on pages 6, 8 or 9 for help with locating the proper location.

Step 3: Connect your sound system to your wireless microphone system using either 1/4" or XLR cables but not both at the same time. You will need to attach 1 XLR cable for each transmitter that you will be operating.

For all receivers, when opting to use a 1/4" cable (instead of XLR cables) then only one 1/4" cable needs to be used per receiver regardless of how many transmitters you are operating with that receiver.

Note: Generally a cleaner more clear sound can be attained by using XLR cables. We highly recommend the use of XLR cables instead of a 1/4" cable with your system.

Step 4: Plug the wall wart power supply into the back of your receiver and then into an electrical outlet.

Step 5: Power on your receiver using the power switch.

Step 6: Power on your transmitter.

Handheld: Use the power button to power on the device.

Belt-pack: Power on using the button located on the central panel of the belt-pack. Push power button for 3 seconds. See diagram on page 11.

Step 7: Now you must sync your transmitter and receiver to the same frequency or channel. By using the receiver controller on your receiver you can toggle through the various receiver settings and choose the IR sync mode. The receivers allow you to access IR sync mode by simply hitting the button on your receiver that says "IR SYNC".

Note: If you are going to be using more than one transmitter at a time then each transmitter must be set to a different frequency or channel. You can use the receiver controller to select different frequencies (or channels) for additional transmitters. Choose a frequency or

channel for a specific receiver channel and sync the next transmitter to a different frequency or channel than the previous transmitter(s). Refer to the page in this manual that gives instructions for your specific receiver for detailed instructions.

Step 8: Locate the IR sync window on the receiver. Look for the letters IR on your receiver to locate the window. Please see pictures on pages 6, 8 and 9 to help locate the IR sync window location.

Handheld Transmitter:

Point the small IR window on the front of your transmitter facing towards the IR sync window on the receiver at a distance of about one half inch or less. Hold the handheld in this position. When properly aligned the handheld should automatically change frequency to match the frequency of the receiver. See page 10.

Belt-pack Transmitter:

Open the compartment where the batteries are stored. Align the red IR sync window on your belt-pack to that on your receiver to automatically sync the transmitter to the frequency of the receiver. See page 11.

Note: Frequency display can be found on page 10 for the handheld and page 11 for the belt-pack.

Step 9: Make sure the volume knobs on your receiver are turned up to the desired level.

Step 10: Your wireless microphone system should now be operational as long as all your sound equipment is set up properly as well. When you are finished make sure to power off your transmitter and receiver.

For detailed instructions regarding using the IR sync function of your receiver please refer to the IR sync instructions that follow for the specific system that you purchased.

EMPEZANDO

Paso 1: Coloque 2 baterías en cada uno de sus transmisores. El dispositivo de mano lleva 2 baterías AA y el compartimiento de la batería puede ser localizado desenroscando la parte inferior del mango. La caja de la cintura lleva 2 pilas AA y el compartimiento se puede localizar al abrirse la puerta. Vea los diagramas de las páginas 10 y 11.

Paso 2: Conecte las dos antenas en la parte posterior de su receptor. Sujete atornillando en el receptor en el lugar adecuado. Vea la imagen de su receptor en las páginas 6, 8 y 9 para ayudar a localizar el lugar adecuado.

Paso 3: Conecte su sistema de sonido a su sistema de micrófonos inalámbricos utilizando ya sea cables de 1/4" o XLR, pero no ambos al mismo tiempo. Usted tendrá que conectar 1 cable XLR para cada transmisor que va a operar. Para todos los receptores sólo un cable de 1/4" debe ser utilizado independientemente del número de transmisores que se están operando, siempre y cuando no se exceda el número de transmisores que su sistema puede funcionar a la vez.

Note: Generalmente se obtiene un sonido más claro y limpio con el uso de cables XLR. Recomendamos bastante el uso de cables XLR en lugar de cables de 1/4" con su sistema.

Paso 4: Conecte la fuente de corriente de AC en la parte posterior de su receptor y luego a una toma eléctrica.

Paso 5: Encienda el receptor con el interruptor de encendido. Presione el botón de encendido durante 3 segundos.

Paso 6: Encienda su transmisor.

De Mano: Con el interruptor deslizante de dos posiciones deslizándolo hasta llegar a la posición de encendido.

De Cintura: Encienda con el botón situado en la parte superior de el aparato. Pulse el botón de encendido durante 3 segundos. Vea el diagrama en la página 11.

Note: El aparato de mano dispone de un interruptor de tres posiciones que le permite silenciar el transmisor sin apagarlo, deslice el interruptor a la posición a mitad de camino entre el encendido / apagado posiciones.

Paso 7: Ahora hay que sincronizar el transmisor y el receptor a la misma frecuencia o canal. Al utilizar el controlador receptor en su receptor puede cambiar entre las distintos ajustes del receptor y elegir el modo de sincronización IR. El receptor puede permitirle acceder a modo de sincronización IR simplemente pulsando el botón en el receptor que dice "IR SYNC".

Note: Si va a utilizar más de un transmisor a la vez entonces cada transmisor debe ajustarse a

una frecuencia o canal. Usted puede utilizar el controlador del receptor para seleccionar diferentes frecuencias (o canales) para transmisores adicionales. Elija una frecuencia o canal para un canal receptor específico y sincronizar el siguiente transmisor a una frecuencia o canal del transmisor anterior. Consulte la página de este manual que contiene instrucciones para su receptor específico para obtener instrucciones detalladas.

Paso 8: Localice la ventanilla de sincronización IR en el receptor. Busque las letras IR en su receptor para localizar la ventanilla. Por favor vea las imágenes en las páginas 6, 8 y 9 para ayudarlo a localizar la ubicación de la ventanilla de sincronización IR.

Transmisor de Mano:

Apunte la parte posterior del transmisor con

la pequeña ventanilla en la parte posterior del transmisor mirando hacia el receptor dentro de aproximadamente media pulgada de la ventana de sincronización IR en el receptor. Sostenga el aparato de mano en esta posición. Cuando está correctamente alineado el dispositivo debería cambiar automáticamente la frecuencia para que coincida con la frecuencia del receptor. Vea la página 10.

Transmisor de Cintura:

Abra el compartimiento donde se almacenan las baterías. Alinee la ventanilla de sincronización IR de su aparato de cintura a de su receptor para sincronizar automáticamente el transmisor a la frecuencia del receptor. Vea la página 11.

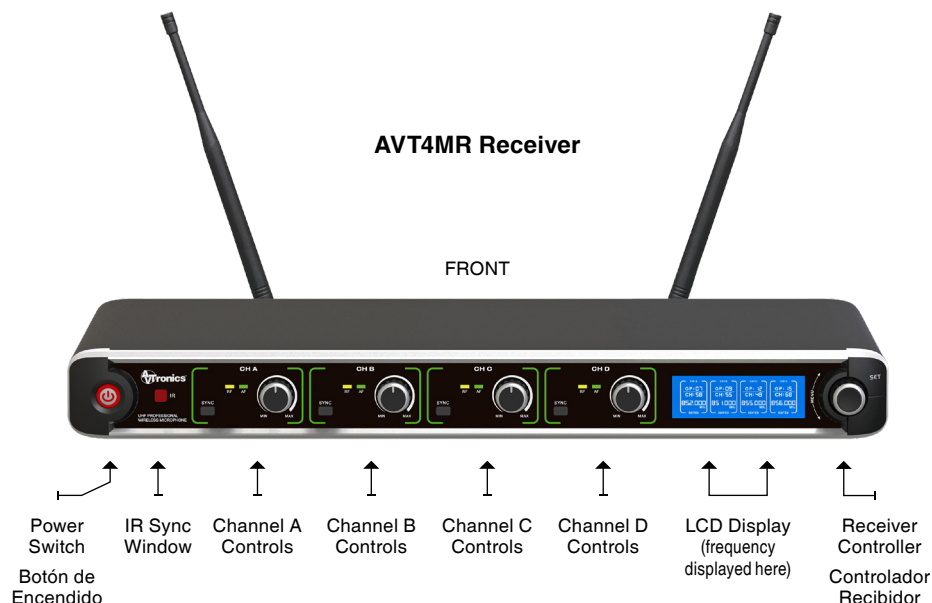
Note: Visualización de la frecuencia se puede encontrar en la página 10 para el aparato de mano y en la página 11 para el aparato de cintura.

Paso 9: Asegúrese de que las perillas de volumen del receptor se suban hasta el nivel deseado.

Paso 10: Su sistema de micrófono inalámbrico ahora debería estar en funcionamiento, siempre y cuando todo el equipo de sonido está configurado correctamente también. Cuando haya terminado, asegúrese de apagar el transmisor y el receptor.

Para obtener instrucciones detalladas sobre el uso de la función de sincronización IR de su receptor, consulte las instrucciones de sincronización IR que siguen para el sistema específico que ha adquirido.

Four Microphone System



Four Microphone System

- Receiver Controller** - Use the receiver controller to toggle through options, select channels (A through D) and set the frequencies of the transmitters.
- Group Select** - By selecting this option via the receiver controller you can select a group of preset frequencies for all 4 of your transmitters/receiver channels. Each transmitter would still need to go through the IR Sync function if not already in Sync.
- IR Sync** - This mode allows you to IR Sync your transmitters individually with your receiver. See the detailed explanation below.

Note: Using Group select will pick four different preset frequencies for each of your transmitters. You will still need to use IR Sync to sync each transmitter with the receiver.

Note: It is possible to use one 1/4" cable to for all 4 channels. However, a cleaner signal may be obtained if you use 4 individual XLR cables. Using XLR cables will also allow the sound man to adjust each of the transmitters sound levels individually when away from the receiver with the use of a mixing board.

Note: It is suggested that the transmitters have at least 3 or more full frequencies of distance between each other to help prevent interference with each other. For example: If the first transmitter is on 471.000 MHz then make sure that the second transmitter is at least on 474.000 MHz or greater distance from the selected frequency of the first transmitter.

Other Functions:

Volume Control - The volume of each channel can be adjusted using the individual volume control knobs.

Further Instructions Regarding IR Sync Mode:

- Step 1.** Make sure all other microphone receivers and transmitters in the room are turned off except for the receiver and transmitter you are trying to sync.
- Step 2.** By using the receiver controller select a receiver channel for which you would like to sync a transmitter and access sync mode. You can use one channel per transmitter. One transmitter can sync to A, the second can sync to B, the third to C, and the fourth transmitter can sync to D.
- Step 3.** After completing the previous step the receiver should now be ready to sync for the channel you have chosen. Now hold the powered on transmitter up to

the receiver with the IR window of the transmitter facing toward the "IR" window on the receiver. See diagram on preceding page to find location on your receiver. Also see pages 10-12 for more information.

- Step 4.** After successfully completing the IR Sync procedure repeat the same procedure for all 4 transmitters choosing a different channel (A, B, C or D) for each transmitter. Each transmitter must be on a different frequency. If you have two receiver channels on the same frequency then change the frequency or "channel" for one transmitter.

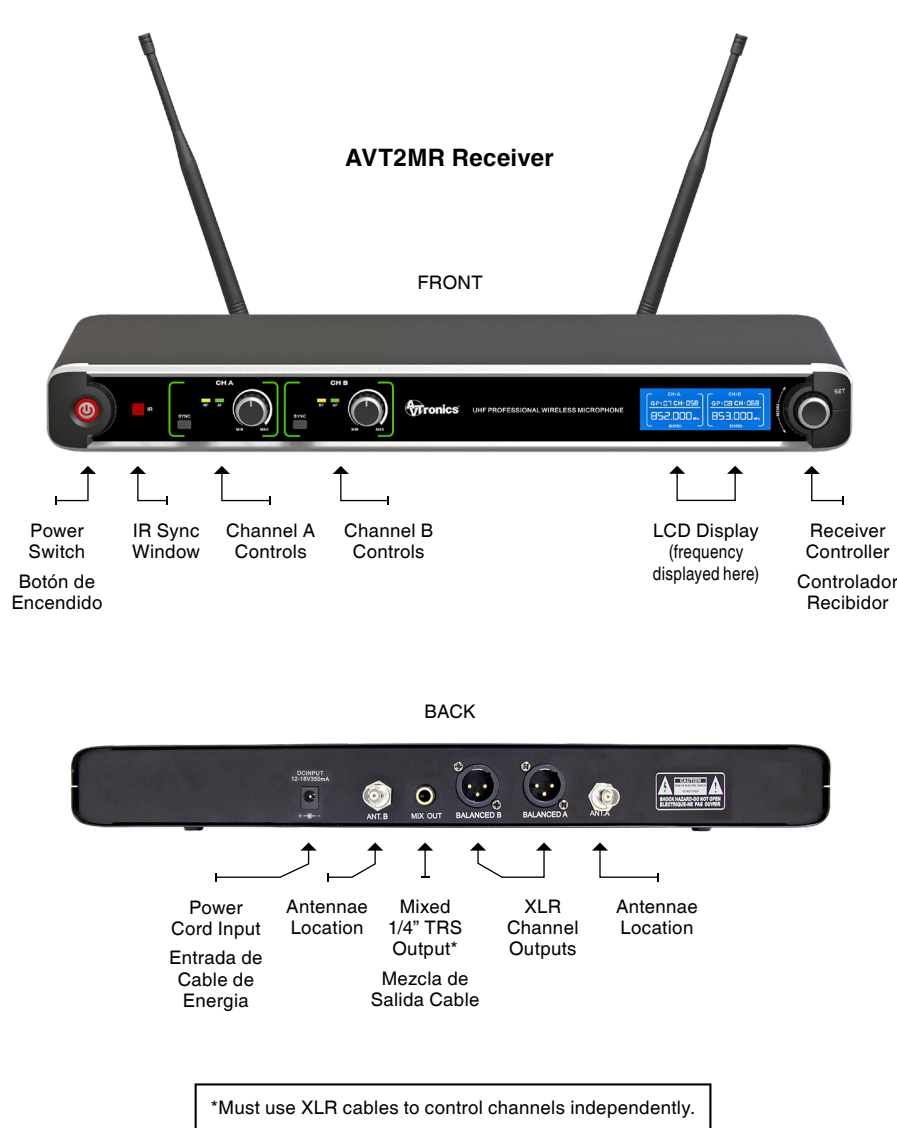
*Must use XLR cables to control channels independently.

Product may differ from photos

Two Microphone System

Note:

Please follow the operation instruction based on the Four Mic System.



Product may differ from photos

One Microphone System

Note:

Please follow the operation instruction based on the Four Mic System.



Product may differ from photos

AVTHHT1 Handheld Transmitter



AVTBPT1 Beltpack Transmitter

Hold power button for 3 seconds to power on.



How to change the AF signal (sensitivity) level.

Press Mode button. When frequency is blinking you can press the "Mode" button again. AF bar will blink. This allows you to set the sensitivity of the mic at different levels (low, medium, high). Usually this should be Medium. It is possible to lower or upgrade the sensitivity.

Note: This is not the recommended way to adjust volume.

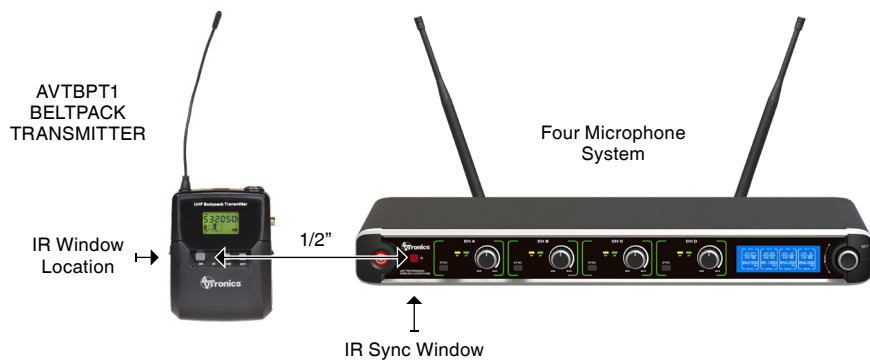
How to set frequency of transmitter without using receiver.

Beltpack: Press Mode button softly. Then use buttons to select desired Frequency when frequency is blinking. Stop using arrow buttons once you are on selected frequency.

Note: You should usually use the receiver sync process to change the frequency of the transmitter. Setting the frequency of the beltack independently of the receiver may result in malfunction.

IR SYNCING

Four Microphone System is shown below. See pages 6-9 to find the IR Sync location for the receiver you have purchased.



IR Window on transmitter (handheld or belt-pack) needs to be within 1/2" of the IR Sync Window on your receiver in order to sync properly. See photo illustrations above.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Receiver - No sound - No lights	- Power button is on the OFF position. - AC power adapter is not plugged in. - Poor connection of AC power adapter.	- Turn on the power button/switch. May need to hold for 3 seconds to power on. - Plug in the AC power adapter. - Check to see if the AC power adapter is loose. Check on the receiver end and wall outlet end.
Microphone - No sound - Lights on	- The transmitter is out of range. - Microphone switch is off. - Microphone volume is turned down. - Batteries in the microphone are not installed properly. - Receiver is not connected to an amplifier, mixer or other sound system. - Microphone frequency is not synched to the receiver.	- Operate the device in the effective range. - Turn on the microphone switch. - Turn up the microphone volume on the receiver. - Put batteries in the transmitter. Make sure the positive and negative ends of the batteries are pointed in the right direction. - Connect a cable from the receiver to a microphone input of a sound system. - Use the IR synch function to synch the microphone with receiver.
Sound - Distorted sound - Feedback - Drop outs	- The microphones are too close together. - Batteries are low. - Microphone volume is too high. - Distortion from other electric wave. - Frequency interference.	- Create distance between the microphones. - Replace the batteries. - Reduce the volume of the microphone. - Move the receiver away from other electric equipment. - Try changing the channel of the microphone. Both transmitter and receiver must match frequencies for operation.
IR Sync Microphone not syncing with receiver	- The transmitter is pointed in the wrong direction. - The transmitter is not being pointed at the right location on the receiver. - Make sure the transmitter is close enough to help align. - There is a second transmitter or receiver already on nearby.	- Make sure transmitter is pointed in right direction. The IR window on the transmitter shown on pages 10-11 of the manual needs to be pointed at the IR sync window location on the receiver. Both of these windows should be facing each other within about 1/2" or less when syncing. - Make sure the transmitter is pointed at the right location on the receiver. See pages 6, 8 or 9 to locate the IR window of receiver. It should say IR next to the IR sync window on your receiver. - The transmitter window is not aligned properly to the receiver during the syncing process. Position within 1/2" or less. The IR sync windows must be aligned when the receiver is in the IR sync mode. See page 12 for details. - Turn off all nearby transmitters or receivers that are not currently going through sync process. An additional transmitter that is turned on may interfere with the syncing process.

PROBLEMA	POSIBLE CAUSA	SOLUCIÓN
Recibidor - No sonido - No luces	- El botón de poder esta en la posición de APAGADO. - Adaptador de electricidad AC no esta conectado. - Conexión pobre del adaptador de electricidad.	- Encienda el botón o switch. Es posible que necesite presionarlo par 3 segundos para que encienda. - Enchufe el adaptador de poder AC. - Verifique si el adaptador de poder esta suelto. Verifique el final del receptor o el cortacorrientes de la pared.
Micrófono - No sonido - Luces encendidas	- El transmisor esta fuera de range. - El interruptor del micrófono esta apagado. - El Volumen del micrófono esta muy bajo. - Las baterías en el micrófono no estan instaladas apropiadamente. - El receptor no esta conectado al amplificador, mezcladora u otro sistema de sonido. - La frecuencia del micrófono no esta sincronizada con el receptor.	- Opere el aparato dentro de en rango efectivo. - Encienda el micrófono. - Suba el volumen del micrófono en el receptor. - Póngale baterías en el transmisor. Asegurar que el lado positivo y el negative esta en la posición adecuada. - Conecte un cable del receptor a una entrada de micrófono en su sistema de sonido. - Utilice la función de sincronizar IR para sincronizar su micrófono al receptor.
Sonido - Sonido distorsionado - Retroalimentación o feedback - Caída de señal o drop out	- Los micrófonos estan muy cerca el uno de el otro. - Las Baterías esta agotadas. - Volumen del micrófono esta muy alto. - Distorsión de otra onda electrica. - Interferencia de frecuencia.	- Cree distancia entre los micrófonos. - Reemplace las baterías. - Reduzca el volumen de las micrófonos. - Mueva el receptor lejos de otros equipos electrónicos. - Intente cambiar el canal del micrófono. Ambos transmisores y receptores deben tener la misma frecuencia para poder ser operados.
Sincronizar IR Micrófono no esta sincronizando con el redibidor	- El transmisor esta apuntado en la dirección incorrecta. - El transmisor no esta siendo apuntado en la posición correcta en el receptor. - Asegurar de que el transmisor esta suficientemente cerca para ayudar a alinearse. - Hay un segundo transmisor a receptor cerca.	- Asegurar que el transmisor esta apuntado en la dirección correcta. La ventanilla del sincronizado IR mostrado en las páginas 10-11 de el manual necesitan ser apuntados a la ventanilla del sincronizar IR en el receptor. Ambas ventanillas deben estar mirándose y a menos de 1/2" mientras esta sincronizando. - Asegurar que el transmisor esta apuntado el área correcta en el receptor. Vea páginas 6, 8 y 9 para localizar la ventanilla en su receptor. Debe decir IR al lado de la ventanilla de sincronizar IR en su receptor. - La ventanilla en el transmisor no esta alineada apropiadamente durante el proceso de sincronizar. Posiciones a 1/2" o menos. La ventanillas de Sincronizar IR deben estar alineadas mientras están en el modo de Sincronizar IR. Vea pagina 12 para mas detalles. - Apague todos los transmisores a receptores que estén cerca y no estén siendo usados al momenta para que no se sincronicen con nada. Un transmisor adicional que esta encendido puede causar interferencia durante el proceso de sincronizar.

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

For FCC Class B use of this digital device: (Residential use)

NOTE: 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