





LTM-WAVE-RC

Wireless 8-Channel Receiver

For use with LTM-WAVE-AG Transmitter

DESCRIPTION

The LAIRD WAVE-RC is a powerful and efficient means of remote monitoring your LTM-WAVE-AG transmitter. The system may be used to receive standard NTSC composite video signal and can receive a clean UHF signal up to 250 feet line-of-site and approximately 75 feet indoors between walls. The WAVE-RC can demodulate UHF signals transmitted by the LTM-WAVE-AG and convert to standard base-band composite video / line-level audio for use with compatible display or recording equipment.

Some notes on wireless transmissions:

This system uses standard UHF low power transmissions / reception of TV signals for use in monitoring and viewing only. Low power UHF transmissions are subject to other environmental signal ingress and it must be noted that it is possible that other transmissions of equal or more signal strength may cause interference on the channel that is in use by the WAVE-RC.

The WAVE-RC works best in LINE-OF-SIGHT applications, where the transmitter is in sight line to the transmitter. Indoor use of the WAVE-RC will be reduced by such environmental conditions as metal surfaces, walls, and steel structures. You may see occasional flickers as the receiver is in motion. This is caused by reflections from surfaces in the environment. The best results for indoor work is where the receiver somewhat stationary.

The WAVE-RC is designed for remote signal monitoring only. The signal is received and decoded to a composite video / line level audio signal. These signals can be fed to any compatible monitor, projector or recorder. This signal can be recorded, however, any reflections or UHF interference may cause a poor signal quality to be recorded.

The WAVE-RC reception is accomplished over a standard UHF TV carrier. As such, these signals can be monitored and/or recorded by anyone within range of such transmission. Please be aware that your work is not protected and may be received by others not under your control or employ.

Please be aware that the Federal Government and the FCC has specific laws that regulate low power transmission / reception and video surveillance using wireless technology. This product should not be used for any activity that is defined as a violation of any of such laws or the invasion of personal privacy of individuals. Please research and follow the local and Federal laws that regulate such technology and its use.



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TECHNICAL SUPPORT

The LTM-WAVE-RC is designed for reliable operation. Should there be any technical assistance required, you may call our tech support line at 845-339-9555.

Or visit the Laird support website at: www.laird-support.com

LEGAL NOTICE FOR OPERATIONS

This device operates on UHF frequencies reserved for non-commercial use only in the U.S. Federal Communications Commission (FCC) regulations state that an Amateur Radio License is required to operate this unit legally within the United States. Amateur Radio License required for hobby and non-commercial applications within the USA (for all non FCC-approved, unrestricted transmitters). We encourage you to observe all laws when operating this device.

UHF transmitters operate in the Amateur Radio Service (ARS) frequencies, and according to FCC regulations, requires licensing for legal operation. There are no restrictions on the sale of this equipment, however LAIRD TELEMEDIA urges the user to become familiar with and observe all laws and regulations governing ARS licensing and the operation of ARS equipment. Please note that the ARS frequencies are not for commercial use.

Please visit <http://www.remote.arrl.org> for more information.

PRODUCT FEATURES AND SPECIFICATIONS

Available Channels:	CATV 59,CATV 60, CATV 61, UHF 14, UHF 16, UHF 18, UHF 20, UHF 22
Antenna Type:	Omni-Directional
Video Format:	NTSC
Radiated Power	10mW AM @ Peak
Connector Format:	Video Output - RCA Female @ 75 ohms - 1.0 Volt P-P Audio Output -RCA Female @ 600 ohms- 1.0 Volt P-P
Operating Temperature Range:	-22 - +140F
Operating Voltage:	9 - 13 Volts DC, Polarity Protected
Current Consumption:	270mA @ 12 Volts DC
Dimensions:	Receiver Unit: 2.73" x 2.01" x 1.06"
Transmitter Type:	LTM-WAVE-AG
Weight:	3.8 oz., 110 grams



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THE LTM-WAVE-RC IS A SPECIALIZED PRODUCT DESIGNED TO OPERATE AS A UHF LOW POWER RECEIVER / DEMODULATOR FOR THE LTM-WAVE-AG TRANSMITTER. IT HAS BEEN OPTIMIZED BY DESIGN TO WORK WITH THAT TRANSMITTER AS A SET.

WAVE-RC SYSTEM CONTENTS

Examine the contents of the package. You should have the following components:

- WAVE-RC Receiver and Antenna
- 12 Volt AC Adapter
- 6 Foot RCA to RCA Audio Cable
- 6 Foot BNC to RCA Video Cable
- RCA to BNC Adapter
- Heavy Duty Velcro Strips (2)
- Instruction Manual





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SETTING UP THE WAVE-RC

The LTM-WAVE-RC is completely micro-processor controlled. This allows for the AGILE method of frequency programming. The unit has 8 standard TV channels for reception. The channel listings are screened on the face of the product. Please note that the first 3 channels are CATV cable channels and require that the LTM-WAVE-AG be set to CATV for these channels to work. The other 5 channels are UHF channels. See Chart below:

WAVE-RC FREQUENCIES

SELECTABLE CHANNELS	MHz
1 CATV 59	433.25
2 CATV 60	439.25
3 CATV 61	445.25
4 UHF 14	471.25
5 UHF 16	483.25
6 UHF 18	495.25
7 UHF 20	507.25
8 UHF 22	519.25

POWER OPTIONS

NOTE: DO NOT OPERATE OR TURN ON THE LTM-WAVE-RC WITHOUT THE SUPPLIED ANTENNA FIRMLY CONNECTED.

The WAVE-RC can be powered from any clean filtered DC power source inclusive of various battery supplies. The power jack is a standard DC jack with a 2.1mm center pin diameter. Do not use 2.5mm power plugs, they will not fit properly and may cause damage to the unit.

Power ranges from 9 volts to 13Volts will work fine, however the best power for longer ranges up to 250 feet should be 12 Volts. The Unit is shipped with a 12V AC to DC adapter. You may use several optional power choices to power your product including battery adapters which convert standard 7.2V camcorder batteries to 12V DC.

The power jack is wired TIP POSITIVE and SHELL GROUND. Power polarity protection is provided in the event of cross wired power jacks.

Below is a list of several commonly available power options to power your WAVE-RC. The unit draws 210mA @ 9Volts and 270@12Volts. Use this information when calculating AH(Amp Hour) ratings for run time.

Once power is provided to the unit, the LED begins to blink. This indicates that the system is ready for programming.

CAMCORDER BATTERY ADAPTERS

LTM-PWR-NP1 NP-1 Battery Adapter. Mounting plate holds your NP-1 battery with power plug pigtail output. NP-1 Battery not included.

LTM-BATSNY Accepts the following Camcorder batteries with 2.1mm plug output cable. Battery not included.

Sony: NP-730, NP-F330, F530, F550, F730, F730H, F750, F930, F950.
Panasonic: AG-BP-15, AG-BP15P, AGBP25, PV-DBP5, VW-VBD1, VW-VBD1/E, VW-VBD2, CGR-B/202, CGR-B/403.
Yashica: BP-VI
JVC: BN-V812, BN-V812U, 814

LTM-BATCN **Canon:** BP-80, BP-85, BP-911, BP-914, BP-915, BP-924, BP-927, BP-930, BP-941, BP945



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SETTING UP THE WAVE-RC

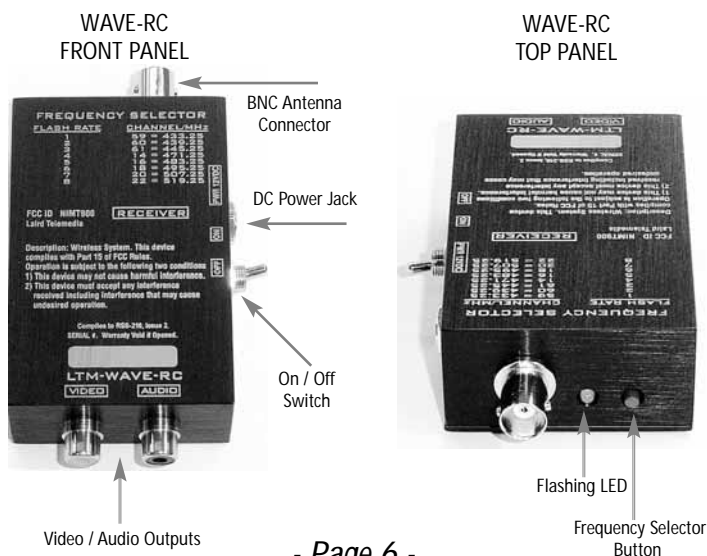
SETTING THE FREQUENCIES:

To set the transmission frequency press and hold the Button below the LED for 4 seconds. The LED will flash rapidly then stop. Release the button and then press it the number of times corresponding to the frequency you require. Allow about half a second duration on the button for each count. After the last count has been entered the LED will pause then flash the number of times as per the selection:

Ex: CHANNEL 3 : CATV 61 : WAVE-RC FLASHES 3 TIMES

The LED will continue flashing in this manner with a 1 second pause in between until another frequency has been made. To change the frequency you must again hold the button down for 4 seconds and repeat the procedure.

It may take a few attempts until you get the timing just right. Just hold the button down for 4 seconds to reset the device for programming. The WAVE-RC uses a highly efficient technology to lock in transmission frequencies. If you cannot receive the channels on your receiving device, please check the receiver first. Make certain that you are transmitting on the proper frequency to match the receiver.





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SETTING UP THE WAVE-RC

The WAVE-RC may be used with any standard video monitor, projector or recorder. It may be required that a special adapter be used to convert the provided cables to your particular device. Heavy duty Velcro is provided for easy attachment to your devices. Apply the same size piece to the receiver and simply attach to a clear spot on your device. The Velcro provided is very strong and will require care to remove it once the two pieces are secured.

LTM-WAVE-AG Transmitter Companion Product for the LTM-WAVE-RC Receiver (Sold Separately)



With addition of Audio, RS170A quality signals and a frequency agile transmitter, the new Laird micro sized LTM-WAVE-AG revolutionizes Audio and Video UHF remote signal monitoring. This micro-processor controlled transmitter features 8 selectable channels of RS170A quality audio and video signals at a range of 250 feet line of sight. The signal can be received on any standard UHF receiver, TV set or Demodulator. The LTM-WAVE-AG accepts composite video and line level audio. Frequency selection is just the push of a button for an instant choice among 8 standard NTSC UHF TV channels.

The transmitter can be quickly mounted to any video source and runs on 9-12V DC power. The BNC mounted omnidirectional antenna folds 90 degrees while attached for infinite positioning.

The LTM-WAVE-AG draws a maximum of 270mA and can be powered by any 9-12 VOLT DC power source. The LTM-WAVE-AG is shipped with six AA batteries. Several other power source options and configurations are available, as well as custom configurations.



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