



WA-120BT

Portable Wireless PA



OWNER'S MANUAL

CONTENTS

INTRODUCTION	2
CONTROLS AND CONNECTIONS	3
OPERATING INSTRUCTIONS FOR THE NADY WA-120BT	5
MEDIA MODULE / MP3 PLAYER OPERATION.....	7
WA-120BT WIRELESS MICROPHONE RECEIVER OPERATION	8
WHT-120 HANDHELD MICROPHONE TRANSMITTER.....	9
WLT-120 LAVALIER / HEADMIC BODYPACK TRANSMITTER.....	10
SPECIFICATIONS.....	12
SERVICE / WARRANTY.....	13

INTRODUCTION

Thank you for purchasing a Nady WA-120BT Wireless Portable P.A.—and congratulations on your choice. The WA-120BT is the most affordable and compact of the popular line of Nady wireless P.A.'s. Ideal for many applications, including use in classrooms, conference/meeting rooms, churches, health clubs and small auditoriums, it is powerful, yet lightweight and easily portable. We are sure you will find this versatile system a powerful and useful tool for your presentations.

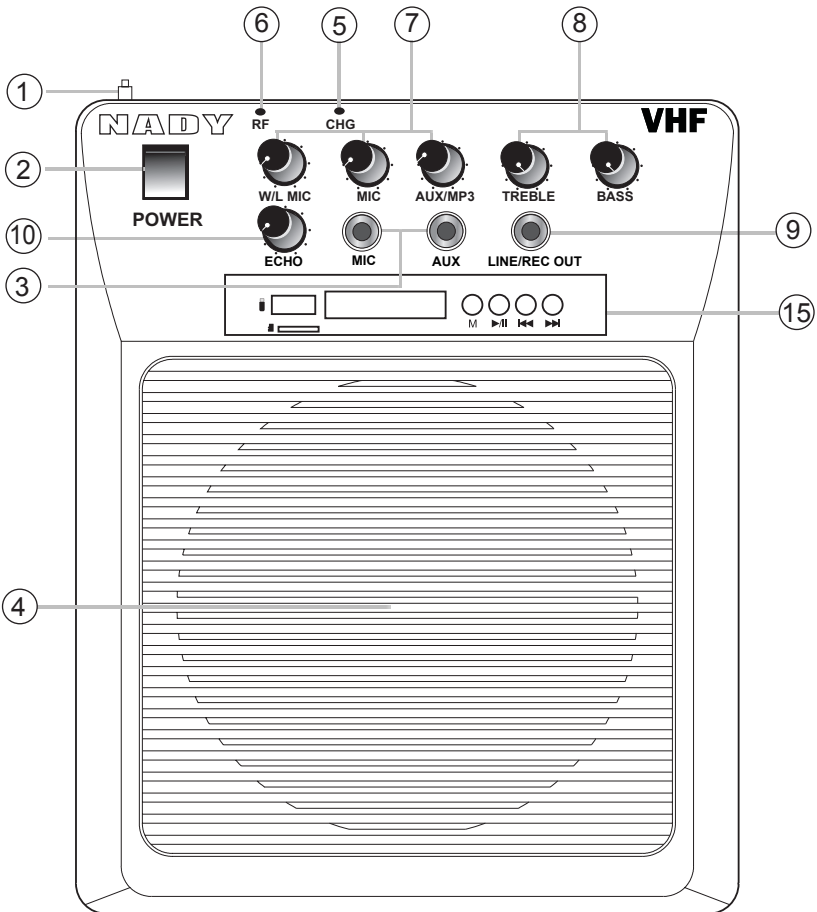
The Nady WA-120BT includes a full-range speaker system with built-in amplifier, mp3 player, mixer, and high band VHF wireless receiver.

Special features include:

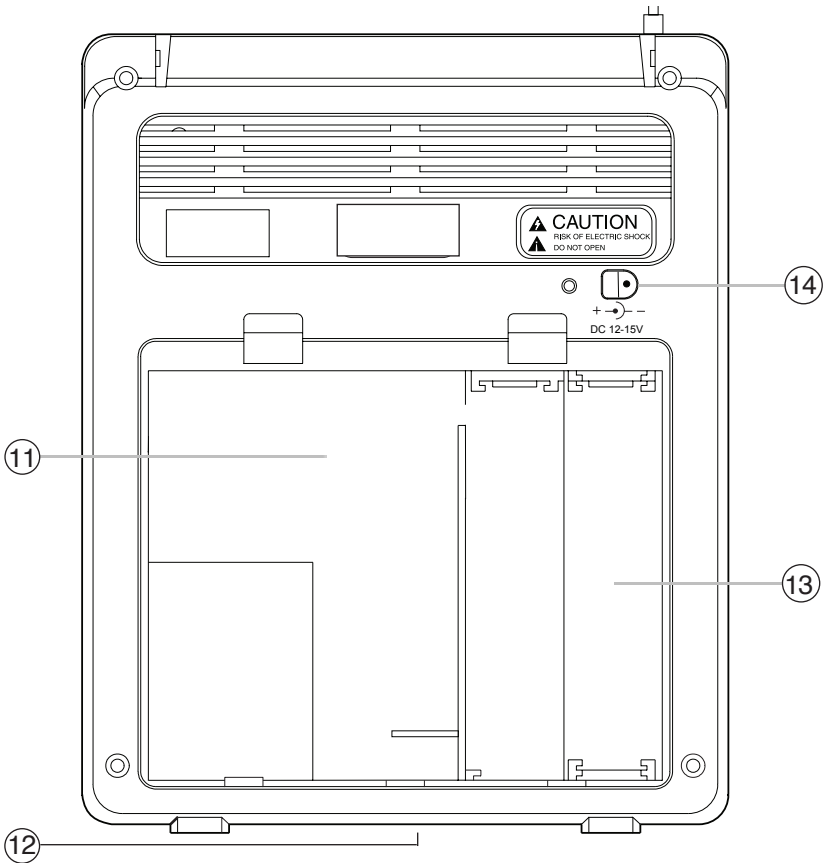
- Powerful 20W maximum audio power output
- Built-in echo/reverb
- 1/4" unbalanced input jacks (1 MIC, 1 AUX) and one 1/4" unbalanced RECORD OUT, volume, treble and bass and echo/reverb controls
- Built-in bluetooth / USB / micro SD card mp3 player
- Wireless system features noise-reduction companding circuitry for quietest operation with a wide dynamic range.
- Available with choice of WHT-120 handheld Mic or WLT-120 Lavalier/Headset Mic bodypack transmitters. One WA-120BT wireless P.A. and one WHT-120 or WLT-120 transmitter on the same channel comprise a system.
- Powered externally with provided Universal Voltage 110V-240V AC adapter, or internally with either 8 "D" cell alkaline or rechargeable batteries or the optional RB-120 rechargeable battery
- Convenient internal built-in charger for optional RB-120 rechargeable battery
- Small and lightweight—only 8.3" x 10.6" x 5.4" (211 x 270 x 137mm) and 5.3 lbs. (2.4 kg)

CONTROLS AND CONNECTIONS

1. **Wireless microphone receiver antenna** Pull out and extend fully for optimum range
2. **Power ON/OFF switch**
3. **MIC and AUX signal input jacks** ¼" TS (mono)
4. **Speaker**
5. **"Battery charging" LED indicator**
6. **"RF ON" LED indicator** Indicates reception of transmitter signal
7. **Volume controls**
8. **Tone controls**
9. **Line/Record out jack** Provides signal for recording or additional amplification
10. **Echo level control** Controls the amount of echo/reverb in the channel signal



- 11. Storage compartment for AC adapter and optional RB-120 12VDC rechargeable battery
- 12. Mounting hole for use with optional MST-4B tripod stand
- 13. Battery-mount for 8 X "D" batteries Used for internal battery operation of unit
- 14. External DC input jack
- 15. Media module / MP3 player



OPERATING INSTRUCTIONS FOR THE WA-120BT

Powering the WA-120BT

• External Adapter

Plug the external provided **AC/DC Adaptor** into the **External DC input jack (14)** socket. Then plug the AC/DC adapter plug into a standard 115VAC or 240VAC outlet (The AC adapter will detect the line voltage automatically). Turn on the unit using the **Power switch (2)**.

(Note: To avoid damaging your unit, use only the provided AC adapter)

• RB-120

The WA-120BT can be powered internally using the optional RB-120 rechargeable battery. Observe the RB-120 battery positive (+) and negative (-) polarities when installing it into the **Optional RB-120 rechargeable battery slot (11)** while the WA-120BT is connected to AC power with the provided AC adapter. If the **Battery charging LED (5)** turns red, the RB-120 is not fully charged and should be allowed to charge while the WA-120BT is powered by the AC adapter. *(Note: Turning off the WA-120BT **Power switch (2)** will allow the RB-120 to recharge more quickly.)* If the **Battery charging LED indicator (5)** lights green, the RB-120 is fully charged and ready to power the WA-120BT alone. Shut off the **Power switch (2)** and disconnect the AC adapter. Turn the unit back "ON" and the RB-120 will power the unit while still connected to the optional RB-120 rechargeable compartment (11). The RB-120 can be easily stored in the **Storage compartment (11)** while in use or transporting.

(Note: Connecting the AC adapter will automatically charge the internal RB-120 battery power.)

(Note: Connecting the AC adapter will automatically disconnect the internal "D" cell batteries. The WA-120BT does not recharge "D" cell batteries.)

• (8x) "D" Cell Batteries

The WA-120BT can also be powered internally with (8x) "D" cell batteries. Insert the batteries while observing the correct polarity as marked. For longest operation use only alkaline or rechargeable batteries. Replace the batteries when the output volume drops or the range of the wireless decreases.

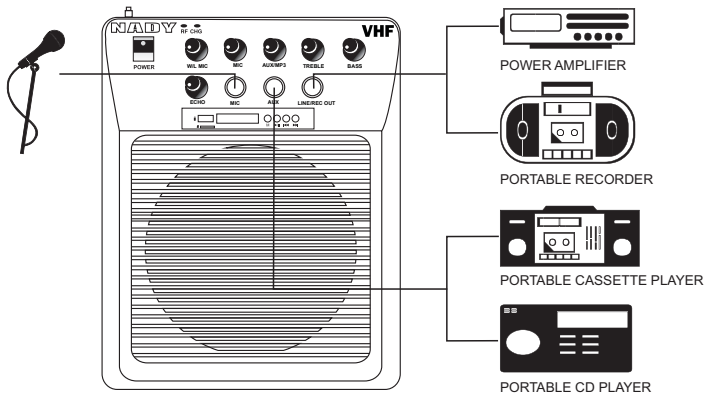
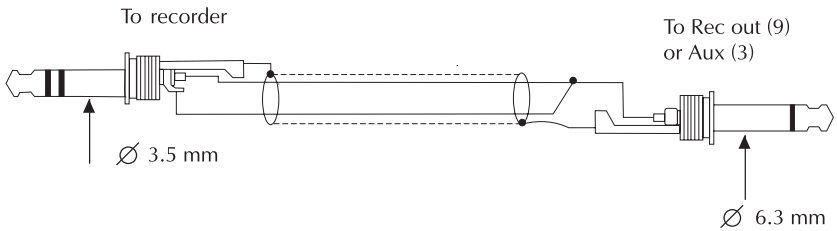
(Note: The WA-120BT does not recharge "D" cell batteries.)

Attention:

1. If feedback (howling sound) occurs, try first turning down the treble control (8). If feedback still is present, try turning down the volume (7) or repositioning the WA-120BT with respect to the wired or wireless microphone being used.
2. Extend the antenna (1) fully whenever using the wireless microphone to ensure optimum performance and maximum range.

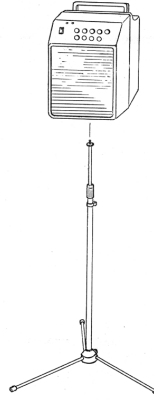
Wiring Illustration

The **MIC input (3)** can be used to connect a hard wired microphone. The **REC OUT (9)** can be connected to a recording device or to the input jack of a power amplifier to further amplify and enlarge the audio power. For stereo to mono conversion of the signals, wire the connecting cord as per the following illustration:



Stand Mounting the WA-120BT

The WA-120BT can be mounted on the optional MST-4B aluminum tripod stand for convenient placement in a higher position. Contact your dealer or the Nady service department. (See Page 12)



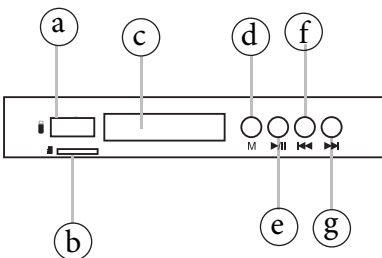
MEDIA MODULE / MP3 PLAYER OPERATION

The WA-120BT contains a full-featured media module

Insert a flash drive into the USB port **(a)** or a flash memory card into the MicroSD card slot **(b)**, the WA-120BT will start playing the music on the drive automatically. If both USB and MicroSD input ports are used, the WA-120BT will play the music from the USB flash drive. To play the music from the MicroSD card, press the MODE button to switch to MicroSD mode.

To play music from a BlueTooth enabled smart device (such as mobile phone, tablet, computer...), Press the "M" button **(d)** to set the WA-120BT into pairing mode. The BlueTooth icon lights up and the letters "bt" are displayed. Turn on the BlueTooth function on your smart device and search for "WMA-207" to connect with the media module. You can now play music from your smart device.

Media Module / MP3 Player:



- a. USB port
- b. MicroSD card input
- c. Display
- d. "MODE" button
- e. "Play / Pause" button
- f. "Previous Track" button
- g. "Next Track" button

Note: If pressed for a second or more, the "Previous Track" **(f)** and "Next Track" **(g)** buttons allow you to adjust the internal volume of the media module. If loss of volume occurs with the media module, hold the "Next Track" button until maximum volume has been reached.

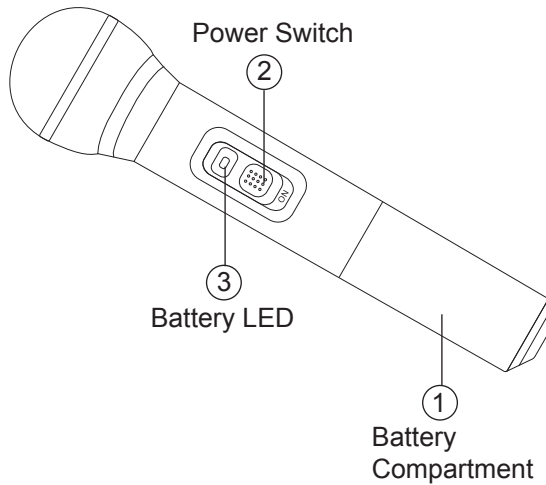
WA-120BT WIRELESS MICROPHONE RECEIVER OPERATION

The WA-120BT contains a built-in high quality quartz-locked, fixed frequency VHF wireless receiver precisely matched to the Nady WHT-120 or WLT-120 transmitter supplied; therefore, generally no adjustments besides audio volume are required.

- After the amplifier has been turned on by the main **Power switch (2)**, turn the wireless receiver's **W/L MIC Volume control (7)** slightly clockwise.
- Switch on the wireless microphone and the **RF receiving indicator (6)** will light up indicating normal reception.
- Adjust the **W/L MIC Volume control (7)** clockwise (CW) for the desired audio level.

Note: If using more than one wireless microphone (handheld and/or bodypack) on the same frequency, switch only one on at a time. Microphones on the same frequency will interfere with each other. However, one wireless microphone can be used with two or more WA-120BT wireless amplifiers with the same frequency simultaneously to increase the overall sound level.

WHT-120 Handheld Microphone Transmitter



WHT-120 HANDHELD MICROPHONE TRANSMITTER

The Nady WHT-120 is a sleek tapered microphone with these special features:

- Features high quality dynamic cartridge for optimum true sound, maximum feedback rejection and minimal handling noise
- OFF/STANDBY/ON switch allows convenient audio muting with the transmitter “ON”
- Low battery LED indicator flashes once for unit “ON”; lights steady for low battery alert

Transmitter Set-up and Operation

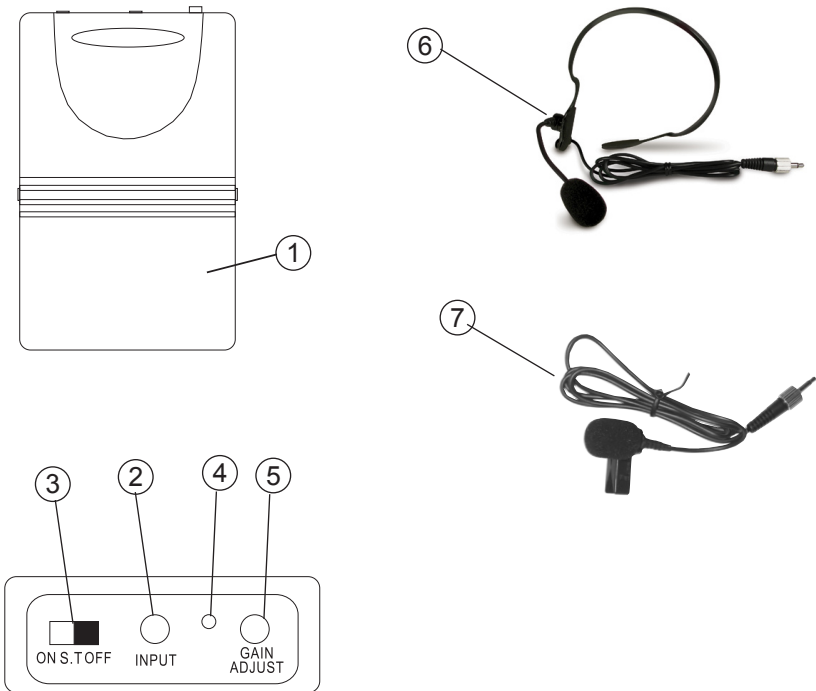
- Unscrew the battery compartment **cover end cap (1)** and remove, exposing the battery compartment. Insert 2 fresh AA batteries, observing polarity. Re-attach the battery cover.
- Turn on the microphone **power switch (2)**.
The battery **indicator LED (3)** will give a single quick flash, indicating usable battery strength. In the case of a dead or low battery, the indicator will either not go on at all or will stay on continuously, indicating a need to replace the batteries. To preserve battery life, turn the transmitter off when not in use.
- The RF ON indicator on the WA-120BT should now be lit.
- Adjust the volume of the WA-120BT to the desired level.

WLT-120 LAVALIER/ HEADMIC BODYPACK TRANSMITTER

The Nady WLT-120 is a rugged compact bodypack designed for use with lavalier or headworn mics, and includes these special features:

- OFF/STANDBY/ON switch allows convenient audio muting with the transmitter “ON”
- Low battery LED indicator flashes once for unit “ON”; lights steady for low battery alert
- Locking 3.5mm mini-jack provides secure connection for removable microphones
- Easily accessible input level adjust control for optimum sound
- Operates on 2 AA batteries for economical and long life operation.

WLT-120 Bodypack Transmitter



Transmitter Set-up and Operation

- Open the **battery compartment (1)** and insert 2 fresh AA batteries, observing the correct polarity. Close the compartment.
- The WLT-120 is provided with a **3.5 mm locking jack (2)** for connecting the microphone. Plug in either the **Lavalier/Lapel (7)** or the **Headworn microphone (6)** as supplied. To secure the connection, turn the metal slip ring on the plug clockwise to thread it on to the jack. To unplug, reverse the process. Slip the transmitter into a pocket or clip on to your clothes. To use the lavalier mic, attach it at chest level. Do not place too close to the mouth – a distance of about six inches usually works best. To use the headworn mic, place it on the head and adjust the mic boom so that the mic is about one inch to the side of the front of the mouth. *(Note: The lavalier or headworn mic wire is also the transmit antenna, and rolling up or shortening the wire may reduce the effective operating range. Extend the wire fully during use, and keep it as straight as possible.)*
- Turn on the WLT-120 by sliding the **OFF/STANDBY/ON SWITCH (3)** to the STANDBY position (transmitter on, audio muted) or the ON position (transmitter and audio both on). The **battery indicator LED (4)** will give a single quick flash, indicating usable battery strength. In the case of dead or low batteries, the LED either will not go on at all or will stay on continuously, indicating that the batteries should be replaced with fresh ones.
- The RF ON light on the WA-120BT should now be lit.
- Re-position the microphone farther from the source or adjust the **audio input level control (5)** if the monitored volume is too loud or distorted after adjusting the receiver.
- Adjust the volume control of the WA-120BT to a comfortable listening level as desired.

[Note: Observe care in selecting volume, transmitter location and speaker placement so that acoustic feedback (howling and screeching) will be avoided. Please also observe the pickup patterns of the microphone selected: omnidirectional microphones pick up sound equally from all directions and are prone to feedback if not used carefully. Unidirectional microphones are more resistant to feedback, but pick up sound sources best that are directly in front of them. Also, microphones that are farther from the sound source, such as lavaliers, require more acoustic gain and thus are also more prone to feedback than close-source microphones such as handheld or headworn microphones that are used close to the mouth.]

(Note: Microphone elements can easily be destroyed by the buildup of salts and minerals from perspiration and saliva. It is good practice to put a windscreen on the microphone element at all times to protect it.)

SPECIFICATIONS

Audio Power Output:	20W maximum, 4 ohms
External DC Power:	15VDC, 1200mA AC adapter
Internal Batteries:	8 "D" size alkaline batteries (SUM-1) or optional 12V/1.2A (RB-120 Rechargeable Battery)
Input Sensitivity/ Frequency Response:	W/L MIC: -52dB \pm 2dB, 150-15KHz \pm 3dB MIC: -52dB \pm 2dB, 150-15KHz \pm 3dB AUX: -18dB \pm 2dB, 100-15KHz \pm 3dB
T.H.D.:	1%
Media module / MP3 player	BlueTooth version: 3.0 BlueTooth range: 10m USB standard: 2.0
Inputs:	Wireless Mic, Hardwired Mic and AUX line inputs
Tone Control Range:	Treble: \pm 6dB at 10kHz Bass: \pm 6dB at 100 Hz
LINE/REC output level:	775mV at 1k Ω
Wireless Operating Frequency Range:	170-216MHz, FM (3E)
Wireless Operating Distance:	100 ft. typical, up to 200 ft. line of sight
Dimension:	8.3" x 10.6" x 5.4" (211 x 270 x 137mm)
Weight:	5.3 lbs. (2.4 kg.)

SERVICE

(U.S.) Should your Nady WA-120BT require service, please contact the Nady Customer Service Department via telephone: (510) 652-2411 or e-mail: support@nady.com.

(INTERNATIONAL) For service, please contact the Nady distributor in your country through the dealer from whom you purchased this product. The warranty section below provides valuable warranty and service information. Store it in a safe place for future reference. Do not attempt to service this unit yourself as it will void your warranty.

ONE YEAR WARRANTY

Nady Systems, Inc. warrants to the original consumer purchaser that your unit is free from any defects in material or workmanship for a period of one year from the date of purchase. If any such defect is discovered within the warranty period, Nady Systems, Inc. will repair or replace the unit free of charge, subject to verification of the defect or malfunction upon delivery or shipping prepaid to Nady Systems.

Important:

Please do not return our product to the store where it was purchased. Nady Systems, Inc. accepts the responsibility of keeping you a satisfied customer. This warranty does not apply to defects or physical damage resulting from abuse, neglect, accident, improper repair, alteration, or unreasonable use of the unit resulting in cracked or broken cases or parts, or units damaged by excessive heat, and does not apply to batteries or damage caused by leaking batteries. This warranty does not cover finish or appearance items nor items damaged in shipment en route to Nady Systems Inc. for repair. You must include proof of date and place of purchase (i.e. photocopy of your bill of sale) or we cannot be responsible for repairs or replacement. If factory service is required, you must contact our Service Department at 510/652-2411 for a return authorization (RA) number. Make sure the RA number is clearly marked on the outside of the package. Nady Systems, Inc. will not repair nor be held responsible for any units sent without proper identification and return address or RA number clearly marked on the package. Any applicable implied warranties including warranties of merchantability and fitness are hereby limited to one year from date of purchase. Consequential or incidental damages resulting from a breach of any applicable express or implied warranties are hereby excluded. This warranty is in lieu of all other agreements and warranties, general or special, express or implied and no representative or person is authorized to assume for us any other liability in connection with the sale or use of this Nady System's product. Some states do not allow limitations on how long implied warranties last and do not allow exclusion of incidental or consequential damages so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

Nady wireless systems are type accepted under FCC rules parts 90, 74 and 15.

This device complies with RSS-210 of Industry & Science Canada. 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.

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 50mW); 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 www.fcc.gov/cgb/consumerfacts/wirelessmic_factsheet.html.



NADY SYSTEMS, INC.
California, USA
nady.com