

# NADY 351 VR

## WIRELESS MICROPHONE SYSTEM FOR CAMCORDERS



**NADY SYSTEMS, INC.**

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**OPERATING  
INSTRUCTIONS**

## SPECIFICATIONS

### Overall System Performance

Frequency Response .....	25 - 20,000 Hz $\pm$ 3 dB
Operating Frequency Range.....	Choice of 5 channel between 170-216 MHz
Dynamic Range .....	120 dB (max SPL to A-weighted noise level)
Harmonic Distortion .....	< 0.3%
Frequency Stability .....	$\pm$ .005%, crystal controlled
Modulation .....	FM, $\pm$ 15 KHz
Operating Range .....	Up to 250 feet (depending on site conditions)

### 351 VR Receiver

Controls .....	Headphone volume controls with unit OFF/ON switch, Mute adjust, Audio output level adjust
Audio output .....	600 ohm unbalanced
Connectors .....	Audio output; 3.5 mm mini jack; Headset output; 3.5 mm mini jack
LED Indicators .....	"TX" on; "LOW BATT": unit "ON" (single flash), Low Battery Alert (steady)
Mute .....	Externally adjustable; 1 $\mu$ V preset minimum
Unwanted Signal Rejection .....	60 dB image and spurious
Power Requirements .....	Single 9V alkaline, internal
Antenna .....	Softwire, detachable

### WLT Lavalier Bodypack Transmitter

Audio Input .....	3.5 mm mono locking jack for connecting to omni or unidirectional lavalier mic or unidirectional head worn mic, with phantom power.
Controls .....	OFF/STANDBY/ON switch, input level adjust
LED Indicators .....	Unit "ON" (single flash), Low Battery Alert (steady)
RF Power Out.....	50 mW (maximum allowed by FCC)
Harmonic and Spurious Emissions .....	> -40 dB
Battery .....	9V alkaline
Battery Life .....	Up to 15 hours

### WHT Handheld Microphone Transmitter

Audio Input .....	Nady DM-10D neodymium dynamic cartridge
Controls .....	OFF/STANDBY/ON switch
LED Indicators .....	Unit "ON" (single flash), Low Battery Alert (steady)
RF Power Out.....	50 mW (maximum allowed by FCC)
Harmonic and Spurious Emissions .....	< -40 dB
Battery .....	9V alkaline
Battery Life .....	Up to 15 hours

### Service for your Nady Wireless System

(U.S.) Should your wireless system require service, please contact the Nady Service Department via telephone at (510) 652-2411 or e-mail to [service@nady.com](mailto:service@nady.com) for a Return Authorization (R/A) Number and a service quote (if out of warranty). Make sure the R/A Number is clearly marked on the outside of the package and enclose a cashier's check or money order (if not prepaid with a credit card). Ship the unit prepaid to: Nady Systems, Inc., Service Department, 6701 Shellmound Street, Emeryville, CA 94608. Include a brief description of the problem you are experiencing.

**The warranty card enclosed with this system contains additional valuable warranty and service information. Keep it in a safe place for possible future reference. Do not attempt to service this unit yourself as it will void the warranty.**

**(International)** For service, please contact the Nady distributor in your country through the dealer from whom you purchased this product.

## TABLE OF CONTENTS

Using this Manual .....	3
351 VR Receiver .....	4
WLT Lavalier Bodypack Transmitter .....	6
WHT Handheld Microphone Transmitter .....	8
Specifications .....	10
Service .....	10

Thank you for purchasing a Nady 351 VR wireless camcorder microphone system—and congratulations on your choice. The 351 VR operates on long-range interference-free VHF high band frequencies. It also utilizes a patented companding noise reduction system for excellent dynamic range (120 dB) and hiss-free performance. The 351 VR will make a tremendous difference in your videos, adding professional quality audio to every production.

### Using this Manual

Please read these instructions completely before operating your unit. This booklet gives instructions for the operation of the Nady 351 VR wireless system which consists of a wireless receiver, an audio cord to connect the receiver to your camcorder, and a wireless microphone transmitter—either the WLT lavalier or Nady WHT handheld.

## **NADY 351 VR RECEIVER**

- Ultra-compact receiver can be camera mounted or worn on the body (with attached clip).
- Easy hookup to camcorder with supplied connecting cable
- Powered by a 9V Alkaline battery in a convenient “slide open” battery compartment
- LED lights indicate low battery and receiver signal
- Detachable softwire antenna extends from the top of the receiver
- Convenient operation with Output Level and Mute Adjusts, separate 3.5mm Audio Output and Monitor Headphone mini jacks and Headphone Volume thumbwheel control with integrated unit OFF/ON switch

### ***Operating Instructions***

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#### ***Powering the Receiver***

Slide the receiver's battery cover open and place a fresh 9V battery in the **BATTERY COMPARTMENT (1)**, observing the correct polarity. (Although a fresh alkaline battery can last up to 8-10 hours in use in the receiver, in order to ensure optimum performance it is recommended that the receiver battery be replaced after 5 hours use.) Turn the receiver on by rotating the **ON/OFF/VOLUME WHEEL (2)** clockwise. The **LOW BATT LED (3)** will flash briefly, indicating adequate battery strength. If the LOW BATT LED lights during use, replace battery.

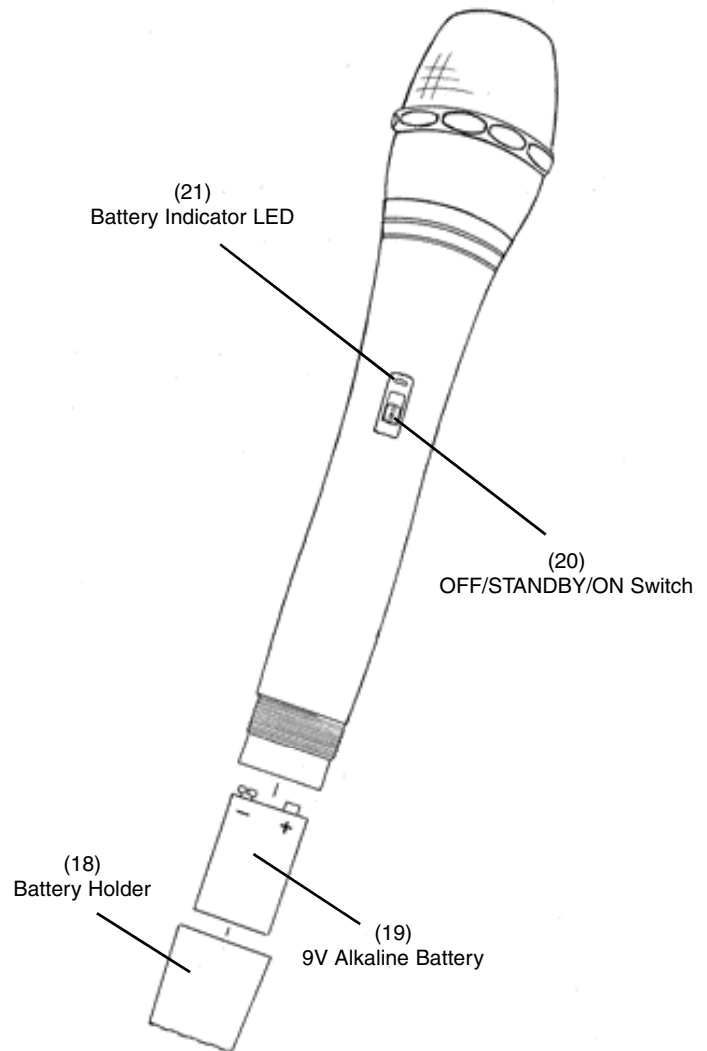
#### ***Antenna***

When the system is in use, the 351 VR receiver's standard wire Antenna should be fully extended to obtain maximum range. You may also install Nady's optional rubber duck or flexible rubber duck antenna. They all simply screw into the **ANTENNA SOCKET (4)** on top of the receiver.

#### ***Mute Adjustment***

In normal operation, the **MUTE CONTROL (5)** on the back of the receiver should be set fully clockwise to the factory preset RF level of 1  $\mu$ V. However, in areas of high RF activity, the mute may need to be adjusted. If, with transmitter off, the receiver's **“TX” LED (6)** flickers or stays on, the MUTE control should be turned counter clockwise until the “TX” LED extinguishes.

When the mute is properly adjusted, the “TX” LED will light only when the system transmitter is turned on. *Note: Turning the MUTE control too far counter clockwise will yield a quieter mute function, but reduce your operating range.*



## WHT HANDHELD MICROPHONE TRANSMITTER

- Features the Nady DM-10D unidirectional neodymium 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

### Operating Instructions

1. Un screw the **BATTERY COMPARTMENT COVER (18)** and remove, exposing the battery holder. Insert a fresh **9V ALKALINE BATTERY (19)**, observing the correct polarity as marked, and screw the cover back on to the microphone. Make sure the cover is screwed on completely. A fresh alkaline battery can last up to 15 hours in use, but in order to ensure optimum performance, it is recommended that you replace the battery after every 10 hours of use.

2. Turn on the WHT by sliding the **OFF/STANDBY/ON SWITCH (20)** to the STANDBY position (transmitter on, audio muted) or the ON position (transmitter and audio both on). The **BATTERY INDICATOR LED (21)** will give a single quick flash, indicating usable battery strength. In the case of a dead or low battery, the LED will either not go on at all or will stay on continuously, indicating that the battery should be replaced with a fresh one. To preserve battery life, turn the transmitter off when not in use.

3. The microphone is now ready to use. The **TX LED (6)** on the 351 VR receiver should now be lit, indicating a received signal from the transmitter. When ready to speak, slide the transmitter switch to the ON position.

#### Receiver Volume Control Adjust

Turn volume control on the 351 VR receiver clockwise to near full gain. Wearing a monitor headset plugged into the receiver's headset jack, speak into the lavalier microphone. Adjust the receiver's volume to a comfortable listening level.

*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 mic element at all times to protect it.*

### Connecting Audio Output

Plug one end of the audio cable provided into the **AUDIO OUTPUT JACK (7)**. The other end should be plugged into your camcorder.

### Connecting Headphone to Monitor

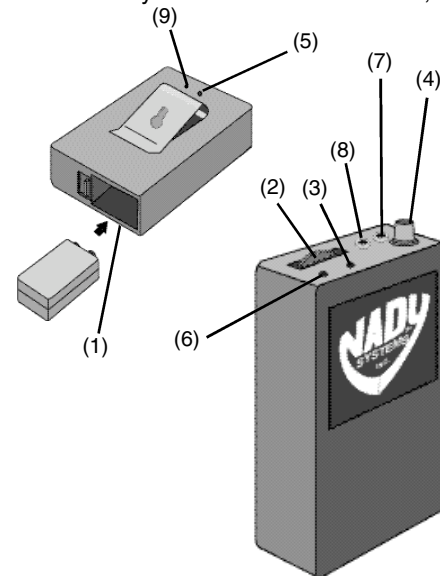
You can monitor the received signal through headphones, and you will need to monitor to set the transmitter's level trim properly. Any "Walkman" type headsets with a minijack or minijack adaptor can be used, though the signal may be heard in only one ear unless a stereo-to-mono adapter jack is used.

### Monitoring through Receiver

Plug headphones into **HEADPHONE JACK (8)** on the receiver. The **ON/OFF/VOLUME WHEEL (2)** controls volume to the headset. Set the volume to a comfortable level by rotating the volume wheel. You will be able to hear the received signal to the receiver when the system is operational. This is the monitoring method necessary when adjusting the WLT-15 transmitter's microphone input level per page 6.

### Monitoring through Camcorder

Many camcorders allow the user to monitor by providing a headphone jack. If you plug your headphones into the camcorder, you may need to make a simple adjustment on the 351 VR receiver. If the sound you hear is uncomfortably loud or sounds distorted, turn the **AUDIO LEVEL CONTROL**



**(9)** on the back of the receiver counter-clockwise until good audio quality is obtained. If volume is too low, turn the **AUDIO LEVEL CONTROL (9)** clockwise until you obtain comfortable volume.

#### Transmitter Set-Up

After completing the above steps, proceed to instructions for operating the Nady transmitter included with your system.

## WLT LAVALIER BODYPACK TRANSMITTER

- 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 microphone or instrument cable
- Easily accessible input level adjust control for optimum sound

### Operating Instructions

1. Snap open the **BATTERY COMPARTMENT (10)** and insert a fresh **9V BATTERY (11)**, observing the correct polarity. Close the compartment.

2. The WLT is provided with a **3.5 mm LOCKING JACK (12)** for connecting the microphone. Plug in either the **LAVALIER/LAPEL (13)** or the **HEADWORN MICROPHONE (14)**, 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.)*

3. Turn on the WLT by sliding the **OFF/STANDBY/ON SWITCH (15)** to the **STANDBY** position (transmitter on, audio muted) or the **ON** position (transmitter and audio both on). The **BATTERY INDICATOR LED (16)** will give a single quick flash, indicating usable battery strength. In the case of a dead or low battery, the LED either will not go on at all or will stay on continuously, indicating that the battery should be replaced with a fresh one.

4. The microphone is now ready to use. The **TX LED INDICATOR (6)** on the 351 VR receiver should now be lit, indicating a received signal from the transmitter. When ready to speak, slide the transmitter switch to the **ON** position and adjust the volume of the receiver as per instructions on page

5. Re-position the microphone farther from the source or adjust the **AUDIO INPUT LEVEL CONTROL (17)** if the monitored volume is too loud or distorted after adjusting the receiver as per instructions on page 5.

*(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 mic element at all times to protect it.)*

