

UH16

UHF Wireless Microphone and Instrument System 16 Channel PLL Frequency Synthesized

OWNER'S MANUAL

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A. INTRODUCTION

Thank you for choosing the Nady UHF 16 wireless system, and congratulations on your choice. The Nady UHF 16 systems are by far the best performance and price value available in professional UHF wireless.

Offering clear channel operation on the wide open, uncluttered UHF band for interference-free performance in any application or locale, the UHF 16 delivers 16 user switchable, frequency synthesized channels in pre-programmed groups in the 726 - 865 MHz range.

The UHF 16 systems feature Nady's proprietary companding and low noise circuitry for an industry best 120 dB Dynamic Range, and the clearest, most natural sound available in wireless today.

Using this Manual

This booklet gives instructions for the operation of the UHF 16 systems, including the UB-16 Bodypack Transmitter, and the UH-16 Handheld Microphone Transmitter. Please read this instruction booklet completely before operating your system, and refer to the Nady UHF 16 Frequency Guide for the frequency band(s) and channels utilized by your system.

This manual will first explain the benefits of the UHF 16 and then will take you step by step on how to operate your new system. Each section will give you detailed information. Also, included in this manual is the frequency selection chart, complete system specifications, and servicing information.

B. SYSTEM FEATURES

UH-16 Transmitters

Choice of transmitters: UH-16 handheld or UB-16 bodypack, both 16-channel selectable

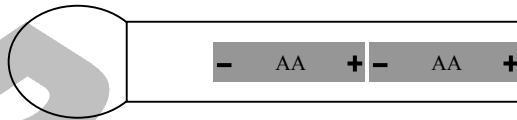
- UH-16 and UB-16 both operate on 2 AA batteries for the longest reliable and economical battery life.
- UH-16 handheld is a sleek, durable unit with internal antenna (with no archaic, unattractive antenna protrusion) and the superior Nady DM-10D neodymium dynamic cartridge for clear, powerful audio, maximum feedback rejection, and minimal handling noise.
- UB-16 bodypack is a versatile unit with unique 3-way input switch allowing it operation selectively as an instrument, lavalier mic, or headworn mic transmitter (with convenient DC phantom powering in the mic settings for condensers). An input level control allows optimal audio gain adjustment, and a locking 3.5 mm jack provides secure connection to the instrument cable, lavalier or headworn mic cord.
- Both the UH-16 and UB-16 transmitters feature OFF/STANDBY/On controls, low battery LED indicators, and offer easy channel selection via UP/DOWN buttons and a 2-segment LED Channel display.

C. OPERATING INSTRUCTIONS

UH-16 Handheld Microphone Transmitter

1. *Powering the Transmitter*

Slide open the **BATTERY COMPARTMENT COVER (12)** and remove, exposing the **BATTERY COMPARTMENT (14)**. Insert 2 fresh **AA ALKALINE BATTERIES (15)**, observing the correct polarity as marked, and slide the **COVER** back, closing the **BATTERY COMPARTMENT**.



Two fresh alkaline AA Batteries can last up to 12 hours in use, but in order to ensure optimum performance, it is recommended that you replace the batteries after every 8-10 hours of use.

All controls are at the base of the microphone. Turn on the UH-16 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 dead or low batteries, the LED will either not go on at all, or will stay on continuously, indicating that the batteries should be replaced with fresh ones. To preserve battery life, turn the transmitter off when not in use. The channel number on the **CHANNEL LED DISPLAY (18)** will extinguish in 10 seconds. The activity indicator “•” or “—” LED will remain on.

2. *Selecting the Operating Frequency*

In order for the system to operate properly the same channel (frequency of operation) must be selected for the UH-16 transmitter as was chosen for the UHF-16 receiver. Press either the **UP** or **DOWN CHANNEL SELECT BUTTON (17)** until the channel number indicated on the 2-segment **CHANNEL LED DISPLAY (18)** matches that of the UHF-16 receiver.

3. *Selecting the Tone Squelch™ Mode*

Hold both the **UP** and **DOWN BUTTONS (17)** at the same time for 1 second. The Tone Squelch™ will cycle from On to Off. See the **CHANNEL DISPLAY AND UP/DOWN BUTTON OPERATION** section below.

4. *Locking the Keyboard*

To avoid accidental reconfiguration of the Channel setting or Tone Squelch™, the keyboard can be locked by holding both the **UP** and **DOWN BUTTONS (17)** at the same time for 3 seconds. See the **CHANNEL DISPLAY AND UP/DOWN BUTTON OPERATION** section below.

5. *Microphone Operation*

The microphone is now ready to use. The **RECEIVED RF LEVEL (11a)** icon and either the **A** or **B DIVERSITY STATUS ICONS (11b)** on the UHF-16 receiver should now be lit, indicating a received signal from the transmitter. The receiver **MUTE LED INDICATOR (X)** should be off. When ready to speak, slide the **OFF/STANDBY/ON SWITCH (15)** to the ON position. Adjust the volume of the receiver as per the **Audio Output Microphone Connection** section of the above UHF-16 receiver instructions. *(Note: Observe care in selecting P.A. volume, transmitter location and speaker placement so that acoustic feedback, howling or screeching, will be avoided.)*

The UHF-16 receiver is equipped with an **AF DISPLAY (11c)** icon, which displays up to 4 segments, depending on the strength of the audio signal from the transmitter. Occasional flickering of the 4th bar segment of this display on loud inputs to the transmitter is normal. If this segment displays continuously, and/or distortion is heard, decrease the volume to the transmitter. Due to the wide available dynamic range, generally no adjustment will ever be needed for the transmitter input gain. There is a control under the mic ball assembly available for rare cases where it's desirable to make an input gain adjustment. For instructions on how to access this internal control, please contact the Nady Systems Customer Service Department. See **SERVICE** section below.

(Note: Attn handheld mic users. Microphone element 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.)

Cautions

1. Feedback

Observe care in selecting P.A. volume, transmitter location and speaker placement so that acoustic feedback, howling and screeching, will be avoided. Please also note the pickup pattern characteristics of the microphone selected. Omnidirectional mics pick up sound equally from all directions, and are prone to feedback if not used carefully. Unidirectional mics are more resistant to feedback, but pick up sound sources best that are directly in front of the mic. Also, mics 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 mics such as handheld or headworn models that are used close to the mouth.

2. Microphone Damage

Note: headset and lavalier mic users. Microphone element 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.)

3. No Audio

If the receiver is configured for Tone Squelch™ mute the transmitter must also be configured to send the tones, otherwise the receiver audio will remain muted.

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D. FREQUENCY GUIDE

The UHF 16 system is available with a choice of three frequency bands, each with 16 user-selectable frequencies. Select the band and frequencies appropriate to the area/country in which the system is to be used.

Channel	U.S.	CE	CE
	Band 1	Band 2	Band 3 (this list will change)
1	726.00 MHz	793.40 MHz	845.60 MHz
2	726.40 MHz	794.00 MHz	846.00 MHz
3	726.90 MHz	796.60 MHz	846.50 MHz
4	728.20 MHz	799.50 MHz	847.10 MHz
5	729.40 MHz	801.10 MHz	847.80 MHz
6	730.60 MHz	802.80 MHz	848.80 MHz
7	732.50 MHz	804.90 MHz	850.90 MHz
8	734.50 MHz	805.85 MHz	851.85 MHz
9	735.90 MHz	807.45 MHz	853.45 MHz
10	736.60 MHz	808.85 MHz	854.85 MHz
11	737.40 MHz	810.05 MHz	856.05 MHz
12	739.70 MHz	812.55 MHz	858.55 MHz
13	741.40 MHz	813.35 MHz	859.35 MHz
14	742.50 MHz	816.05 MHz	862.05 MHz
15	744.10 MHz	817.60 MHz	863.60 MHz
16	745.90 MHz	819.05 MHz	864.05 MHz

E. CHANNEL DISPLAY AND UP/DOWN BUTTON OPERATION

1. UH-16 Transmitters

Operation of Channel Display and Up and Down buttons, Keyboard Lock, and Tone Squelch™

a. *Changing the Channel Assignment*

Press Up or Down button to change channels.



Channel #

The Channel number indicator will vanish after 10 seconds. The Tone Squelch™ indicator and Keyboard Lock indicator will show the transmitter is On.

b. *Selecting Tone Squelch™ Mode*

Hold both Up and Down buttons at the same time for 1 second. Tone Squelch™ will cycle from On to Off.

If the receiver Tone Squelch™ is enabled, it must also be enabled on the transmitter otherwise the audio will remain muted.



Tone Squelch™
Tones On



Tone Squelch™
Tones Off

c. *Selecting Keyboard Lock*

Hold both Up and Down buttons at the same time for 3 seconds. Keyboard lock will cycle from Locked to Unlocked.



Keyboard Locked

F. SPECIFICATIONS

UHF 16 System

Operating Frequency Range:	16 channels switchable pre-programmed bands up to 20 MHz wide in the 726-863 MHz range (country dependent)
Freq. Synthesized:	PLL system with frequency stability <0.005%
Frequency Response:	30 HZ-15 KHZ ±3 dB
Dynamic Range:	120 dB
Harmonic Distortions:	<0.5%
Modulation:	FM ±25 KHz nominal
Operating Range:	250 feet typical (depending on site conditions)

up to 500+ feet optimum line of sight

UH-16 Transmitters

Models Available: UH-16 handheld mic, UB-16 bodypack

RF Output Power: 1 mW-50 mW max (country and band dependent)

Harmonic and Spurious Emissions: - 50 dB

Audio Input Level with ± 25 KHz nom. deviation:

UH-16: 24 mV RMS (nom.)

UB-16: 225 mV (Instr.), 150 mV (HM), 75 mV (Lav)

Input Impedance: UH-16: 10K Ohms

UB-16: 200K Ohm (Instr.), 10K Ohms (Lav), 20K Ohms (HM)

Controls: UH-16: Off/Mute/On switch, Channel Select Up/Down buttons
UB-16: Off/Mute/On switch, Channel Select Up/Down buttons,
Input Level Control, 3-way input select switch for: lavalier, head
mic, or music instrument

LED Indicator: Unit "ON" (single flash), Low Battery Alert (steady),
Selected Channel Display, and Transmitter Active.

Connectors: UH-16: None

UB-16: Locking 3.5 mm mini jack

Antenna Type: UH-16: Integral

UB-16: External permanent, 3 inch

Battery Type: 2 X AA alkaline

Battery Life: 8-12 hours nominal

Dimensions: UH-16: 8.75" x 1.4" (222 x 36 mm)

UB-16: 4.0" x 2.39" x 0.9" (102 x 61 x 23 mm)

Weight: UH-16: 6.9 oz (193g)

(w/o batteries) UB-16: 3.2 oz (89g)

G. SERVICE FOR YOUR NADY WIRELESS SYSTEM

(U.S.) If you are experiencing operational problems with your system, check out the support page on the Nady website: www.nadywireless.com for help and for contacting the Nady Service Department. Should your Wireless System require service, you must contact the Nady Service Department at 510.652.2411 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 package. Cashiers' check or money order is enclosed (if not prepaid with credit card), and 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. For service of a unit under Warranty follow the instructions of your Warranty Card regarding Warranty Service.

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

DO NOT ATTEMPT TO SERVICE THIS UNIT YOURSELF, AS THAT WILL VOID YOUR WARRANTY.

NOTE: OPERATION OF THIS DEVICE IN THE U.S. IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. THIS DEVICE MAY NOT CAUSE INTERFERENCE, AND
2. THIS DEVICE MUST ACCEPT INTERFERENCE, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION OF THE DEVICE.

Preliminary