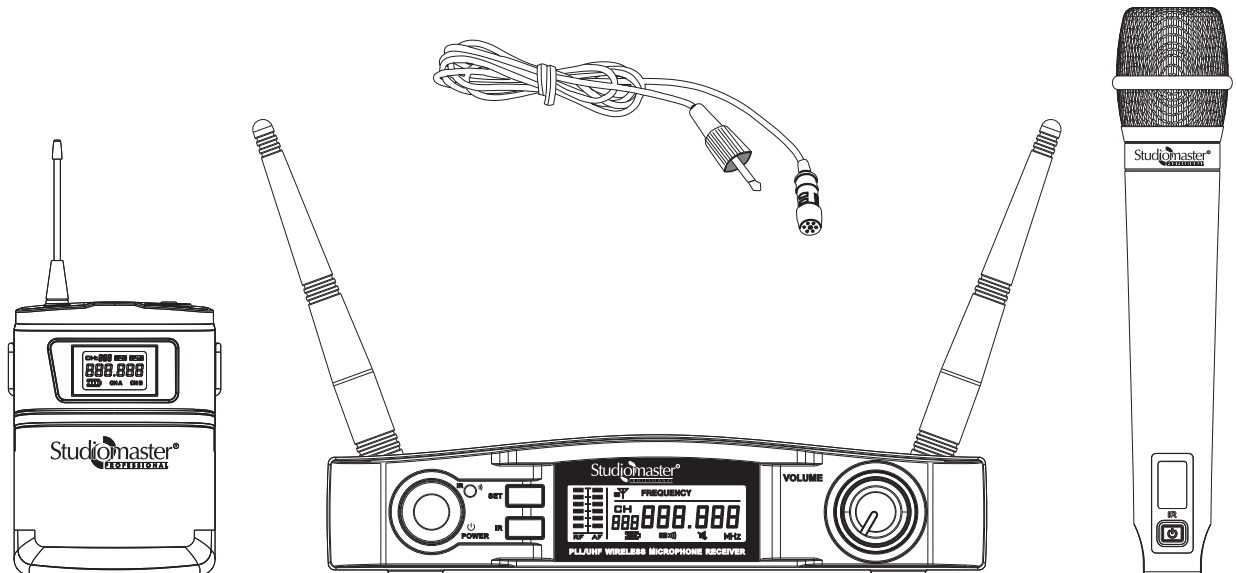


Stu**di**omaster[®] PROFESSIONAL

NT Series

Professional UHF Wireless Microphone Systems



The Studiomaster Professional NT Series is a high quality UHF Wireless technology system engineered for the most demanding touring environments & installations. This NT Series Wireless systems offers unprecedented flexibility & versatility. To ensure optimum performance & safety, please follow this instruction manual carefully. Please retain this manual for future reference. For any complaint, feedback or testimonials please contact our distributor / dealer.

- 1.....Features
- 2.....Systems Options
- 3.....Operating Instructions
- 4.....Basic Troubleshooting
- 5.....Technical Specifications
- 6.....Safety Instructions

1. Features

NT-50 RECEIVER

- High Quality UHF Wireless Microphone System.
- Single Fixed Frequency.
- Backlit Display for Frequency Indication.
- Balanced XLR and Unbalanced 1/4" Jack Output.
- Power On Button & Indication.
- Can be powered by Power Bank (standard USB connector).
- Rotary Volume Control with Blue LED RF Indication Ring.

NT-50 TRANSMITTER

- Anti-roll Microphone Grille Design.
- Clear and Crisp Voice Pickup.
- Backlit Display for Frequency Indication.
- Power on/off push button.

2. System Options

Model:

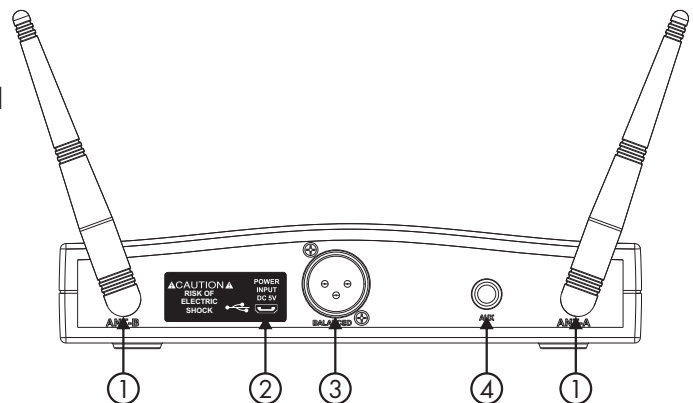
- NT - 50H (Handheld)
- NT - 50L (Lapel)
- NT - 60H (Handheld)
- NT - 60L (Lapel)

3. Operating Instructions

3.1 Receiver Description: Front & Rear Panel

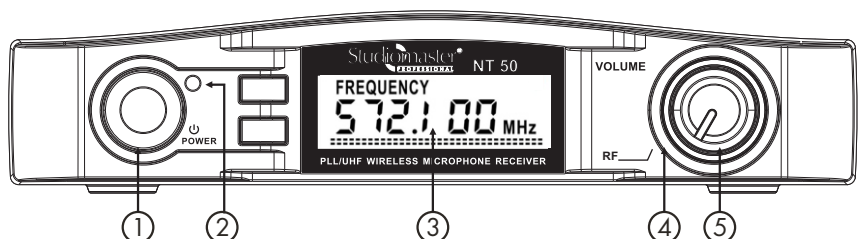
Rear Panel NT-50, NT-60

1. **Antenna:** The antenna receives signals from the transmitter. For better signal strength, keep the antenna fully extended.
2. **Power Jack:** This standard micro USB connector is provided for 5V DC input voltage to power up the unit.
3. **Balanced Audio Output:** This 3-pin XLR male connector is provided to connect to the input of a mixer/amplifier/powered speaker.
4. **Aux Out:** This 1/4" (6.35mm) unbalanced TRS female connector is provided to connect the Aux out to the input of a mixer/amplifier/powered speaker.



Front Panel NT-50

1. **Power ON/OFF Switch:** It is used to switch the receiver ON/OFF.
2. **Power ON LED:** This RED LED glows to indicate the power ON status of the receiver.
3. **Display:** The screen is provided to display the fixed channel frequency.
4. **LED Ring:** This Blue LED ring indicates power on status and availability of the transmitter.
5. **Volume Control:** It is used to control the audio output signal level from the receiver.



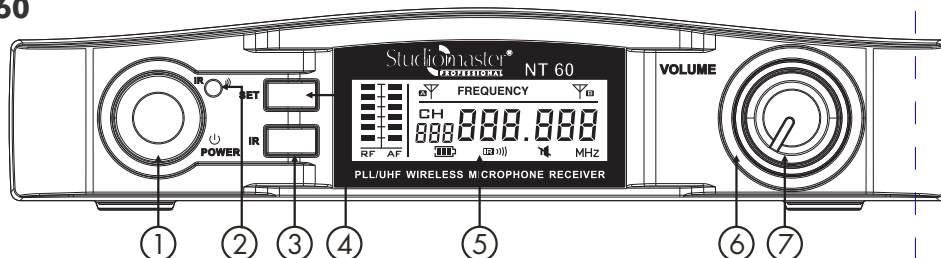
NT-60 RECEIVER

- High Quality UHF Wireless Microphone System.
- 16 Changeable Frequencies.
- Easy Setup via Infrared (IR).
- Backlit Display for Frequency, Channel, RF, AF, Mute & Transmitter battery level Indication.
- Balanced XLR and Unbalanced 1/4" Jack Output.
- Power On Button & Indication.
- Can be Powered by Power Bank (standard micro USB connector).
- Rotary Volume Control with Blue LED RF Indication Ring.

NT-60 TRANSMITTER

- Anti-roll Microphone Grille Design.
- Clear and Crisp Voice Pickup.
- Backlit Display for Frequency Indication, Channel & Transmitter battery level Indication.
- Selector to Choose Between the 16 Preset Frequency Channels on-the-fly.
- Power On/Off Push Button.

Front Panel NT-60



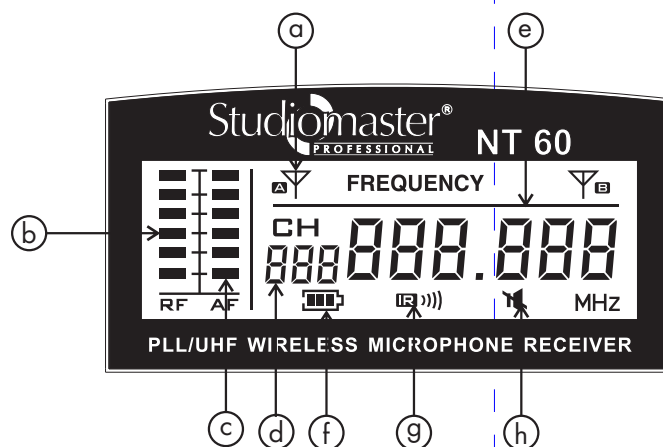
- 1. Power ON/OFF Switch:** It is used to switch the receiver ON/OFF.
- 2. IR Sensor:** The IR sensor is used for transmitter synchronization.
- 3. IR Switch:** Long press the IR switch to match (synchronize) and set the frequencies between the transmitter and receiver.
- 4. Set Switch:** Long press the set switch to enter frequency setting menu and single press to switch between all the 16 preset channels.
- 5. Display:** This LCD screen displays the selected channel, Frequency, RF and AF reception level, Mute and Battery indication.



Last saved setting (after power ON)



Display (OFF)



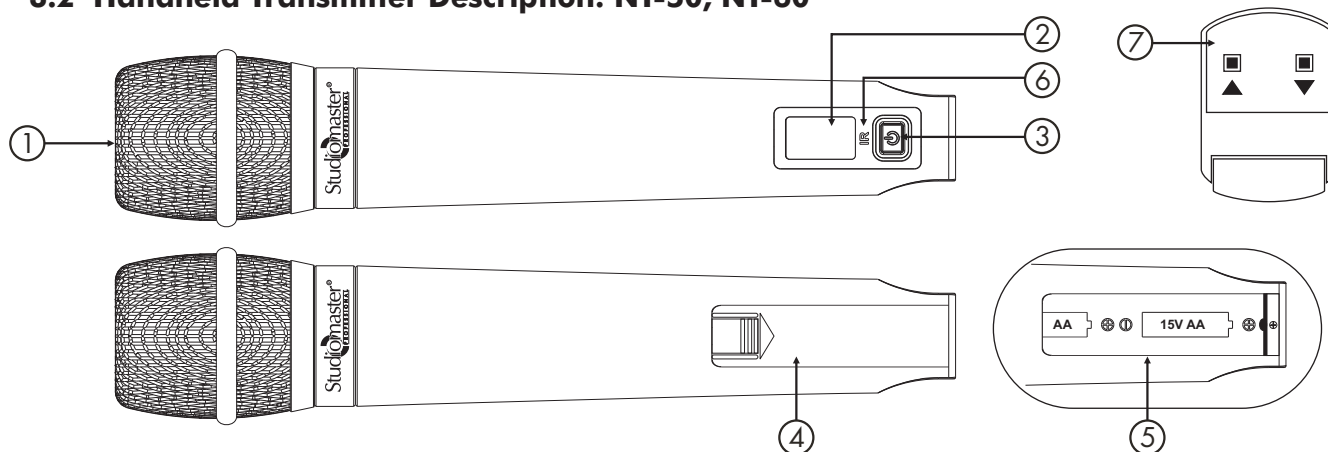
- Antenna symbol represents the reception from the transmitter.
 - RF Bargraph shows the transmitter reception level (strength).
 - AF Bargraph shows the audio level from the transmitter.
 - These 3 digits indicate the preset channel number from 001 to 016.
 - These 6 digits indicate the actual operating frequency of the respective/selected channel from 001 to 016.
- Please refer to the following table for the channel number & respective operating frequencies.

CH. No.	Frequency	CH. No.	Frequency	CH. No.	Frequency	CH. No.	Frequency
001	512.300	005	514.600	009	524.100	013	530.100
002	512.600	006	517.000	010	525.500	014	533.300
003	513.000	007	518.500	011	527.200	015	534.600
004	513.500	008	520.300	012	528.200	016	535.400

- It indicates the battery-level of the transmitter.
- This symbol flashes when the receiver is searching/synchronizing with the receiver via IR (Infrared).
- This symbol indicates the Mute status of the transmitter. It is visible in following conditions.
 - When the transmitter is off.
 - When the transmitter battery is dead.
 - When there are no batteries inserted into the transmitter.
 - Either the transmitter or receiver channel/frequency is different.

- 6. LED Ring:** This Blue LED ring indicates power on status of the transmitter.
- 7. Volume Control:** It is used to control the audio output signal level from the receiver.

3.2 Handheld Transmitter Description: NT-50, NT-60



1. **Grill:** It protects the capsule from damage. It also acts as an effective wind & pop filter.
2. **Display:** The display on the handheld transmitters of the NT-50 & NT-60 series show different useful operating parameters as mentioned below.
NT-50: It displays the fixed channel frequency.



Transmitter ON



Transmitter OFF

NT-60: It displays the selected channel number, frequency and battery indication.



Power ON



Transmitter ON



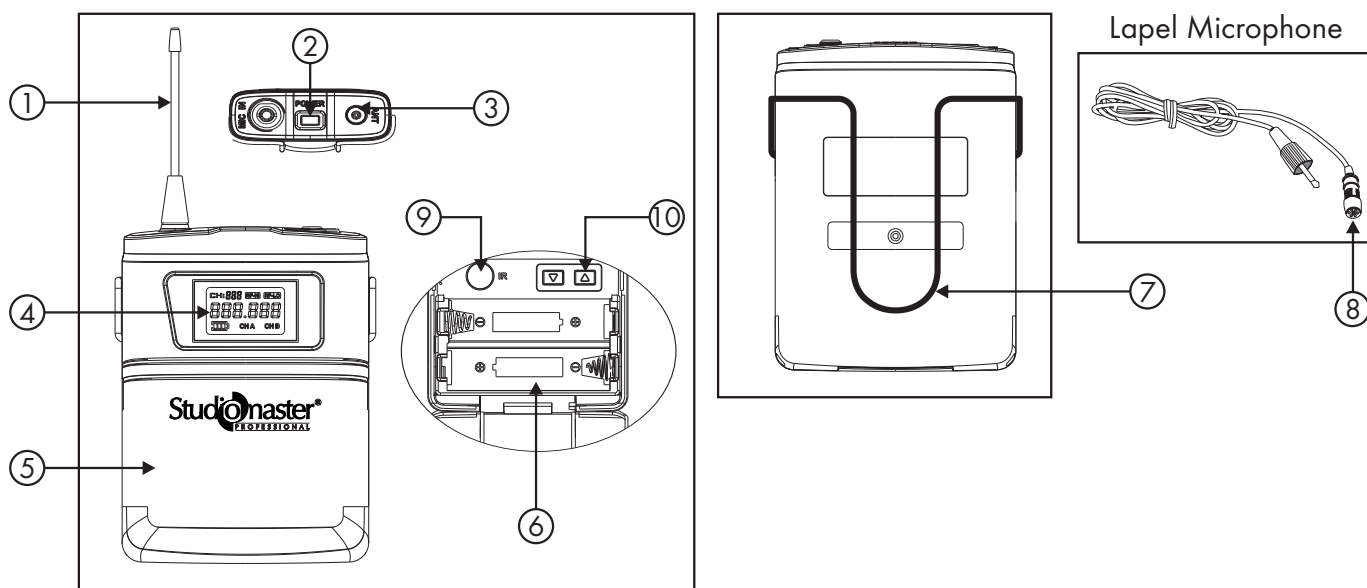
Transmitter OFF

3. **Power ON/OFF Switch:** Long press to switch the microphone ON or OFF.
4. **Battery Cover:** Slide down the battery cover to access battery compartment.
5. **Battery Compartment:** Use 2 x 1.5V AA batteries to power Handheld Microphone.

Only for NT-60:

6. **IR:** This is the IR (Infrared) receiver of the transmitter.
7. **Channel Selector Button:** Located at the bottom panel of the transmitter, these Up/Down buttons are used to quickly toggle and choose between the 16 preset frequency channels.

3.3 Body Pack Description



1. **Antenna:** This is the transmission antenna of the body pack transmitter.
2. **Power ON/OFF Switch:** Long press to switch the microphone ON or OFF.
3. **Mic Input:** Input socket to connect the supplied lapel microphone.

4. **Display:** The display on the body pack transmitters of the NT-50 & NT-60 series show different useful operating parameters as mentioned below.

NT-50: It displays the fixed channel frequency.



Transmitter ON



Transmitter OFF

NT-60: It displays the selected channel number, frequency and battery indication.



Power ON



Transmitter ON



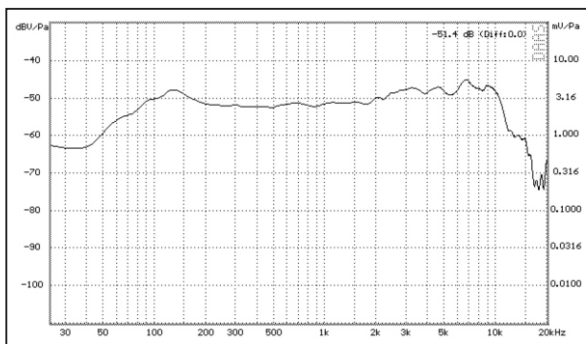
Transmitter OFF

5. **Battery Cover:** Open downward for access to the battery compartment.
6. **Battery Compartment:** Use 2 x 1.5V AA batteries to power Bodypack unit.
7. **Belt Clip:** To hang on belt.
8. **Microphone (Lapel).**

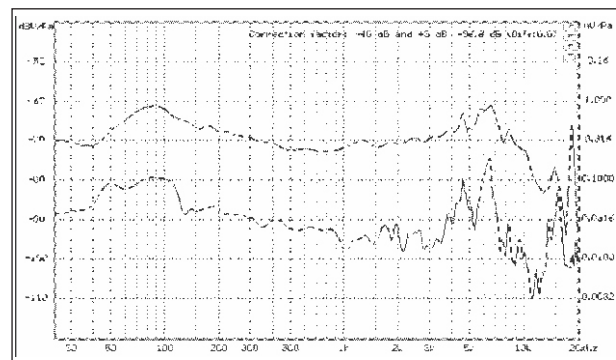
Only for NT-60:

9. **IR:** This is the IR (Infrared) receiver of the transmitter.
10. **Channel Selector Button:** Located in the battery compartment of the transmitter, these Up/Down buttons are used to quickly toggle and choose between the 16 preset frequency channels.

3.4 Frequency response curve for Transmitter



NT-50 Transmitter



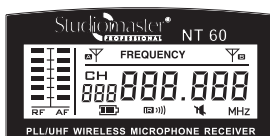
NT-60 Transmitter

3.5 Operating the NT-50 Wireless Microphones System

1. **Check Connections:** Confirm if the connections between the receiver and the mixer/amplifier/powered speakers are correct. Turn down the volume on the mixer/amplifier/powered speakers.
2. As the NT-50 is a single channel fixed frequency wireless microphone system, it auto connects as soon as the transmitter and receiver are powered up.

3.6 Operating the NT-60 Wireless Microphones System

1. **Check Connections:** Confirm if the connections between the receiver and the mixer/amplifier/powered speakers are correct. Turn down the volume on the mixer/amplifier/powered speakers.
2. **Receiver Settings:** Switch on the NT-60 receiver, it will display the last selected channel number. There will be no RF & AF bargraph indication or audio because the transmitter is OFF.



Receiver Display
(When power ON)



Receiver Display



Transmitter is Off

3. **Transmitter Settings:** Switch on the transmitter. The receiver display shows the RF bargraph reception level, as shown below.

- If the transmitter and receiver frequencies are same.



Receiver Display



Transmitter Display

- If the transmitter and receiver frequencies are different.

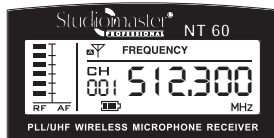


Receiver Display

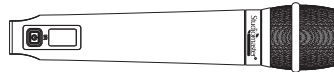


Transmitter Display

4. Testing the Transmitters:



Receiver Display



Transmitter: No Audio

- When the microphone is active, it is indicated by signal strength (RF) on the receiver.



Receiver Display



Transmitter: Audio

- When the user speaks, the audio level will be indicated by AF reception level (AF).

5. Setting Channel frequency:

There are two ways to set the transmitter or receiver frequencies, follow the steps given below.

- 1) Auto Selection
- 2) Manual Selection

1) Auto selection:

- Suppose the receiver frequency is at 512.300 (CH 001) and the transmitter frequency is at 527.200 (CH 11) as shown in figure.



Receiver Display

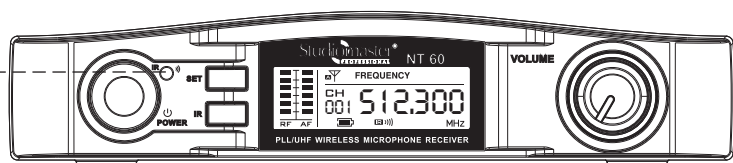


Transmitter Display

- Bring the transmitter and receiver closer and ensure their IR sections are facing each other.
- Long press the IR switch. The transmitter will auto select the frequency of receiver.
- During the synchronization process, the IR symbol flashes on the receiver's display.



NT-60 Transmitter



Before Transmitter Synchronisation



After Transmitter Synchronisation

2) Manual selection:

Receiver:

- Suppose the receiver frequency is at 512.300 (CH 001) and the transmitter frequency is at 527.200 (CH 011) and you want to set the receiver frequency same as transmitter i.e. 527.200.

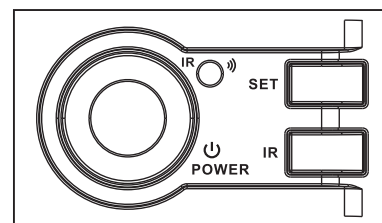


Receiver Display



Transmitter Display

- Change the channel number on the NT-60 receiver unit using the Set button.
 Step 1: Long press the Set button to enter the frequency select function.
 Step 2: Single press the Set button to switch between channels 001 to 016.
 Step 3: After selecting the required frequency, the channel number icon on the receiver will flash 6 times and the chosen frequency is set.



Before frequency set



Receiver Display



Transmitter Display

After frequency set



Receiver Display



Transmitter Display

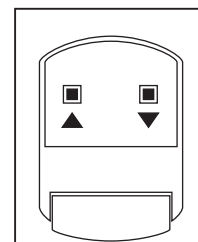
Transmitter:

- Find the channel selector buttons on the transmitter. On the handheld transmitter, it is located on the bottom panel. On the body pack transmitter it is located inside the battery compartment.

Step 1: Long press the channel selector buttons (UP/DOWN) to enter the frequency setting Menu.

Step 2: Single press to switch between 001 to 016 channels.

Step 3: The channel number icon on the transmitter will flash 6 times and the chosen frequency is set.



Usage Tips

- Make sure you can always see the receiver antenna from the transmitter's position.
- Keep the distance from the transmitter to the receiver as short as possible.
- Avoid obstructions between the transmitter and receiver.
- Perform a "Walk Test" before the performance or presentation. If dead spots are found, change the location of the receiver. If dead spots remain, mark and avoid them.

4. Basic Troubleshooting

Problem	Solution
No Voice; (No signal on receiver)	<ul style="list-style-type: none"> • Check whether power switches of transmitter & receiver are ON. • Check whether the battery connections are correct & battery polarity is right in transmitter. • Make sure that there is no obstruction between the antenna & the transmitter.
No Voice; (Signal is normal)	<ul style="list-style-type: none"> • Check whether the level control of the receiver is set enough. • Check whether the connection between receiver & mixer, mixer & amplifier or amplifier & speaker are connected. Also check mixer or amplifier volumes are ok.
No Voice; (RF signal is normal but AF signal is weak)	<ul style="list-style-type: none"> • Check whether the transmitter battery is fully charged. • Check whether the level control of the receiver is set enough.
When transmitter is ON, there is noise or interruption in the receiving signal.	<ul style="list-style-type: none"> • Check whether the battery is charged fully. • Eliminate the RF source of the disturbance nearby which causes interference. • If the signal is too weak, place the receiver closer to transmitter as far as possible.

5. Technical Specifications

RECEIVER

MODEL NAME	NT-50	NT-60
Operating Frequency Range	583-683MHz	
Receiving Frequency	Fixed	Variable
Frequency Response	40Hz-16KHz	
Nominal deviation / peak error	± 15KHz	
Total harmonic distortion	<1%	
Dynamic Range	> 100dB	
Power Requirement	DC 5V with standard USB connector	
Current Consumption	180mA	
S/N Ratio	90dB	

TRANSMITTER

Carrier frequency	583-683MHz
Frequency stability	+0.03%
Frequency response	40Hz-16KHz
Total Harmonic radiation	<0.02%
Dynamic Range	>100dB
Use Battery	2 x 1.5V (AA)
Current Consumption	100mA
Battery Life	5-7 hours

6. Safety Instructions

- Keep the wireless receiver in a good location to ensure good signal strength.
- Please keep the product away from direct sunrays & rain.
- Please keep the product away from heavy magnetic or electromagnetic fields, it could affect product performance.
- Please switch off when removing the batteries.
- Please remove the batteries/ power supply when the product is not being used for a long time.
- Do not open any of the components yourself, for repairs please contact an authorised Studiomaster Professional dealer.
- Do not use systems with the same frequency at the same place, please separate them by a considerable distance.

 +91-22-42869000 +91-22-42869001	<p>Subscribe to our Channel</p>   bit.ly/SMPYT-S
 WhatsApp +91-8879028079	
 info@audioplus-india.com	


 studiomaster professional

* Design and specification are subject to change without notice



is a registered trademark of Audioplus in India. © Copyright Audioplus, 2008. All rights reserved. Any unauthorised reproduction or use of logos, images or design elements is strictly prohibited by law. No part of the compilation may be reproduced in any manner or translated without written permission.

Brought to you by:
AUDIOPLUS

A1/A2, Giriraj Industrial Estate, Mahakali Caves Road, Andheri (East), Mumbai - 400 093 India.
 Tel.: +91-22-42869000 / 001 Whatsapp.: +91-8879028079 E info@audioplus-india.com
 W www.audioplus-india.com / www.studiomasterprofessional.com