



**PMU 30    PMU 31    PMU 32**

# OWNER MANUAL

200 Channels UHF Wireless microphones



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**Precautions:**

Caution: When using any electric product, precautions should always be taken, including the following:

- 1) Read carefully all instructions before using the product.
- 2) To reduce the risk, a strict supervision is necessary when the product is used near children.
- 3) Don't use the product near to water sources like sinks, kitchens, wet floors, pools, or similar or when raining.
- 4) This product should be site away from heat sources such as radiators or any other product that generate heat.
- 5) This product should be connected to a power supply line only of the type described on the operating instructions. Check always the status of the power cable.
- 6) Unplug power supply when left unused for a long period of time. Don't draw the cable but pull out the plug.
- 7) Make sure that power switch can always be easily reached.
- 8) Please refer to authorized or qualified personnel in case of malfunction
- 9) DON'T operate on the product, except operation explained on the user's manual. Please refer to authorized and qualified personnel for any other operation.
- 10) Caution: Don't place objects on the product's power cable or place it in a position where it could be damaged or cause interferences. Improper installation could cause fire risk and/or personal injury.

**Warnings:**

Batteries can explode if positioned with polarity inverted.  
Don't expose batteries to high temperatures  
Always refer to batteries manufacturer instructions  
Dispose of the batteries appropriately

**Service**

All Audio Design PRO products have been inspected and tested before leaving the factory and, if properly used, they will work for many years. However, in case of any problem, please proceed in the following way:  
Contact your dealer and inform about the defect you found  
In case it won't be possible to solve the problem with the dealer, the product needs to be returned, preferably in its original packaging or in a proper packing to protect it during the transport. Purchase documents must be produced too.  
Your dealer will arrange the shipment to our after sales service.

**CE Conformity:**

Audiodesign Pro products comply with existing directives and standards.

**Common transmitter features (hand held microphone and body pack)**

- Working frequencies: from 640,000 to 690,000 MHz at steps of 0,250 MHz = 100 + 100 Channels
- 
- Adjustable transmission power (5 or 10 mW)
- 
- Power supply with 2 batteries (AA)
- 
- Battery charge indicator
- 
- MUTE function (hand held microphone only)

**Receiver features:**

- Volume adjustable separately
- 
- XLR Output (balanced signal) for Mic A
- 
- XLR Output (balanced signal) for Mic B
- 
- Jack 6,3 Mixed Output (unbalanced signal)
- 
- Removable antennas with BNC connector

### Matching the body pack transmit with the receiver:

- 1) Choose the desired frequency (channel) to connect the transmitter and the receiver
- 2) Set the frequency (channel) to the receiver (see page 6)
- 3) Set the same frequency on the body pack transmitter (see page 9)

N.B .: There are two groups of 100 frequencies each, whose channels are always displayed on the body pack transmitter display always and only from 00 to 99.

Frequencies ranging from 635,000 to 659,750 MHz refer to Mic A (left side of the receiver display) while the ones from 660,000 to 684,750 MHz refer to Mic B (right side of the receiver display)

### Match body pack transmitter with receiver, automatically by using infrared port.

If you want to match one of the two Mic A or Mic B frequencies, visible on the receiver display, to the body pack transmitter, proceed as follows:

- 1) Turn on the body pack transmitter (see page 9)
- 2) Place the top side (with the infrared LED (D)) facing the receiver display, at a distance not exceeding 30 cm.
- 3) Turn on the receiver and press the "SELECT" button 1 or 2 times, to select the Mic A frequency (the CH xx will flash in the lower left part of the display) or the Mic B frequency (the CH xx will flash in the bottom right part of the display).
- 4) Press "SET" until the IR write flashes.
- 5) Press immediately the up or down arrow button and you will see a bar that moves from left to right 9 times, next to the IR write.
- 6) After this procedure, the body pack transmitter display will report the same frequency as the receiver and, above the "RF" letter of Mic A or Mic B, will show the signal level of the transmitter signal reception. At the same time, the letter A or B will appear alongside the corresponding antenna symbol.

### 200-channel UHF wireless microphone system

The system, depending on the item chosen, consists of:

- 1 Wireless microphones (Transmitter) in item PMU 31 or 2 in item PMU 30
- 1 Body Pack and head set microphones (Transmitter) in item PMU 31 or 2 in item PMU 32
- 1 2-channel Receiver
- 1 Signal Cable (Jack M mono 6.3 mm - Jack M mono 6.3 mm)
- 1 Power supply (13.5 V = 1A)
- 2 Antennas



### Inserting batteries into the radio microphone: (see pictures at page 7)

- 1) Unscrew the bottom of the microphone anticlockwise
- 2) Insert two 1,5 Volts NEW (AA size) stylus batteries according to the indicated polarity (see picture on page 7)
- 3) On the opposite side of the battery compartment, there is a selector to set the transmission power of the radio microphone: in LO position, the power is 5 mW (low power), in HI position the power is 10 mW (high power) . To set, use the tip of a pen gently positioned in the selector bracket (see picture on page 7)

If the distance between the transmitter and the receiver is about a few meters, we recommend using low power (so the batteries will last twice)

- 4) Replace the bottom of the microphone

### Mounting, connection and power on the receiver:

- 1) Antenna mounting: Take one of the two antennas and place its metal connector in front of one of the two metal connectors on the back and labeled "ANT-A" and "ANT-B". Push the antenna connector slightly and turn it clockwise until it enters. Continue to rotate the connector until it stops turning. Orient the antenna so that it is upright. Repeat this operation for the other antenna.
- 2) Insert the plug of the power supply into the rear socket marked "DC 13-15V»
- 3) With regard to the signal output of the two wireless microphones, there are two possibilities:
  - a) "MIX OUT" jack socket output offers, mixed, the signal from both microphones.
  - b) "BALANCED-A" and "BALANCED-B" sockets can be used, with two "XLR male - XLR female" cables, to get separate signals from Ch A and Ch B.
- 4) Insert the power plug into a 220 volt outlet
- 5) Turn on the receiver by pressing the "POWER" button: the display will light up and will appear for a few seconds the word "ON" and then all other writings will appear

**Power on / off, MUTE function and volume control of hand held wireless microphone:**

1) Hold the microphone and turn it on by pressing the gray button for 1 second (A): the display will light up and the word "ON" will appear for a few time and then the frequency (B) and the stylized icon of a battery with three squares inside it (C) that will indicate the battery charge status. In a few second, the display light will turn off. If you press shortly again the gray button the microphone will enter the MUTE function (1), (the microphone is still on but the voice is interrupted). Press the power button shortly to stop the MUTE function and return to normal operation.

**The receiver display** is divided into two parts: the left for the MIC A and the right for the MIC B. If the MIC A is ON, a mark "A" at the left of the antenna symbol (E) will appear.

The quality of the signal received by the receiver will be shown on the left of the display (F) with a series of 8 dashes; as more dashes are showed as greater is the signal intensity. In general, it should not be less than 4.

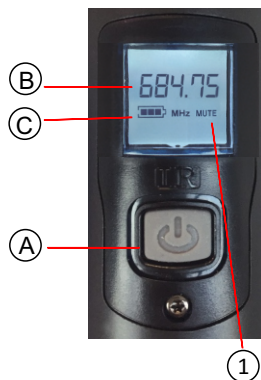
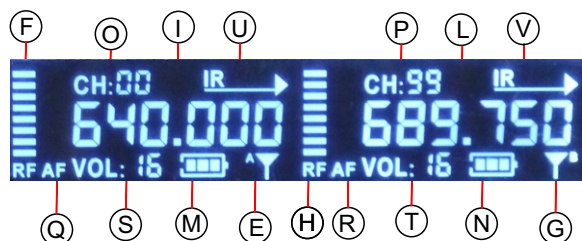
If the MIC B is ON, a mark "B" on the right of the antenna symbol will appear. The quality of the signal received by the receiver will be shown on the center of the display (H).

The display will also report for both MIC A and MIC B: the frequency (I) and (L), the corresponding channel nr (O) and (P), the battery status of each transmitter (M) and (N), the signal levels (Q) and (R).

The level varies with the variation of the speech or the chant and so if you are silent, no value is displayed (R) and finally the output volume (towards the mixer or to an active speaker) of the signals coming from the MIC A (S) and MIC B (T).

This volume can be adjusted as we will see later.

To the right of the IR writing (U) and (V) some dashes will appear when the radio microphone frequencies are set (see page 9).



**Turn on, change frequency (channel) power and sound level of body pack:**

1) Press and release the button (C) the display will light up and status information will appear:

- (F) Channel number and relative transmission frequency (L) expressed in Mhz
- (G) The volume of the microphone
- (H) The buttons are locked
- (I) The transmission power (5 or 10 mW)
- (M) Battery charge level

The display light will then turn off and to turn it on again just press and release the button (C)

2) To unlock the adjustment buttons you have to open the cover and press the SET (O) button until the lock symbol becomes open. N.B. if no button is pressed, after 5 seconds the block will reactivate.

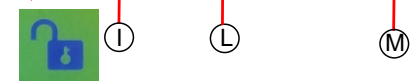
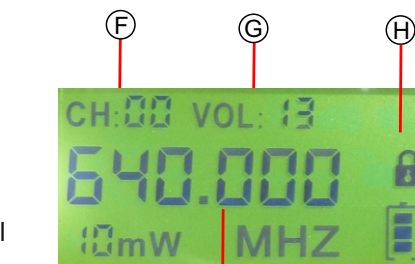
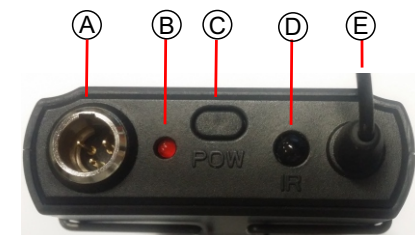
3) Once the buttons have been unlocked, pressing and releasing the SET (O) button, the frequency and channel showed will blink and using the up and down arrow buttons (P) you can select one of the 200 frequencies (or channels) available (from 00 to 99)

N.B. : If you keep pressed the up or down arrow buttons, the channel scrolling becomes faster.

4) Once the desired frequency (channel) has been found, stop pushing the buttons and, after 5 seconds, the transmitter will be ready.

5) If you want to change the power of the transmitter, once you have unlocked the buttons as explained above, press the SET (O) button until "0,5 mW" (I) or "10 mW" flashes, then press the up or down arrow button to find the desired power and release. After 5 second the choice will be set

6) If you want to change the volume of the microphone, once you have unlocked the buttons as explained above, press the SET (O) button until "VOL xx" (G) flashes, then press the up or down arrow buttons to increase or decrease the volume. (00 to 16)



**200 UHF channels body pack (transmitter)**

**Insert the batteries into the transmitter:**

- (1) Hold the transmitter with a hand from the clip side then, with the other hand, push where indicated and open the cover.
- (2) Insert two 1.5-volts NEW (AA-size) batteries according to the indicated polarity.
- (3) Close the cover.

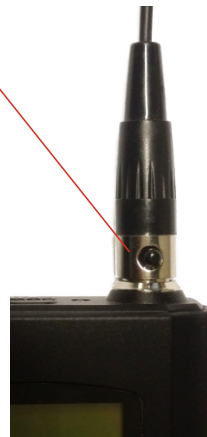
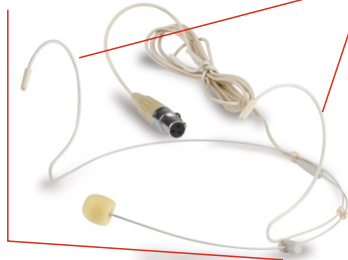


**Connecting the head set microphone:**

- (1) Insert the microphone connector into the transmitter, aligning the black button to the display side.
- To disconnect the connector, press the black button and then remove the connector.

**How to wear the microphone and its head set:**

- (1) Place the head set behind the head and make sure that the two arched parts are positioned around the ears.
- (2) Unscrew the knob to extend the microphone so that it is positioned on the cheek and near the mouth (NOT in front) Once fixed, tighten the knob.



- 2) To work, both the transmitter and the receiver must be on the same channel or on the same frequency, so, if the frequency indicated on both is not the same, go to page 6 if you need to set an hand held microphone or to page 9 if you want to set a body pack.

Once they are equal, talk or sing in the microphone by holding it about 2 cm in front of the mouth and while doing so, you will see on the receiver display the level of the audio signal sent by the transmitter to the receiver (Q) and (R).

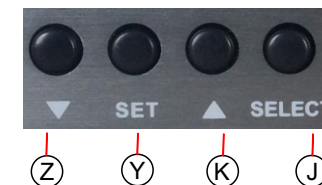
- 3) The output level of the signal of the MIC A from the receiver to the mixer or to an active speaker can be adjusted. Press the "SET" button and then press the "up arrow" or "down arrow" volume that you want. If you are using a mixer, check that the "PEAK" LED of the connected mixer channel doesn't switch on (if this happens, the sound would be distorted !!!)

Then adjust the mixer channel fader level to get the right level compared to the other channels.

If you are using an active speaker, adjust the channel gain and the general volume so that in the peaks do NOT turn on the "CLIP" or "LIMIT" LED of the active speaker amplifier (If so, the sound would be distorted !!!)

- 4) To turn off the microphone, press and hold the power button until "OFF" appears and the display will turn off.

N.B. As mentioned above, the battery charge status is reported on both the microphone and the receiver display. When using the radio microphone, it will be noticeable that the squares will go from 3 to 2 and then to 1 and, when the batteries are almost exhausted, will remain on the microphone display, only the empty battery symbol that will blink and the display will lights up to indicate that battery replacement is required.



**How to change the channel on the receiver (See pictures on pages 4 and 5):**

On the microphone display only the frequency is visible, while both the frequency and the corresponding channel number are visible on the receiver display.

For Mic A, the channels range from "00" to "99", which correspond to the frequencies from 635,000Mhz to 659,750 with steps of 0,250Mhz

For Mic B the channels always range from "00" to "99" but correspond to the frequencies ranging from 660.000Mhz to 684,750 always with steps of 0,250Mhz)

First you have to set the receiver's frequency (channel) and then copy it to the transmitter by following these steps:

- 1) Turn on the receiver by pressing the POWER button
- 2) Press the "SELECT" key (J) one or 2 times up to operate in the Mic A (S area blinking) or Mic B (T area blinking).
- 3) Press the "SET" key (Y) 2 times until both the frequency word and the letter "CH: xx" start blinking.
- 4) Press the "up arrow" or down arrow "button to select the new frequency (I) or (L) or channel you want (O) or (P); refer to the tables on the last page.
- 5) After 5 seconds, the frequency (channel) will be set (no longer flashing)

**To set the same frequency on the radio microphone automatically by infrared, turn on the radio microphone as described in the previous chapters:**

- 1) Place the microphone with the display facing the receiver and at a distance not exceeding 30 cm.
- 2) Press the "SET" (Y) button until "IR" flashes.
- 3) Press either the "up arrow" (K) or "down arrow" (Z) button, and you will see the right of the "IR" (U) or (V) a bar that moves from left to right to disappear and return from left to right for 9 times
- 4) After that, if the frequency is correctly combined, both the microphone and receiver will display the same value.
- 5) To turn off the receiver, press and hold the "POWER" button

**Receiver front panel**

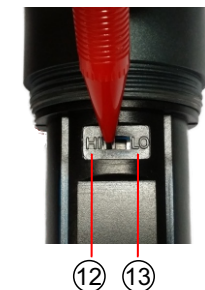
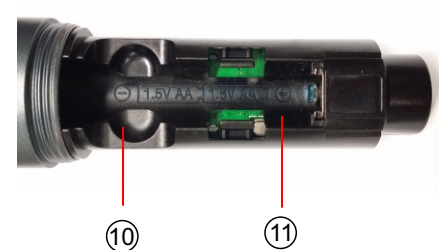


- (1) Parameters adjustment buttons
- (2) Mic A and Mic B Display
- (3) On / Off button



**Receiver back panel**

- (4) Receiver antenna connector Mic B
- (5) Output signal Mic B
- (6) Output signal Mic A + Mic B
- (7) Socket for external power supply
- (8) Output signal Mic A
- (9) Receiver antenna connector Mic A



**Hand held microphone (transmitter)**

- (10) Negative
- (11) Positive
- (12) High power transmission (10 mW)
- (13) Low power transmission (5 mW)