Operating Instructions

HX*iR* Hand Held Radio Microphone Transmitter

The HX*iR* is the latest innovative microprocessor controlled hand held transmitter from Audio Limited. The transmitter utilises inter-changeable, high quality condenser capsules from the Schoeps ™ Colette range, Thereby allowing a variety of applications where broadcast quality audio is required.

The transmitter incorporates a microphone suspension specially designed by Rycote ™, for Audio Limited, to minimize the handling noise.

The Hx*iR* can have up to 32 switchable frequencies over a 24MHz bandwidth.

The transmitter antenna has been integrated into the design of the battery compartment to enhance the elegant appearance. The TX is powered from a single "AA" type 1.5 V battery, allowing the transmitter to be used for up to two and a half hours continuously from a good quality alkaline battery. A lithium "AA" type battery is available allowing seven hours continuous use.

As with all previous products from Audio Limited, the transmitter has been designed for ease of use, with all user settable functions being controlled by the unique Switch*iR*.

Microphone Windshield

Microphone Grille

Microphone Capsule

Mounting

Transmitter Body

Infra-red Port

ON Button

ON / Overload Indicator

Battery Compartment

Battery Compartment Cover A A
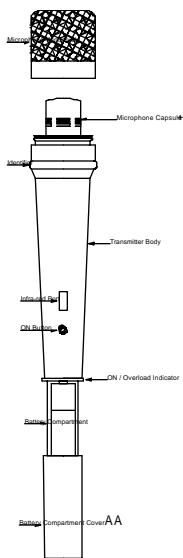
Microphone Capsule

Identification Ring

Transmitter Body

Infra red Port

On Button

On/Overload Indicator

Battery Compartment

Battery Cover

1) Battery Access

The HX*iR* uses a single AA 1.5V (LR6, MN1500) type alkaline battery
which is universally available.

Grip the battery compartment cover and slide it away from the body of the
HX*iR* to expose the battery compartment. Fit the AA battery with the
Positive terminal uppermost and the negative terminal at the sprung end.
Close the battery cover.
Do not twist the cover.

2) Switching the transmitter ON

Press and hold the grey "ON" button found below the infra red port, for one
second. A red LED will illuminate the translucent ring above the battery
compartment.

There is no "OFF" switch on the transmitter preventing the transmitter from being
turned off accidentally. The transmitter can only be turned off via the Switch*iR,* or
by disconnecting the battery.

To turn the transmitter off via the Switch*iR* [Subsequent or continuous pressing
of the "ON" switch will not have any effect on the transmitter function]:

Press **MENU** followed by **down arrow.** Align the front of the Switch*iR* with the
iR port on the transmitter and press **OK**

OFF
TX

3) Selecting the operating frequency

The Switch*iR* enables the user to check, and change the frequency setting
of the transmitter being addressed.

To check frequency

Step 1. Press **MENU**   - display shows

FREQUENCY
Fr
MHZ

Align front of Switch*iR* with infra red port of TX
Step 2. Press **OK**   - displays the set frequency of TX / RX
                              e.g. 857.950 MHZ
                         (Pressing the **OK** button downloads the
                          32 frequencies from the unit into Switch*iR*)

To Change Frequency

i) Follow **Steps 1 & 2.**

ii) Press **OK**   **-** display will alternatively flash between
                               frequency and channel number
                               e.g. ""857.95""   ""21""
                                      MHZ   CHANNEL

iii) Press **up/**   to scroll through any of the 32 frequencies
       down arrows   pre-programmed into the receiver or
   transmitter until desired frequency is displayed

iv) **Point** the Switch*iR* - directly at the infra red port of the transmitter.

v) Press **OK**   - to change the frequency. **Display will show the new frequency**
   of the transmitter.

4)   <u>Setting the Gain</u>

     To **Check** gain setting:

	AF LEVEL
i) Press **MENU** followed - display will indicate:	**AF**
by the **up arrow once**	TX

           Align front of Switch*iR* with infra red port of TX

	AF LEVEL
ii) Press **OK** - to view gain setting	**8**
on transmitter, e.g.:	TX
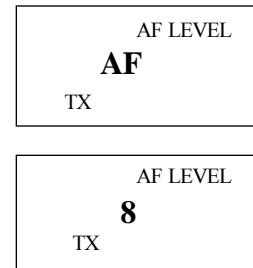
     To **Change** gain setting:

i) **Follow** the above **steps 1 & 2**
ii) Press **OK**   - the display will flash the ""AF LEVEL"" icon
iii) Press **up / down arrows**   - to select any one of ten gain settings
                                     once the desired gain setting is selected,
      Align front of Switch*iR* with infra red port of TX
iv) Press **OK**   - to set the new gain setting.

Note: Steps between gain settings are approximately 3 to 4 dB.

The "ON" indicator has a dual function.
The translucent ring above the battery compartment is normally illuminated while the transmitter is switched on. This red light will turn off indicating an overload if the microphone experiences a loud signal.

The gain control should be adjusted to suit the application. Set the gain position such that the overload indicator remains illuminated during normal speech.

The HxiR transmitter uses the same ultra low distortion, fast attack, fast decay overload compressor as found in the TX2020 pocket transmitter. In normal use, the gain should be set so that this compressor does not operate. Should an overload occur then the red LED will flash momentarily and the gain switch should be set lower. In the event that overloads occur, however, the only result will be compression rather than distortion. This means that if an interview is disturbed by unexpected aircraft or vehicles passing for example, an otherwise useless recording is rendered useable. The fast recovery of the compressor means that one does not have the problems of feedback associated with automatic gain controls in hand held radio microphone transmitters which are constantly varying their own gain.
With the wide dynamic range of the system, however, it is always possible to set the gain control so that the compressor never operates. It is present only for the unexpected.

5) Setting the Low Frequency Cut Filter

The LF cut filter gives approximately 10dB cut at 50Hz to reduce handling and wind n To **Check** status of low frequency filter:

i) Press **MENU**
ii) Press **Up arrow twice -** display will indicate

LF Cut
TX

Align front of Switch*iR* with infra red port of TX
iv) Press **OK** - to view the present status of the LF cut filter   e.g.:

On

To **Change** the **filter setting:**

i) Follow the **above steps**
ii) Press **OK**   - the display will flash ""On""
iii) Press **Up/down**
   arrows   - to toggle between the On / Off settings.
                Once desired setting is reached.
      Align front of Switch*iR* with infra red port of TX
iv) Press **OK**   - to set the new LF Cut status.

6)   Battery Status

The battery status of the transmitter is checked via the Switch*iR*

Battery Level Transmitter

To **Check** status of **battery** in transmitter:

i) Press **MENU**
ii) Press **Up arrow three times**   - display will indicate

	BAtt
TX RX	
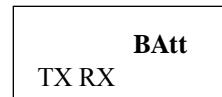
    Align front of Switch*iR* with infra red port of TX
iii) Press **OK** - display will show the battery status volts

The transmitter battery status is also conveyed to the receiver. When checking
The battery status via the receiver, the Switch*iR* display will alternate between the
Receiver voltage and the received transmitter battery status.

The display will indicate:-

	H
TX	
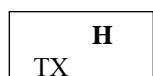
H – High / Good battery

	L
TX	

L – Low battery

	F
TX	
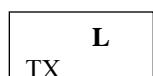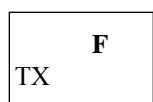
F – Fail / Replace battery

    Battery life - 2.5 hours typical with a good alkaline battery / - 7 hours lithium battery.

7)   Infra red Disable

    For live performances or situations requiring a higher degree of protection from an
accidental change of settings, the infra red port on the transmitter can be disabled.
This action will prevent all communication to the transmitter

    The only way to re-activate the infra red port is by disconnection of the battery, thereby
performing a hard reset.

    To disable the infra red port:

    i) Press **MENU**
    ii) Press **Down arrow twice** display will indicate   **'diSABLE " Ir ? '**

8) <u>Antenna</u>

The transmitter antenna is integrated into the battery compartment and therefore no external antenna is required.

9) <u>Microphone Capsule</u>

The HX*iR* transmitter utilises the high quality inter-changeable condenser capsules from the Schoeps ™ Colette range. The Hx*iR* is compatible with the full range of capsules and accessories in the range.

10) <u>Fitting capsule</u>

Unscrew the metal windscreen (1) from the top of the transmitter. Fit the appropriate capsule taking care not to over tighten the capsule (2). Replace the windscreen.

<u>Setting up the HX*iR*</u>

· Fit the battery
· Press "on" switch till indicator illuminates
· Check transmitter frequency corresponds to that of the receiver.
· Set gain
· Set LF Cut if required
· Check that the receiver's 'No signal' indicator is not illuminated.

<u>Holding the HX*iR*</u>

The HX*iR* should be held above the illuminated 'on' indicator ring (6). This will Enable the maximum power radiation from the integrated antenna in the transmitter compartment (7). Holding of the HX*iR* over the battery compartment (7) will impair the range of the transmitter, and should be avoided.

Note: The HX*iR* transmitter will retain the last settings of frequency, gain, LF status even if the battery is removed from the transmitter. The information is stored in the non-volatile Memory of the HX*iR*

The capsule mounting has been specially designed by Rycote™, to minimize the handling noise.

The transmitter is supplied with six coloured identifying rings to aid recognition in multi-channel use.

The ring also prevents the transmitter from rolling when placed on a table or other such surface, due to the specially designed flat areas on the ring.

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