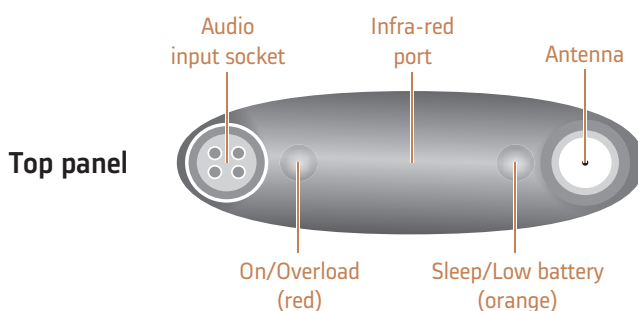




The miniTX transmitter is the smallest transmitter in the Audio Ltd range. Designed as a rounded form to be very easily concealed. All settings can be set and changed via the infra-red port using the SwitchiR™, and the miniTX can also be turned on and off through clothing using the Control-X.

There are two versions of the transmitter available: one with a 4-pin Lemo connector and the other with a 3-pin Lemo connector.

Controls, display and connections



Infra-red port

Receives commands from and transmits status information back to the SwitchiR infra-red controller, or AudiR for Palm.

On/Overload indicator (red)

Flashes on momentarily to indicate an overload in the presence of a high-level audio signal. At this point, the low distortion limiter operates.

Sleep/Low battery indicator (orange)

Flashes every two seconds when the transmitter is in sleep mode. Remains on when the battery is low.

Battery compartment

Holds two AAA type 1.5V alkaline batteries.

Audio input

Allows a microphone or input cable to be connected via a 4-pin Lemo connector, or 3-pin Lemo connector on an optional variant.

SMA antenna connector

SMA socket to which the antenna is connected.

LF cut using SwitchiR

Gives approximately 12dB LF cut at 50Hz, to assist in the reduction of wind noise.

Gain setting using the SwitchiR

Provides eight gain options when used with standard

microphones. Position 9 gives maximum gain and each position decreases the gain by approximately 3 to 4dB, giving a total of 30dB of adjustment.

Setting up the miniTX

To set up the miniTX:

- Fit the batteries.
- Connect the antenna.
- Switch on by plugging in the microphone or input cable (4-pin Lemo version only).
- Check or select the operating frequency.
- Check that the receiver's no signal indicator is not illuminated.
- Check or set the microphone gain.
- Check or set the LF cut filter.
- Check the battery status.

These steps are explained below:

Fitting the batteries

Open the battery compartment by turning the battery cover retaining nut in an anti-clockwise direction.

Rotate the battery cover in either direction.

Insert two AAA (LR03) type batteries as shown in the diagram on the miniTX sleeve.

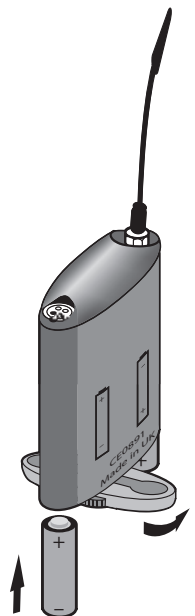
Close the battery cover and tighten the battery cover retaining nut in a clockwise direction. Take care not to over tighten.

The miniTX has reverse battery protection.

Low battery indication

When the battery is low the orange LED will remain on. The miniTX should not be used when the battery is low as poor operation may result. A low transmitter battery indicator is also provided on the DX2040 receiver and on the RK2040 rack.

Note: On the miniTX fitted with the 3-pin Lemo connector, the transmitter will switch on as soon as the batteries have been fitted to the transmitter. To maximize battery life the miniTX should be put into sleep mode by turning the miniTX off using the SwitchiR.



Connecting the antenna

Connect the flexible antenna to the SMA connector.

Switching on

Insert the microphone plug (only the 4-pin Lemo version turns on the miniTX).

The red LED illuminates momentarily under the top cover to indicate that the transmitter has been turned on.

Switching off

To turn the transmitter off remove the Lemo plug (4-pin Lemo version only), or put the miniTX in sleep mode by switching it off using the SwitchiR. Alternatively the miniTX can be turned off or on, even through clothing, using the Control-X.

In sleep mode the orange LED will flash every two seconds and the transmitter will draw very little current.

Connecting the audio input

Connect the microphone or input cable to the four-pin Lemo socket.

A positive microphone bias voltage is provided, enabling the majority of modern lavalier microphones to be used with the miniTX.

Selecting the operating frequency

You can check or change the operating frequency of the miniTX via the infra-red control using the SwitchiR.

To check the frequency:

- Press **MENU**. The display shows:



- Align the front of the SwitchiR with the infra-red port on the miniTX and press **OK**.

The display shows the current frequency; for example:



To change the frequency:

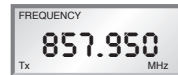
- Press **OK**. The display will alternately flash between showing the frequency and channel number. For example:



- Press \uparrow or \downarrow to scroll through the 32 frequencies read from the transmitter until the desired frequency or channel is displayed. For example:



- Point the SwitchiR at the infra-red port on the miniTX and press **OK**. If the command was received successfully the display will show the new set frequency. For example:



Otherwise it will show:



- Repeat the above steps if an error message is displayed, moving the SwitchiR closer to the infra-red port.

Setting the gain

The steps between gain settings 2-9 are approximately 3 to 4dB. Set the gain position so that the Overload indicator does not flash on during normal operation.

Note: On the miniTX gain settings 0, 1, and 2 are the same.

To check the gain setting:

- Press **MENU** followed by \uparrow . The display will indicate:



- Align the front of the SwitchiR with the infra-red port of the miniTX and press **OK**. The display will show the current transmitter gain setting:



To change the gain setting:

- Press **OK** again. The display will flash the level setting.
- Press \uparrow or \downarrow to step between gain settings 2-9 until the required gain setting is displayed. For example:



- Align the front of the SwitchiR with the infra-red port on the transmitter and press **OK**. If the command was received correctly the display will show the new gain setting. For example:



Otherwise the display shows:



- Repeat the previous steps if an error message is displayed, moving the SwitchiR closer to the infra-red port.

Setting the LF cut filter

The LF cut filter gives an approximately 12dB cut at 50Hz to reduce handling and wind noise.

To check the status of the LF cut filter:

- Press **MENU**.
- Press a twice until the display shows:



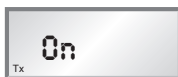
- Align the front of the SwitchiR with the infra-red port on the transmitter and press **OK**. The current LF cut filter setting is displayed; for example



To change the filter setting:

- Press **OK** again. The current setting will flash.
- Press \uparrow or \downarrow to toggle between ON or OFF until the required setting is displayed.
- Align the front of the SwitchiR with the infra-red port on the transmitter and press **OK**.

If the command was received successfully the new setting will be displayed. For example:



Otherwise the display will show:



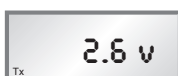
- Repeat the previous steps if an error message is displayed, moving the SwitchiR closer to the infra-red port.

Checking the battery status

- Press **MENU**.
- Press \uparrow three times until the display shows:



- Align the front of the SwitchiR with the infra-red port on the transmitter and press **OK**. The display will show the current battery status:



The battery level can also be checked from the receiver; see the appropriate instructions for the receiver.

Infra-red disable

You can protect the miniTX from an accidental change of settings, such as in a live performance, by disabling the infra-red port on the transmitter. This will prevent all communication with the transmitter until the the battery is disconnected and reconnected via the microphone plug.

Disabling the infra-red port

- Press **MENU**.
- Press \uparrow twice. The display will show:



- Align the front of the SwitchiR with the infra-red port on the transmitter and press **OK**. If the command was received successfully the display will show:



Note: Once the infra-red port has been disabled, any subsequent interrogation of the transmitter will give an error display; this is not a fault.

Sleep mode

The miniTX can be put into sleep mode using the SwitchiR. In sleep mode the orange LED will flash every two seconds. The miniTX uses very little current and the SwitchiR can still be used to read all settings other than frequency.

When not in use the power should be switched off by removing the microphone plug or input cable.

Putting the miniTX into sleep mode

- Press **MENU** followed by \downarrow . The display will indicate:



- Align the front of the SwitchiR with the infra-red port on the transmitter and press **OK**. The display will show:



To switch the transmitter on again:

- Press **MENU**. The display shows:



- Align the front of the Switch*i*R with the infra-red port on the transmitter and press **OK**. The display shows:



The red overload LED will flash on momentarily to indicate that the miniTX has woken from sleep mode.

- Press **MENU**. The display shows:



- Align the front of the Switch*i*R with the infra-red port on the transmitter and press **OK**. The display shows the current frequency, for example:



Alternatively, you can use the Control-X to turn the miniTX on again.

Technical specification

Frequency range	470MHz–1000MHz
Number of frequencies	32 pre-programmed
Frequency stability	Better than ETS 300–422
Switching range	Up to 24MHz
Output power	25mW nominal
RF output connector	SMA 50Ω
Audio input connector	4 pin Lemo™ Other variant available: 3 pin Lemo™
System frequency response	50Hz to 18kHz ±1dB
System THD measured at 1kHz	<0.1% at working levels <0.3% at gain position 9 with -6dB input in overload
Gain control range	30dB in 8 steps
Maximum input level	0dBu gain position 2
Indicators	Red LED to indicate overload Flashing orange LED to indicate sleep mode Static orange LED for low battery
Batteries	2 x AAA (LR03) 1.5V type alkaline
Battery life	Typically 5 hours with alkaline type batteries
Other	miniTX can be switched ON/OFF through clothing via Control-X (available separately)
Size	16.5 x 82 x 48mm (DxHxW)
Weight	90g inc batteries
Operating temperature	-20°C to +55°C
Compliant to	R&TTE, FCC, EN 300-422 EN 300-445

CE 0891 ⓘ

EC Declaration of Conformity

Déclaration de conformité pour la CEE. EG-Konformitäts-Erklärung
Certificato di conformità comunitario. Declaración de Conformidad. EG-Conformiteitsverklaring

AUDIO LIMITED. Audio House, Progress Road High, Wycombe, HP12 4JD, U.K.

declare that these devices / déclarons que ces appareils / erklären, dass die Produkte / declaramos que estos aparatos / dichiara che questi apparecchi / verklaren, dat deze toestelen

miniTX Pocket Transmitter

conform to the essential requirements of the R&TTE Directive 1999/5/EC. To demonstrate compliance with these requirements, the following standards were consulted:

sont conformes aux prescriptions fondamentales dan la Directive R&TTE 1999/5/EC. Pour mettre en pratique dans la règle de l'art les prescriptions, il a été tenu compte des normes suivantes:

den einschlägigen Anforderungen der R&TTE-Direktive 1999/5/EC entsprechen. Zur sachgemäßen Umsetzung der in den EG-Richtlinien genannten Anforderungen wurden folgende Normen herangezogen:

complen los requimientos básicos de la normativa de la normativa R&TTE 1999/5/EC. Con il fin de realizar de forma adecuada los requirimientos referidos en la normativa fueron consultadas las siguientes normativas:

sono conformi alla normativa R&TTE 1999/5/EC. Per un'appropriateo risconto nell'ambito della normativa CEE sono state consultate le seguenti normative:

overeenkomt met de basiseisen van de EG-Richtlijn 1999/5/EC. Om de eisen, die in de EG-Richtlijnen vermeld zijn, in juiste vorm om te zetten, zijn van volgende normen gebruik gemaakt:

Article 3.1a: EN 60065:2002 (Safety of Electrical Equipment)

Article 3.1b: EN 301 489-9:2002 (Electromagnetic Compatibility)

Article 3.2: EN 300 422-2:2000 (Radio Parameters)

Conformity assessed via Annex IV using a Technical Construction. File examined by Notified Body 0891, TRL Compliance Services Ltd.



Lee Stone, Technical Director. 2007