1. Emergency remote connection when there is no available Ethernet access using a mobile phone.

There are situations where it is impossible to get access to an Ethernet connection in order to establish an IP connection. Even in these scenarios, it is still possible to use TALENT to make decent quality reports taking advantage of its Bluetooth audio connectivity, while establishing the remote connection through the phone network or any Internet conferencing App using your smart terminal.

This way, TALENT won't behave as an audio-codec, but as a high quality "hands-free" terminal taking the audio captured by your favorite dynamic or condenser microphone (even requiring Phantom power) and sending it to a remote studio using GSM or any Internet communications application such as Whatsapp, Skype, Meet, etc.

The studio return will also be played through the headphones connected to your TALENT, making use of its powerful, high-quality amplifier.

Audio quality is determined by the used App and Bluetooth HFP (Hands Free Profile), and will be usually equivalent to G.722 (the now so-called "Voice-HD", with 8kHz audio bandwidth)
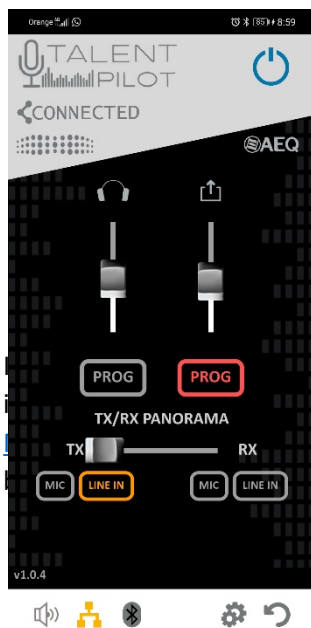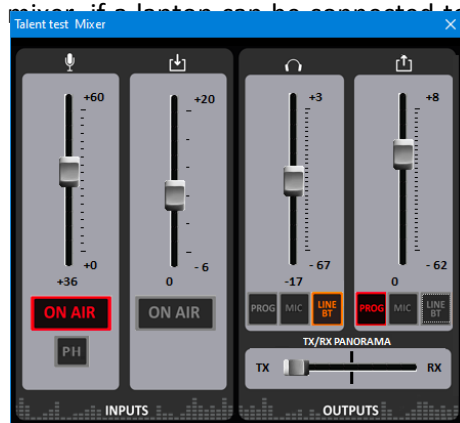
when using most data-based applications, but it can be reduced to G.711 or similar (4 kHz) when the call is made using the plain GSM network.

In order to do this, the first step consists on linking TALENT to the mobile device for audio. While the codec's blue Bluetooth LED blinks, it can be searched for in the phone's list of available Bluetooth devices. A device named "AEQ_TALENT_XXXXX" should appear, where XXXXX corresponds to its serial number (which can be found at the back label of the unit). NOTICE: don't try to link to the additional control device "AEQ_TALENT_BLE_XXXXX" which TALENT publishes.

Once the device has been selected and the link is established for calls and multi-media audio, the blue LED will remain steadily illuminated.

From then on, any call initiated or received in the phone will be routed to Bluetooth by default. In order to listen the return in the headphones, you need to select the orange "LINE IN / BT" button in the headphones output, and to be able to send our microphone to the phone, the PROG button must be selected for the LINE OUT output, while adjusting the TX/RX PANORAMA slider to the TX (left) side. This way, we can use the ON AIR key to mute or send the microphone and we can also have a visual indication of its level in the device's Vu-Meter.

These adjustments can be made using Control Phoenix mixer, if a laptop can be connected to TALENT using an Ethernet cable.

a laptop or that software at hand, we can also use TALENT Pilot App to make these audio adjustments (see section 5 of TALENT User's outputs configuration is accessed by touching the right circular

Once these settings are configured, microphone and headphone levels can be adjusted from the device's left and right encoders, as usual, or also from the App. Microphone level is adjusted by the left fader of the Inputs screen of the App (or turning the left rotary encoder in the unit), while the headphone listening volume is adjusted by using the left fader at the Outputs screen (or using the right encoder). It is recommended to set the LINE OUT/BT send level (fourth fader in ControlPhoenix) between 0 and -10dB for a correct, unsaturated microphone sending level, and the LINE IN /BT fader to a 0 dB value (Note that this is setting is not the same as the second input fader in the App, corresponding to the Phone's output level).

2. Combining several AEQ TALENT units to send more than one microphone

AEQ TALENT provides a single professional microphone input. In cases where it is necessary that several journalists collaborate in order to produce a combined program from a remote location, we recommend you to use Phoenix ALIO, a portable audio-codec with up to 4 microphone inputs.

However, if you don't have access to this codec, but each journalist brings his own TALENT, it is still possible to produce the chronicle towards the studio in a simple way!

In order to do this, we will take advantage of the LINE IN input and LINE OUT output located at the back of the unit to "daisy-chain" the devices. Only one of them will actually establish the IP connection towards the studio (and, hence, only that one needs to have an Ethernet cable connected).

We have two options:

2.1. Connecting 2 TALENT (with common program feedback on both headphones)

First of all, let's choose which TALENT will be the "master". This is the one that will establish the IP connection to the studio, and hence that will make the SIP or RTP call, according to our preferences.

Additionally, we only need a pair of stereo 3.5mm minijack – minijack cables:
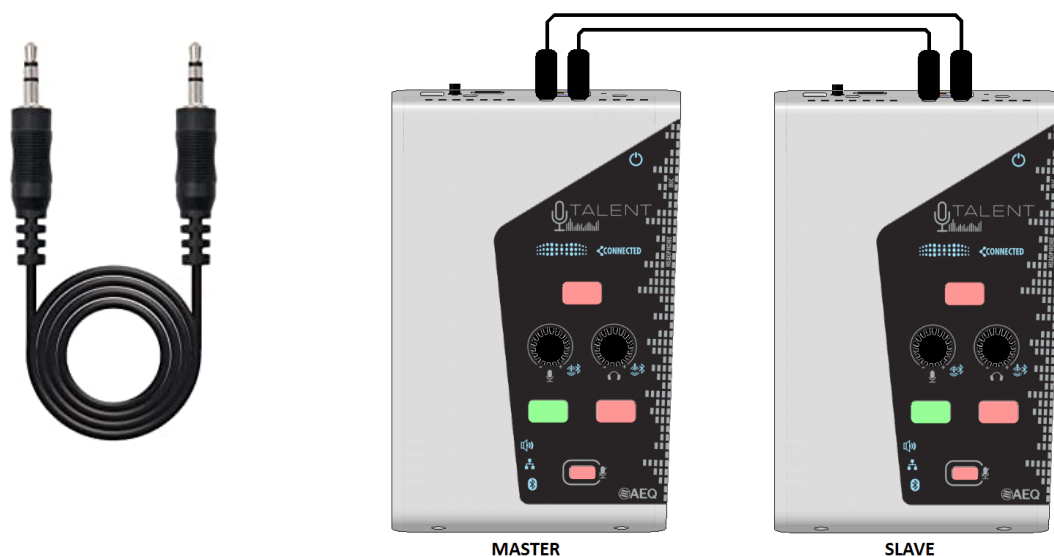
MASTER   SLAVE

One of them will be connected from the LINE OUT connector of the TALENT which is not establishing the communication (we will call it the "slave" codec), to the master codec's LINE IN input.

If we need the second journalist to also receive return from the studio, we will need an identical cable that is used to connect LINE OUT of the "master" codec to LINE IN of the "slave" one (see picture above).

Next, we need to correctly set up the audio parameters in both units. We will illustrate these adjustments on ControlPhoenix mixers, but of course they can also be made using TALENT Pilot (see section 5 of TALENT User's Manual), either using one phone connected via Bluetooth to each codec, or sequentially, configuring the Master TALENT first, and then the other one (you will need to close the App, reopen it and connect to the corresponding device each time).

We need the master TALENT to mix not only its own microphone but also its LINE input towards PROGRAM send. In the opposite direction, we will take the PROGRAM return signal to the LINE OUT towards the slave codec (the local/remote mix level adjustment is the same for both commentators, using the Master codec's TX/RX PANORAMA slider).

As far as the Slave TALENT is concerned, it should route its microphone to LINE OUT to be sent to the Master. In order to do that, please note that we will route PROG instead of the direct MIC input to LINE OUT; this way we preserve the ON/OFF function of the microphone's ON AIR button. Take care to set the TX/RX PANORAMA slider to TX-only (left side). For the return, we will simply route LINE IN towards the headphones.
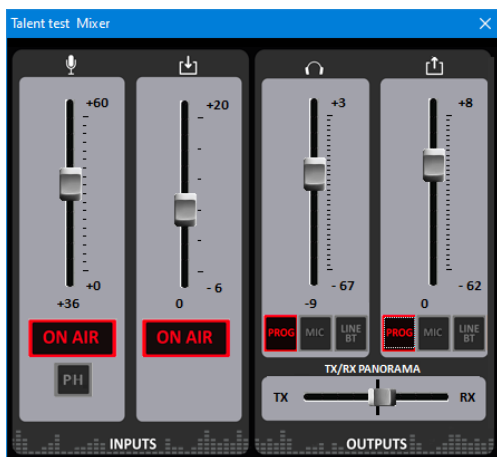
<div align="center">MASTER TALENT   SLAVE TALENT</div>

Local encoders will preserve their usual functions, allowing the users to individually adjust the microphone send level and the headphone return volume.

As in any communication, it is always important to agree with the remote peer on whether they will provide return of our own microphone (that will come back with some delay and hence is not recommended), or we can ask them not to send it (make a N-1), so we will generate that feedback locally, by simply allowing for some TX program proportion in the TX/RX PANORAMA adjustment of the Master codec, as depicted in the figure above. That return will be propagated to the slave codec using the second LINE OUT → LINE IN cable, as previously explained.

NOTE: This daisy-chain configuration also allows for the mixing of audio signals (music, Whatsapp notes, etc.) via Bluetooth from one or both phones paired to any of the TALENT, without further configuration. The level of those signals needs to be adjusted from each phone's own output level control.

2.2. Connecting 3 or more TALENT (with program return to the Master codec only)

If we need to send more than 2 microphones, we can still do that by connecting 3 or more TALENT devices in cascade (it is not recommended to chain more than 4 units in order to keep a good noise level). The only drawback is that we won't be able to receive return to the "slave" codecs (only to one of them*), so the rest of commentators will only be able to listen to themselves (local feedback).

The connection is made by connecting the LINE OUT outputs to the LINE IN inputs (leaving the master codec's LINE OUT and the first slave TALENT's LINE IN free):
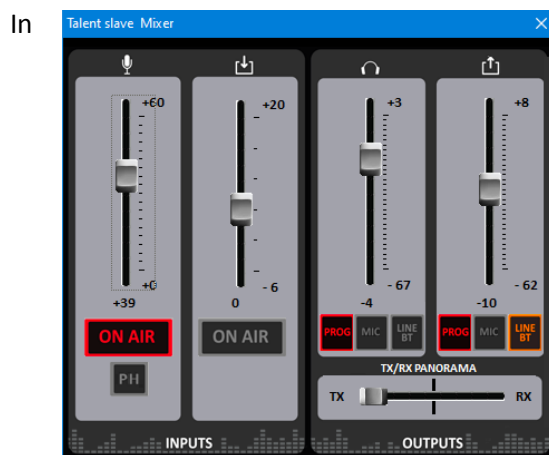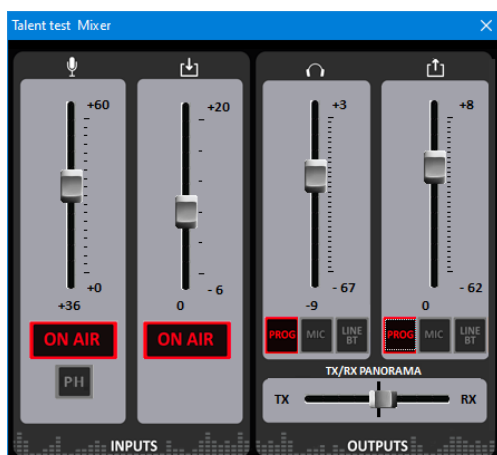

| MASTER | SLAVE N | SLAVE1 |
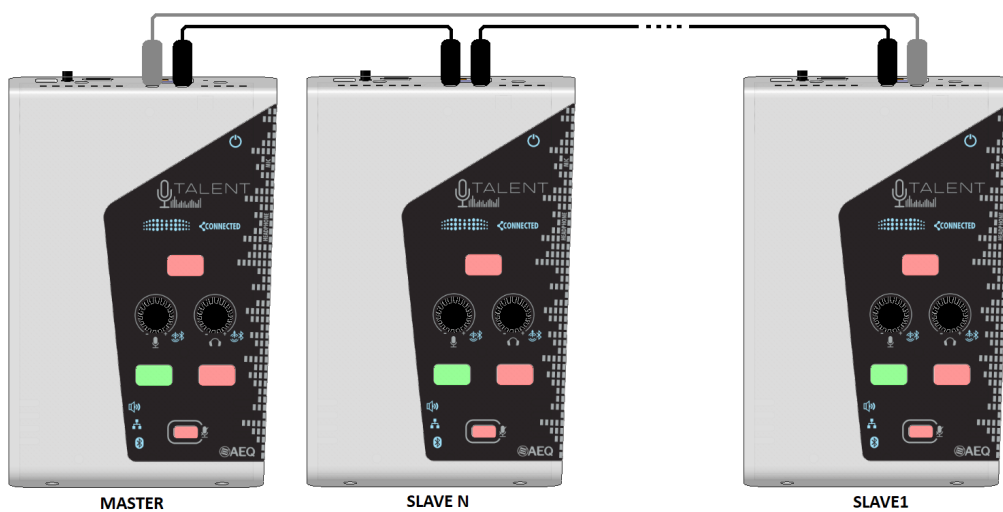
*(In this figure, the grey cable is optional and can be used at least to provide program return to the first slave codec, "slave 1", apart from the master)

The most adequate configuration for the Master and Slaves is as follows:

MASTER TALENT   **_SLAVE (1..N) TALENTs_**

In this case, the Master is configured in the same way as case 1, but the Slaves listen to their own microphones locally (PROG routed to headphones). LINE OUT now mixes PROG with the LINE

IN input, to add microphones from previous Slave N-1. Again, it is important to set PANORAMA to TX -left- position.

* If that additional grey wire is added, return can be provided to the first slave only, which LINE IN connector was free, by making a different inputs configuration in it (route LINE IN instead of PROG to headphones and connect that cable to it's LINE IN from master's LINE OUT).

NOTE: This daisy-chain configuration also allows for the mixing of audio signals (music, Whatsapp notes, etc.) via Bluetooth from one or more phones paired to any of the TALENT, without further configuration. The level of those signals needs to be adjusted from each phone's own output level control.

3. Adding a commentator or ambient noise microphone using your telephone

There are several situations where an additional microphone connected to AEQ TALENT may be required:

- Counting on a backup microphone in case of failure or miss of the main microphone.
- 2 journalists want to comment the same event from one TALENT (note that, if more TALENT units are available, you can follow the use case "Combining several TALENT units to send more than one microphone")
- 1 journalist remains in the stages with his TALENT while another one interviews someone standing at several meters*, for example, next to the playground or track.
- 1 commentator wants to mix its own microphone with the ambience noise when producing the program.

(*Maximum distance is limited by the range of the Bluetooth connection, and depends heavily on the terminal used)

(insertar fotos que ilustren estos casos)

In order to cover these needs, there is an interesting solution taking advantage of the high-quality Bluetooth-audio capabilities of TALENT and a generic App running in the phone.

The idea is to be able to use the phone's integrated microphone/s and send it/them to TALENT via Bluetooth. There are many available Apps which can do this: note that using a Bluetooth speaker or "boombox" to play our microphone loud or implement a "karaoke" is a popular application.

One of the tested Android Apps is called "Microphone & Speaker", by EONSOFT and is free (although it includes some Ads).
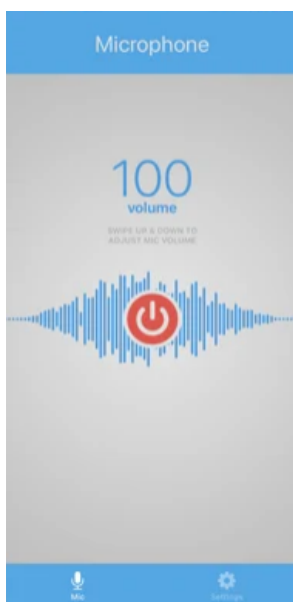

Micrófono y altavoz

EONSOFT   Herramientas

PEGI 3

Contiene anuncios

Esta aplicación está disponible para todos tus dispositivos

Puedes compartir este contenido con tu familia. Más información sobre la biblioteca familiar

Microphone

100
volume

SWIPE UP & DOWN TO ADJUST MIC VOLUME

Mic   Settings

There are also some Apple iOS Apps available, such as "Microphone Live", by Von Bruno, which can be installed for free and performs a similar function.
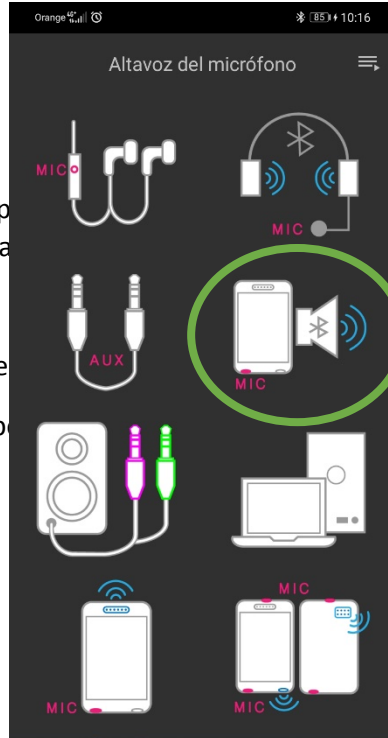

Microphone Live 4+
Von Bruno
Diseñado para iPad
★★★★★ 4,3 · 44 valoraciones
Gratis

This app... ...phone is used... ...rding to the capa... ...vice used.

The sele... ...llowing way:

First, op... ...Bluetooth m... ...picture):

The screen depicted at the right will appear. There, we only need to touch the lower red microphone button to send it to Bluetooth (that button will change to a blue disabled microphone symbol), and adjust proper level using the phone buttons or the slider appearing in that screen.

We can always go back to the main menu and leave the App running in background. We can even play music or other audio files from the phone, that will be mixed with the microphone and sent to TALENT. The telephone's microphone signal is sent using A2DP profile, meaning that it has full bandwidth and hence it can provide really good quality.

Once the phone is paired for audio with TALENT, activate from ControlPhoenix or TALENT Pilot (see section 5 of TALENT User's Manual) the ON AIR button for the LINE IN/BT input (or by simply pressing the left rotary encoder pushbutton for more than 2 seconds) to broadcast what the terminal's microphone captures, mixed with the microphone physically connected to TALENT.

This application allows us to use the phone's STEREO microphone. In this case, you can leave the phone in front of you in horizontal position and it will capture ambient noise with a very nice depth sensation, using the lower and upper microphones integrated in most terminals. This will provide a kind of "International Sound" capture that we can mix with the journalist's microphone.

We can also use it in mono mode (single microphone at the lower part of the phone) to interview someone or to provide a second commentary signal.

4. Using a 3G / 4G / 5G mobile router to transmit from anywhere

It is possible to provide mobile connectivity to Talent in order to send your chronicles from anywhere using a simple and cost-effective mobile 3G / 4G / 5G router. Many of them are readily available in the market.

4.1. Choosing your router

The selected router must meet the following requirements:

- It must have an internal SIM socket compatible with 3G / 4G / 5G network in the geographical area where it is going to be used. At least 4G (LTE) connectivity is recommended.
- It must provide a physical RJ45 Ethernet port
- It is interesting that it is self-powered with internal rechargeable battery, or at least it has a 5V USB port to be powered from a USB charger, laptop or Power Bank. The ones that don't meet these requirements are usually powered by an external adapter (typically at 12V DC).

These are some popular mobile routers that work well with TALENT:

KUWFI CPF-905 (it can be powered from 12V DC or by means of the included micro-USB connector):
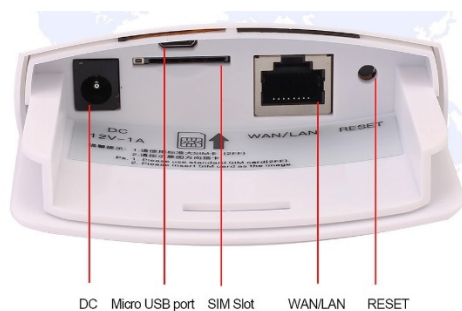
HUAWEI B311-221 (requires external 12V DC power supply):

NETGEAR MR1100 (this one has a higher cost, but includes internal battery, although not powerful enough to power the TALENT as well):

4.2.   Configuration

Insert a SIM card with associated data plan and de-activated SIM PIN. Follow the router instructions to connect it to the mobile network. Some of these routers obtain the APN (Access Point Name) automatically, while others need you to provide it. All of them provide WiFi access points that you can use for easy management and configuration through your mobile phone. Once Internet connectivity is obtained, you can also check it by disabling your phone's mobile data and trying to access your favorite web page.

TALENT operation with these routers is always the same: just connect the Ethernet cable and configure the router to provide DHCP service (this is the usual default mode anyway), so when the codec is powered up, it will get automatic IP configuration after a while. Make sure that TALNET is configured in this mode using TALENT Pilot App (see section 5 of TALENT User's Manual).

Once the router is connected to the Internet, just power your TALENT up and wait until it gets IP configuration. The yellow LAN sign in the unit will become steadily illuminated once the unit is ready to make a call (this means that valid IP configuration is obtained when in RTP mode

and, additionally, that proper registration in the specified server has been achieved when in SIP mode).

The portable equipment set can be completed by choosing a good Power Bank feeding both the router and TALENT, if it provides two USB outputs. That's why it is wise to choose a router which can be powered with 5V (micro USB, USB-C, etc.). However, you can also find some Power Banks providing 12V output available in the market.