

TX-Box

User Guide



IC: Complies to ICES-003 class A

DE-DS TX-Box



Version 10/04/2019

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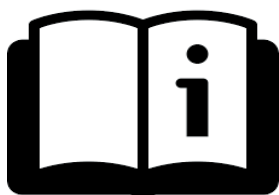
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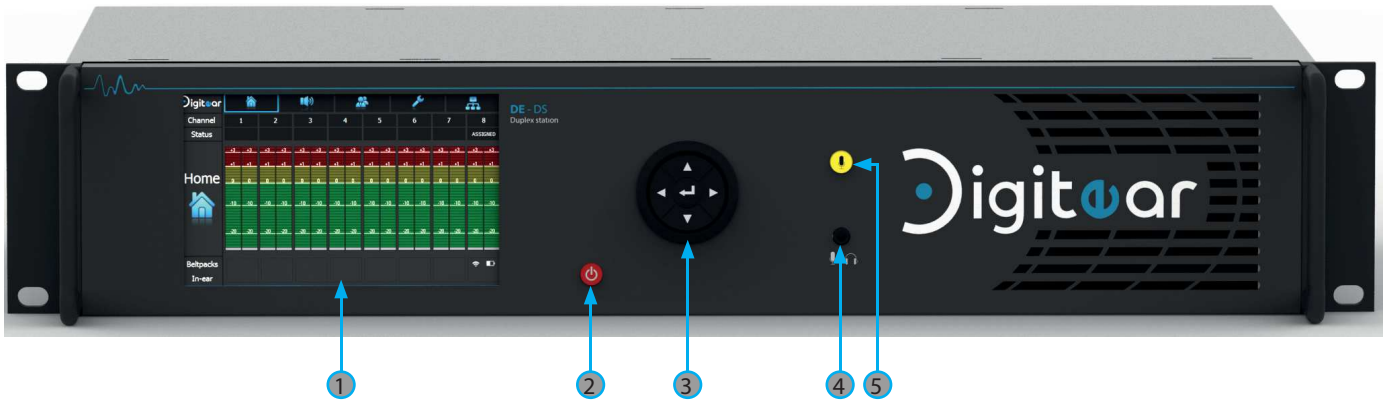
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User Guide available on www.digitear.eu

1 - DESCRIPTION OF THE TX-Box



- ① LCD screen
Displays the different menus
- ② Power On
Turns on the Tx-Box
- ③ Directional Pad/Enter
Allows navigation between the different menus and validation of an action with the enter key
- ④ 3.5mm - 4 point Jack
To connect a headset with or without a microphone
- ⑤ TALK
While pressed it allows you to activate the «monitor channel»
This allows the user to test the XLR inputs-outputs (See page 12)

- ⑥ Access Point
- ⑦ DE-GU LINK
Allows the connection of a GPI/GPO module
- ⑧ 2.0 USB PORT
Reserved to debug
- ⑨ Analog outputs XLR3
- ⑩ Analog Inputs XLR3
- ⑪ POWER IN
+12V power connector



2 - LIST OF PROVIDED ACCESSORIES

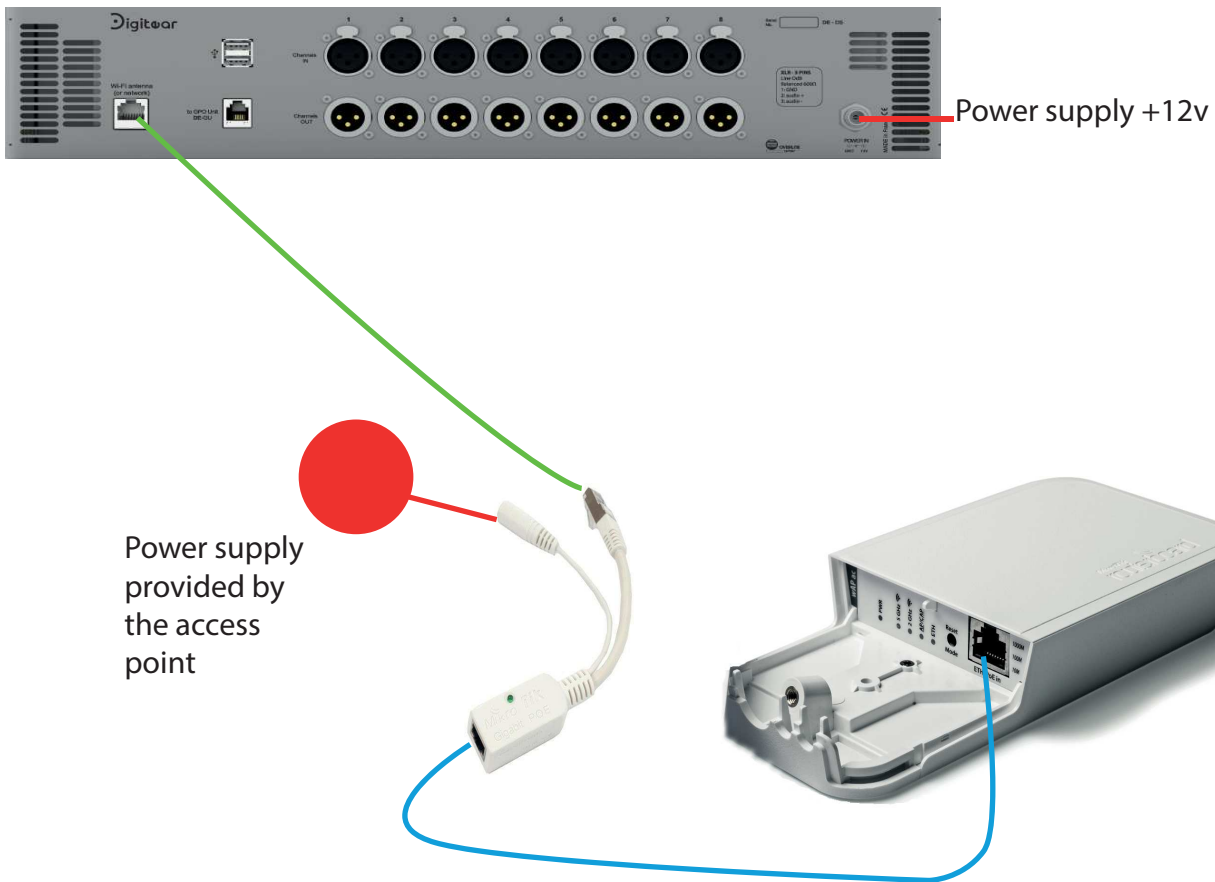


Power supply card and its cable - 12V - 4,2A
REF : AEJ50US12

3 - CONNECTING AND POWERING ON

Power connection and Access Point:

Connect the access point on the RJ45 port, permitting it to both supply power (Port POE : Power Over Ethernet) and to connect the TX-Box to the Digitear network.



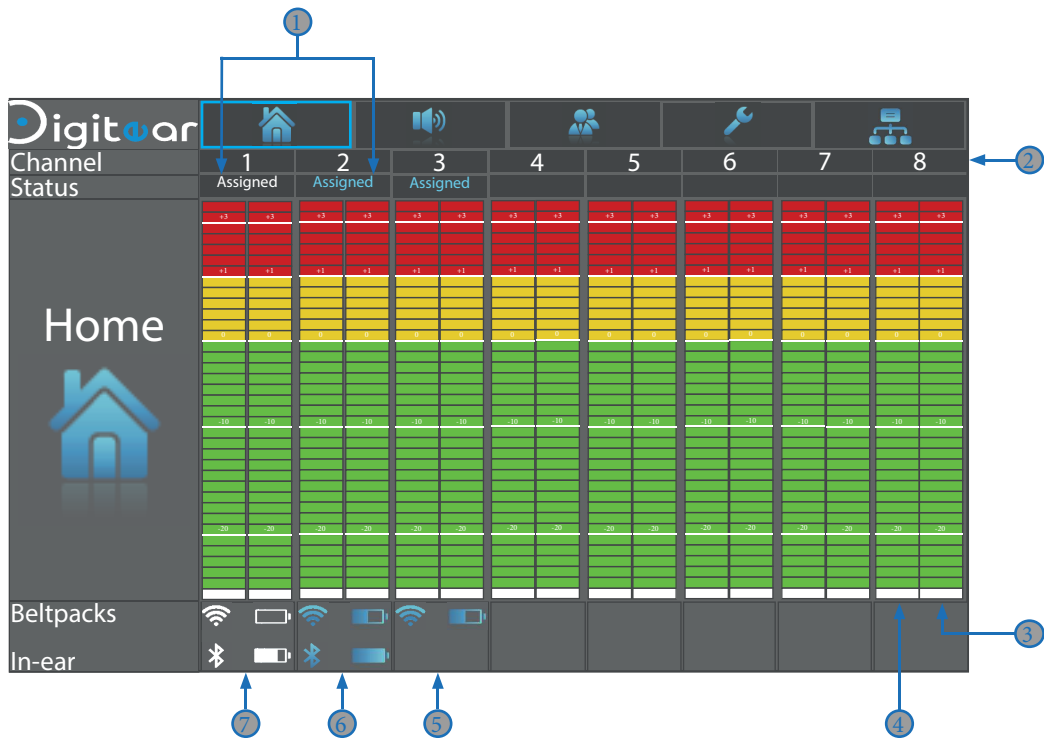
Power supply provided by the access point

— RJ45 ethernet cable

— Connect the RJ45 cable directly to TX-Box

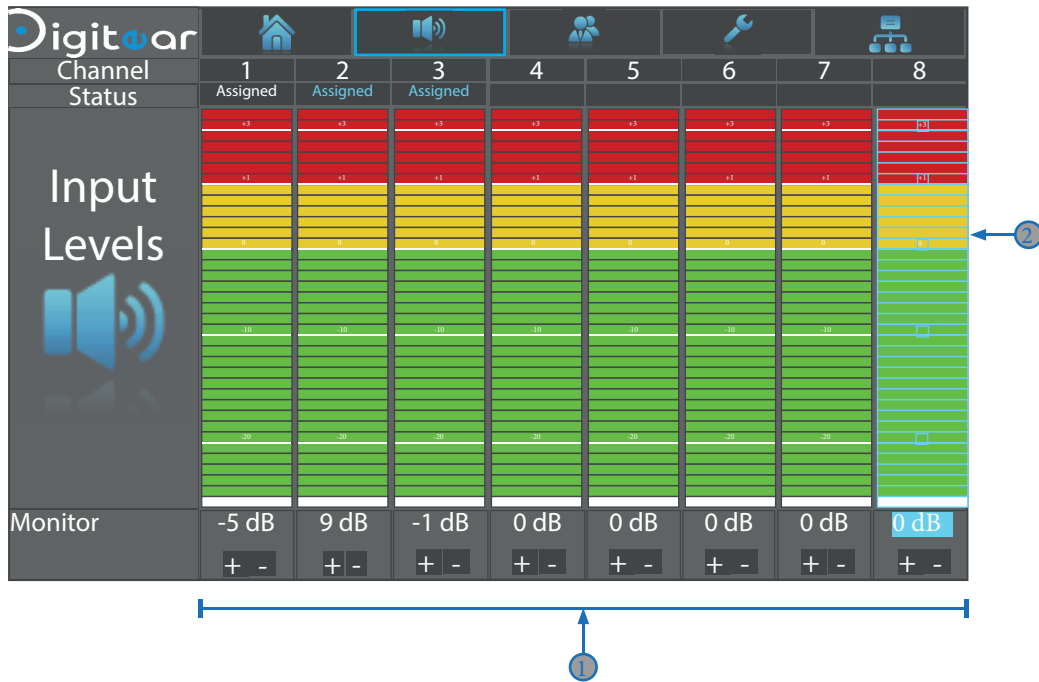
4 - ADVANCED DESCRIPTION OF THE MENUS :

4-1 «Home» menu :



- ① Beltpack assigned to a channel.
When «assigned» is blue, the Beltpack is turned on
When «assigned» is white, the Beltpack is turned off
- ② Channel number
- ③ Sound level of the XLR input
- ④ Sound level of the XLR output
- ⑤ Information about the Beltpack paired to the channel
If blue, the Beltpack and earpiece are on.
- ⑥ Information about the Beltpack paired to the channel
and the In-Ear paired to the Beltpack.
- ⑦ Information about the Beltpack paired to the channel
and the In-Ear paired to the Beltpack.
If white, the Beltpack and the In-Ear are off.

4-2 «Input Levels» menu :



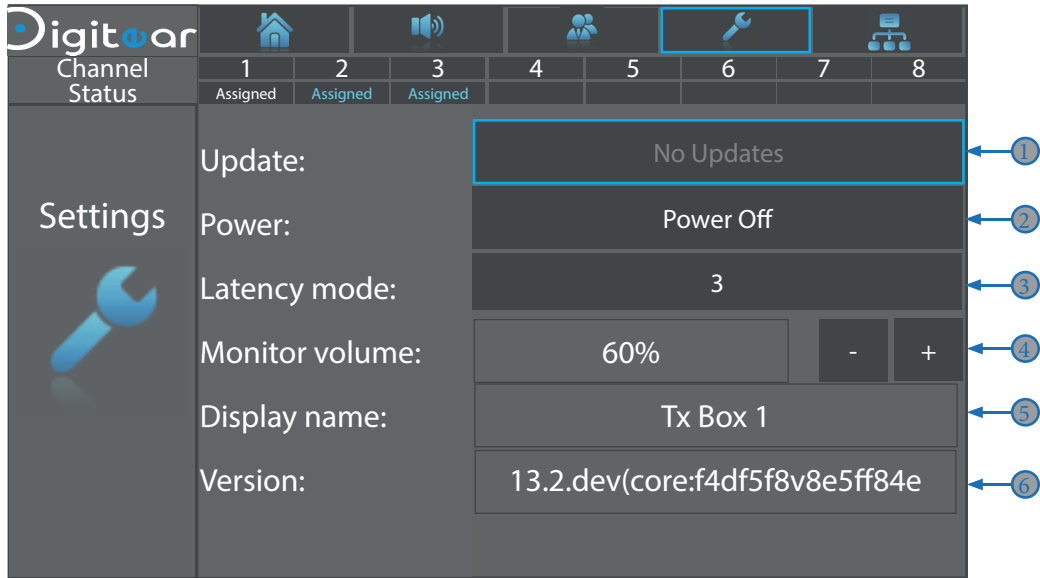
- ① Menu to adjust the selected input gain
 - Move the cursor with the help of the + and - keys on the navigation button
 - Maximum: +15 dB
 - Minimum: -15 dB
- ② Bargraph showing the input levels

4-3 «Channels» menu :



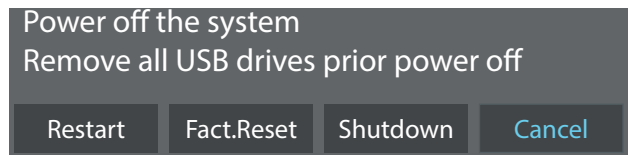
- ① Choice of the desired channel to increase or decrease the mic gain
- ② State of the channel:
Enable: the channel is active
Disable: the channel is inactive
- ③ Channel mode:
Single: standard mode, the channel is assigned to one Beltpack, the «talk-back» function is authorized
Broadcast: the channel is assigned to multiple Beltpacks in listen-only mode (maximum 10 Beltpacks)
- ④ Increasing or decreasing the «talk-back» gain
Maximum : +30 dB
Minimum : -20 dB
- ⑤ Battery level of the Beltpack
- ⑥ Battery level of the In-Ear
- ⑦ Connection status of the In-Ear
- ⑧ Reception quality of the Beltpack

4-4 «Settings» menu :



① Indicates if a Tx-Box update is available

- ② Allows to :
- Turn off the TX-Box
 - Restart the TX-Box
 - Restore factory settings



WARNING : this will erase all of your settings, the TX-Box would have to be reconfigured. (assigned Beltpack, gains, network configuration...)

③ Increasing the latency time enables having a more robust sound signal but increases the signal delay and, vice versa, the smaller the latency, the less the signal would be robust.

Latency level :

- 1 to 2: it is impossible to use the Beltpack's «talk back»
- 3 to 5: it is possible to use the Beltpack's «talk back»

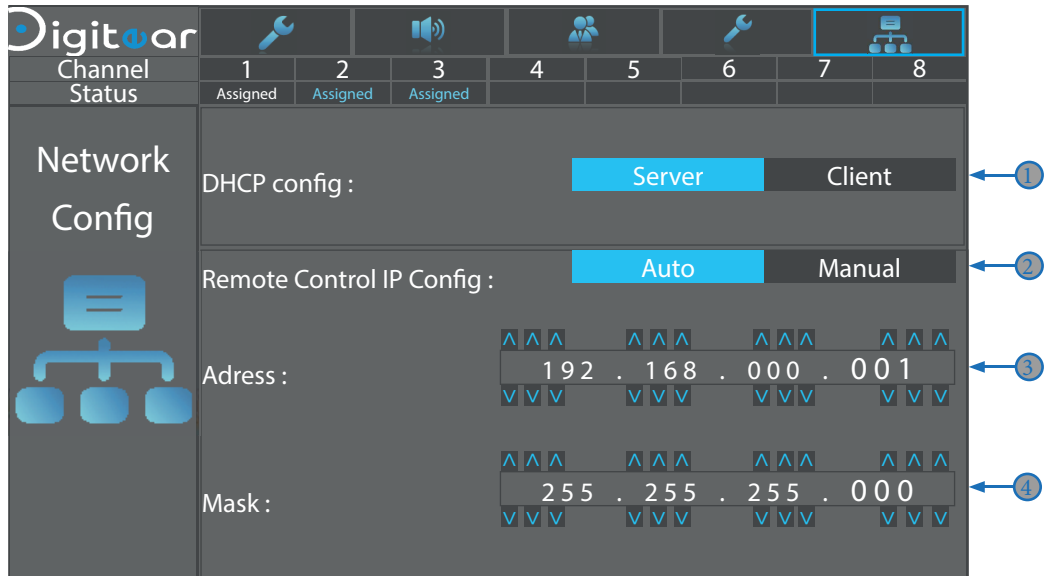
Use  to modify the value

④ Permits adjustment of connected equipment's gain on the front jack. Input gain or output gain

⑤ Name given to the TX-Box

⑥ Software version of the TX-Box

4-5 «Network Config» menu :



- ① Allows configuration of the DHCP in :
 - Server: The TX-Box server will distribute the IP addresses to all the elements on the network who need one to function (Access Point, TX-Box, Beltpack...)
 - Client: The TX-Box waits for the DHCP server to give it a IP address
 Used in case several TX-Boxes are present on the Digitear Network

- ② Choice of the configuration of the IP address to the Remote Control
 - Auto: a DHCP server will give an IP address to the external network card
 - Manual: the user will manually configure the static IP address and the subnet mask

- ③ Set IP address, configured by the user for the Remote Control network
- ④ Subnet mask, configured by the user for the Remote Control network

5 - NETWORK CONSIDERATION

5-1 Antenna (access point) interface:

- IP range of the interface antenna :

192.168.88.0

to

192.168.88.255

- The TX-Box does not handle the Vlan.

5-2 Remote Control interface:

- Other than the IP address range used by the antenna, all IP addresses can be used.

- Vlan not supported.

- Used ports : 2020 - 2010 - 2001 - 33333 - 2500

6 - FUNCTIONNING

6 - 1 Connected Beltpack :

The connection will be done with the Beltpack (See Beltpack User Guide).
Once connected, the Tx-Box will display the following information:

- battery level
- network reception level
- the information «Assigned» will be visible on the channel where it will be connected.



Beltpack not connected to the TX-Box.


The information will stay saved but will be displayed in white.

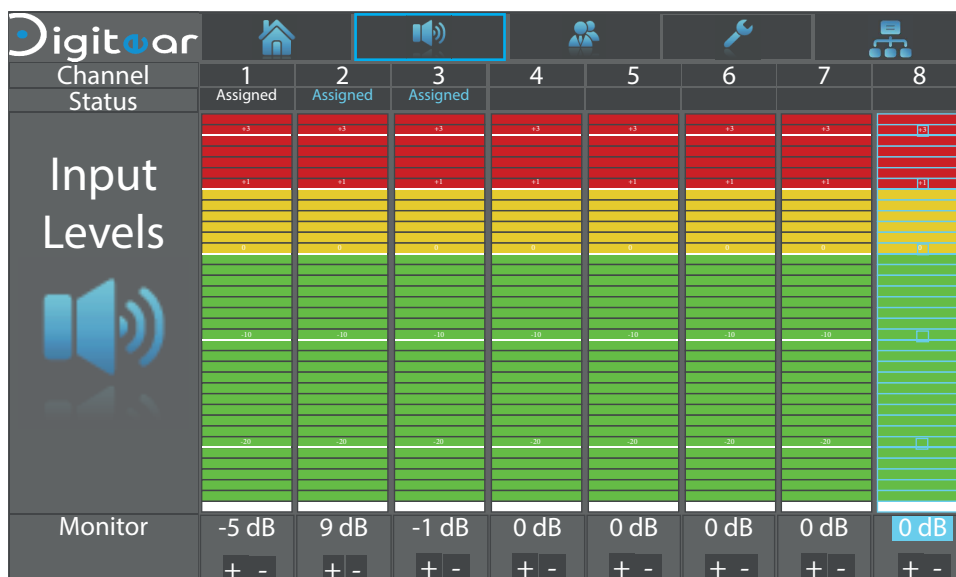


Beltpack connected to the TX-Box.

The information «Assigned», «battery» and «reception level» are displayed in blue.

6 - 2 Adjusting the input gain :

The input gain is adjusted directly from the TX-Box. In order to do this you must pick the channel where you wish to adjust the input gain by pressing on , the menu «Input Levels» will open.
Adjust the gain by selecting the - and + keys.




6 - 3 Testing your installation :

Once your installation completed, you dispose of a simple way to test it.

An 3.5 jack input on the front of the TX-Box permits, once a headset is connected, to listen to the sound that comes in through the XLR input of the channel or to transmit sound on the XLR output of the channel.

This function is called «Monitor Channel».



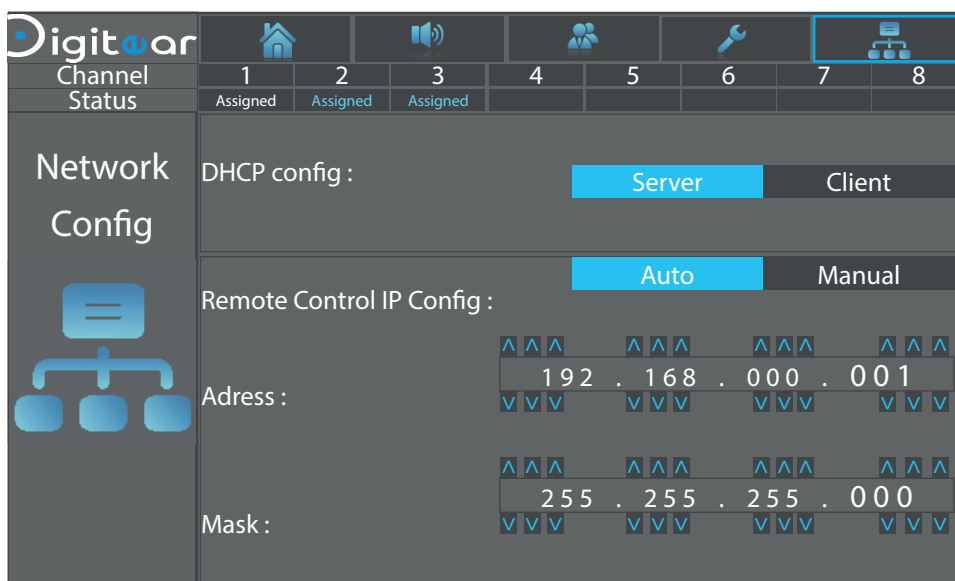
In order to select the channel, go on the «Input Levels» menu, chose the channel and press on  . The channel's elements will be framed in blue.

6 - 4 Using the USB ports :

The TX-Box is equipped of 2 USB 2.0 ports destined for maintenance.
For example, they allow you to insert of USB drive (for updates).

6 - 5 Configuring remote access :

To enable remote access you need to connect an external network card on one of the available USB ports in order to disassociate the Digtlear network and the «remote control» network. Then, you need to configure the network information in the «Network Config» menu.

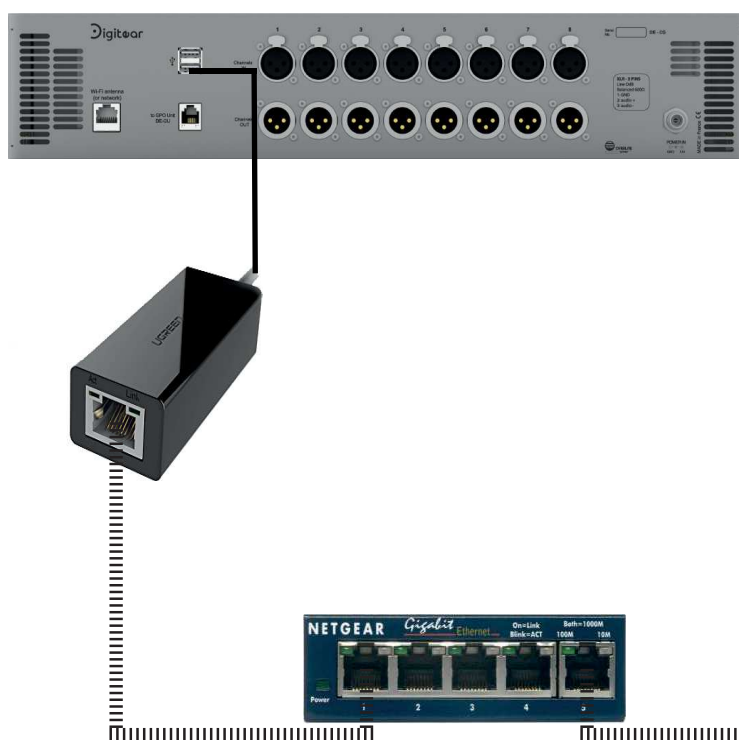



Select the desired network configuration for remote access.



Auto: a DHCP server will give the external network card an IP address.

Manual: the user will configure the static IP address and the subnet mask manually.



 The external network interface must be plugged in when the system is shut down. It restarts once the interface is plugged in.



6 - 6 Updating the TX-Box :

Update information will be transmitted in an email from Overline Systems’ development team or will be downloadable on the official website.

This email will have the files necessary for the update attached.

You can also find all of these updates on the website www.digitear.eu

To install this update on the Tx-Box and the Beltpack you need to follow this procedure:

Step 1 :

Use a USB drive previously formatted to the FAT 32 format. it must be named «DIGIUPDATE» in capital letters. If one of these two conditions is not met the CAPS will not function.

Step 2 :

Decompress the content of the archive attached to the email in the USB drive.

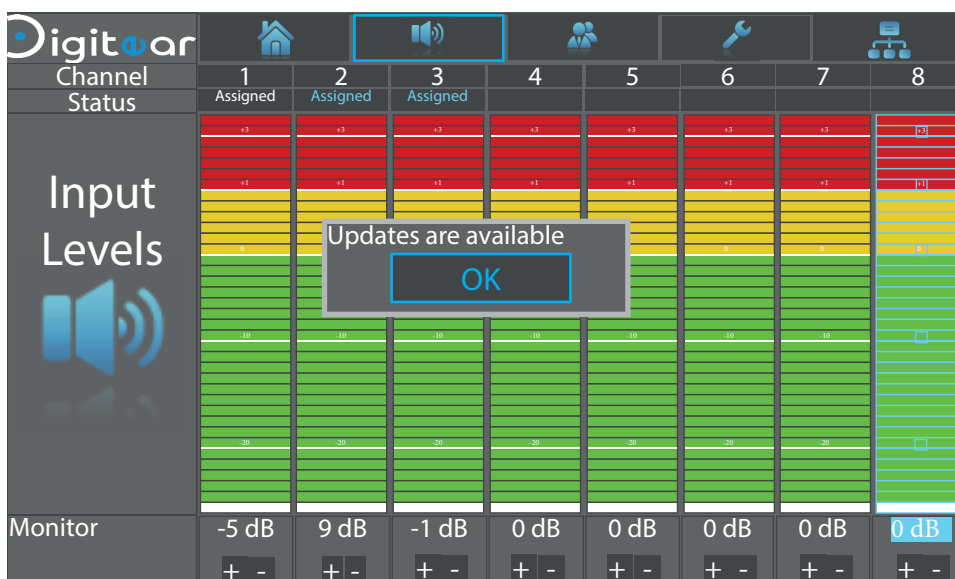
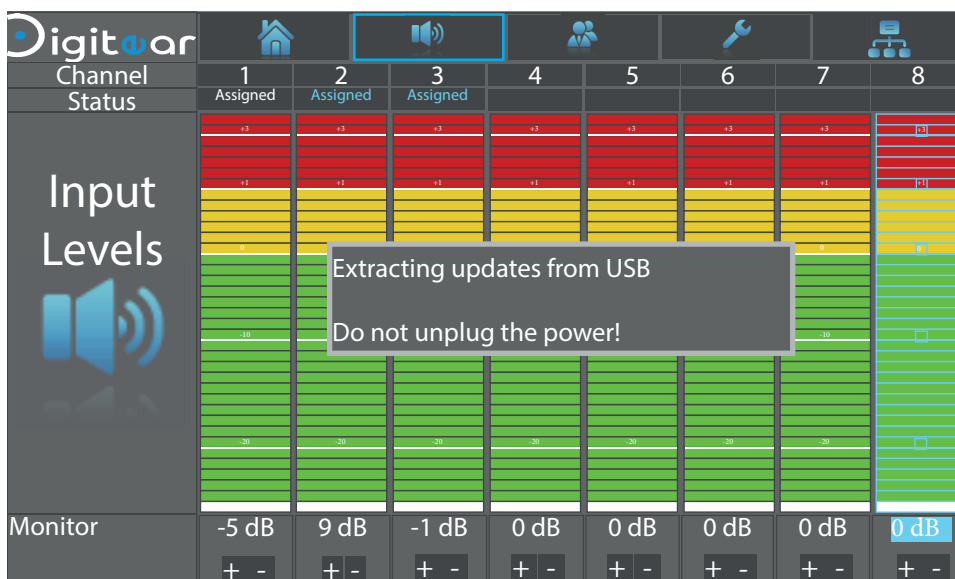
Step 3 :

When the transfer is finished, eject the USB drive, and insert it in a USB port on the back of the Tx-Box.

Step 4 :

Once the key is inserted in the Tx-Box, the following message will be displayed on the Tx-Box’s screen.

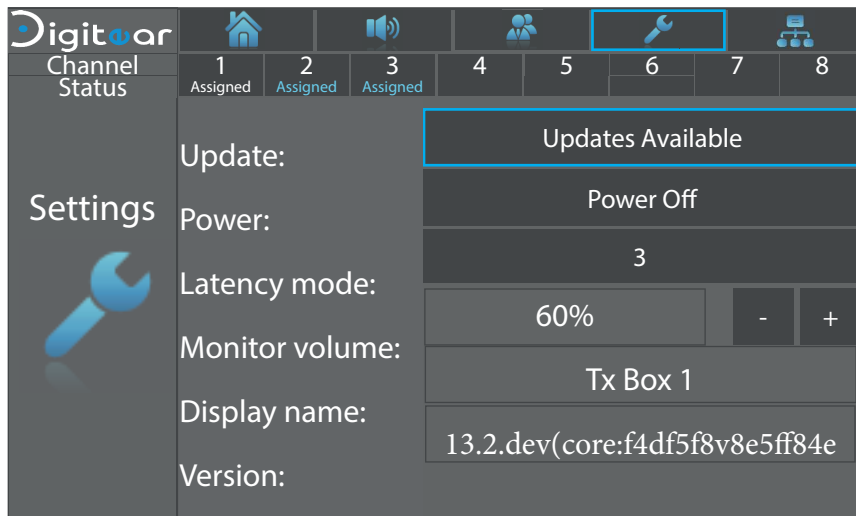
Several seconds may go by between the two messages




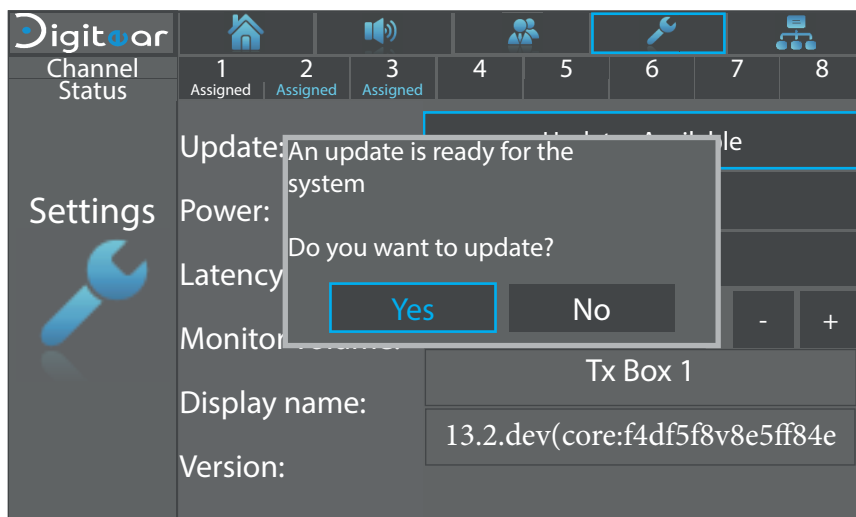
Step 5 :

Go to the «SETTINGS» tab:

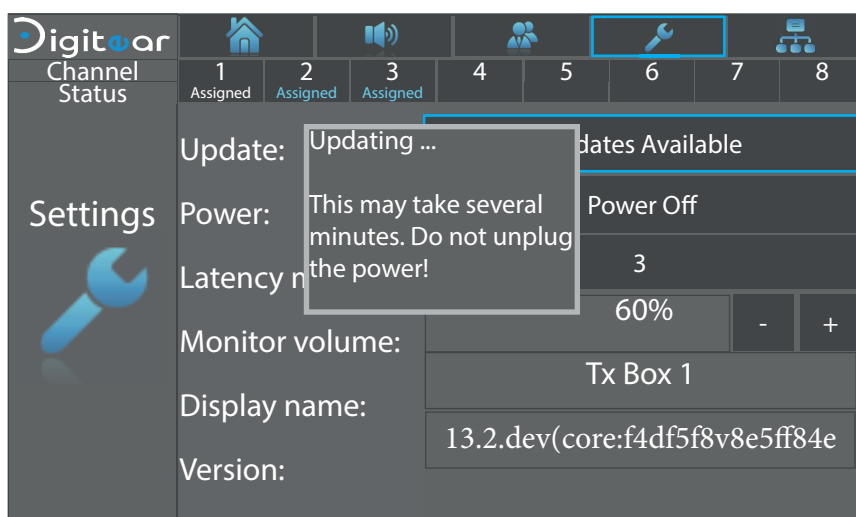
Go on «Updates Available » and click on 



Go on «YES» and click on 

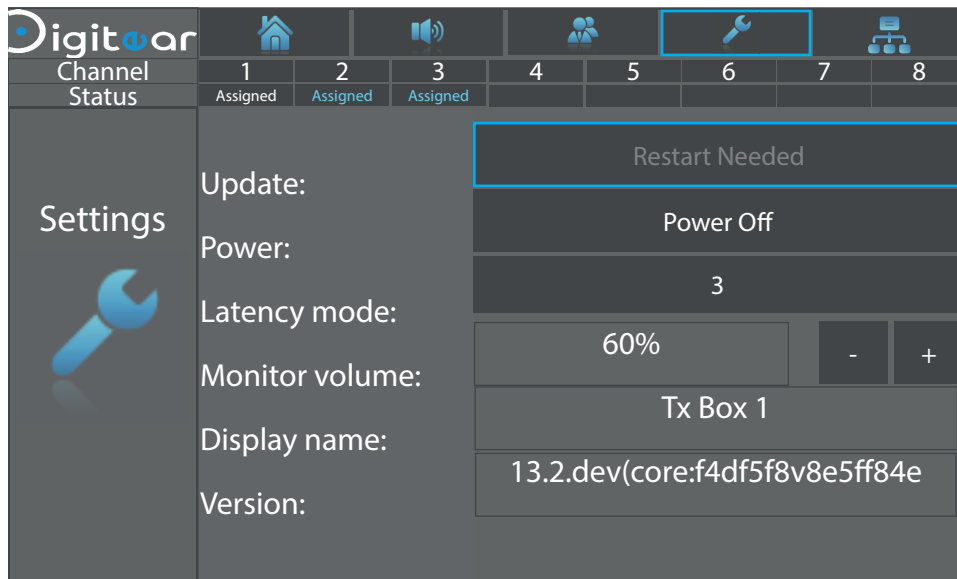


Update in progress



Step 6 :

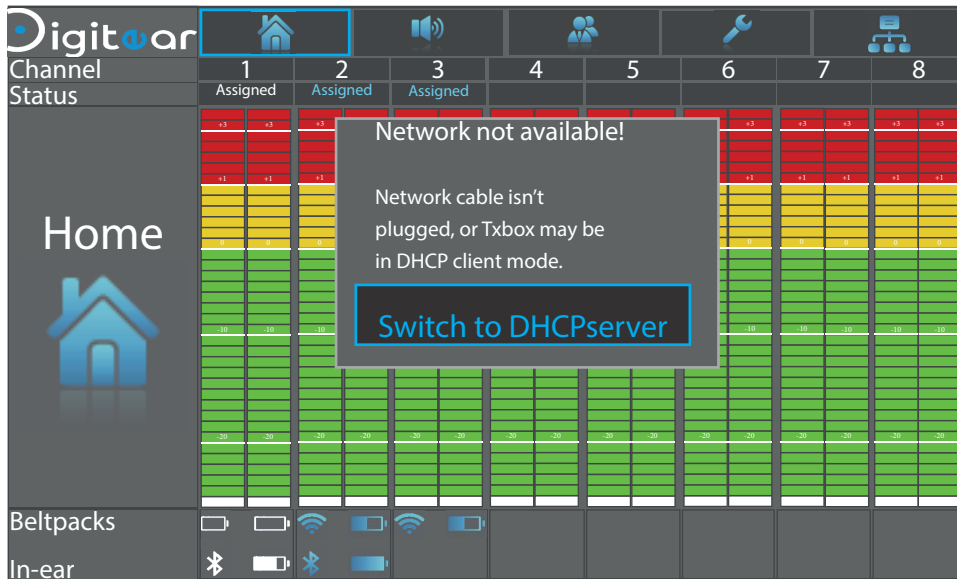
Once the files are installed, restart the Tx-Box and the Beltpack to apply the updates.



6 - 7 Message on power on

During your first use, in a configuration consisting of only one Tx-Box, it will display a message asking if it needs to pass in «DHCP Server»

Click on 



DHCP Server: The DHCP Server distributes available IP address to other elements in the network.

DHCP Client: THE IP address is provided by the DHCP Server.

For use on several TX-Box, one TX-Box in «DHCP server» must be present on the network, the others would have to be in «DHCP Client».

6 - 8 Deactivation of a channel

In the channels' menu it is possible to deactivate a channel if it is not in use. With the navigation button, scroll down to the «State» line and click on «Disabled».



When you go back to the «Home» menu, channel (in this example) is grayed in, meaning the channel is now inactive.

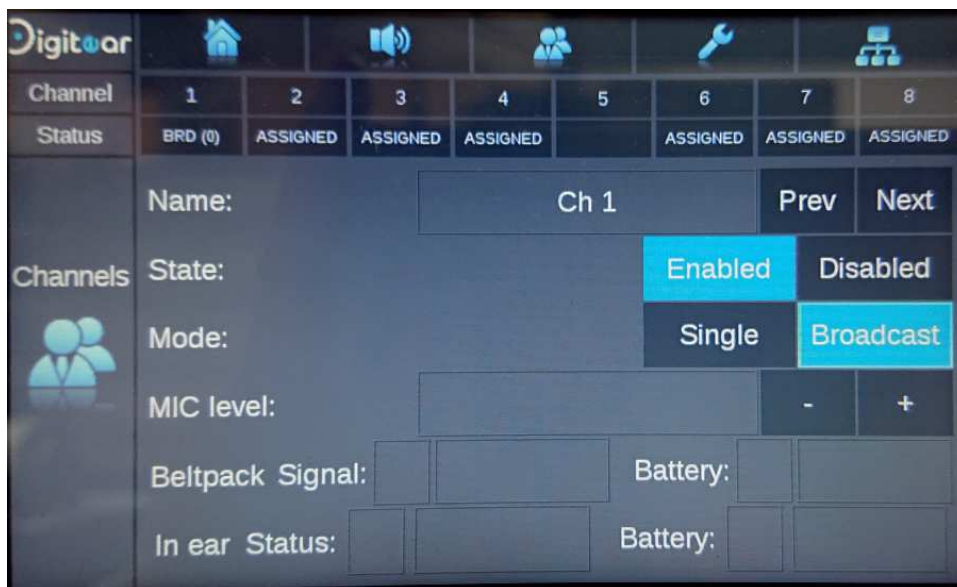


6 - 9 Broadcast mode

In the «Channels» menu, it is possible to activate the Broadcast mode for one channel only. With the navigation button, scroll down to the «mode» line and click on «Broadcast».

All the Beltpacks on this channel will listen to the same audio signal (Maximum: 10 Beltpacks).

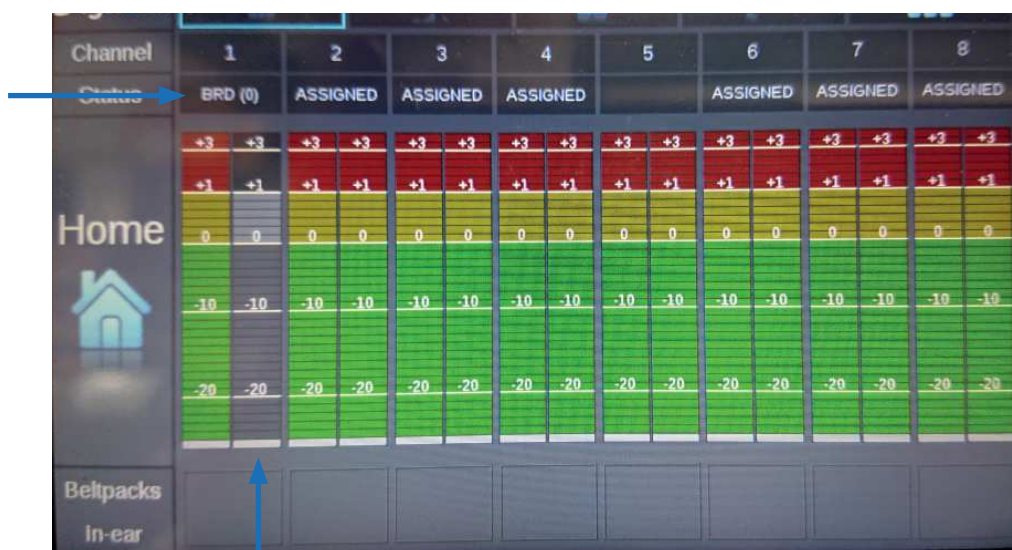
WARNING: In Broadcast mode the «talk-back» function is disabled.



When you go back to the «Home» menu, the bargraph «talk-back» of the channel 1 (in this example) is grayed and the abbreviation «BRD (0)» appears on the channel.

«BRD» for Broadcast mode

(X) corresponds to the number of the Beltpacks connected to the Broadcast channel.



TALK-BACK OFF

7 - TECHNICAL FEATURES

Connectors

Power supply	OUT : 12V / 4,2A
RJ45	100Mbits/s
USB 2.0	2 Ports
Terms of use	+5°C to +45°C
XLR 3	8 inputs / 8 outputs 0db
RJ 11 (interface DE-GU- GPIO Box connector)	1
JACK 3,5mm	1

Materials

Weight	4 kg
Height	19" - 2U rack

8- WARRANTY

Elements NOT covered by the warranty

This warranty only covers faulty parts and the manufacturing of the product. This warranty does not cover:

- Periodical maintenance and reparations or replacements of parts due to normal wear and tear
- Shipping and handling costs and the risks associated with the transportation and the retrieval of the product by the final customer
- All adaptations of the product which would be necessary to make it comply with the technical and/or security standards in a country other than the one for which the product was originally designed and manufactured for
- Consumable elements: elements that are scheduled to be replaced periodically during the life of the equipment (for example: ear tips, batteries over 12 months after the purchase date, and connection cables)

The deteriorations or defects of the product resulting in:

- A poor usage or installation of the product (for example: using the product in a way not intended, installation or usage not standard to **Digitear**'s instructions and to the technical standards or security in the country where it is used)
- Maintenance of the product non-compliant to Overline Systems' instructions or negligence in maintenance of the product
- Any mishandling of the product (ex: false manoeuvre, fall, shock, impact, immersion) or an inappropriate environment (ex: bad aeration, vibrations, exposure to humidity or excessive heat, contacts with a product (material or software), consumable, accessory or device non compatible or defective, an adaptation of the product towards its end of being put to conformity with technical or security standards in a country other than the one the product was originally designed and manufactured for
- A modification or a reparation of a product not made by a third party approved by Overline Systems
- Sinister (ex: fire, flood, earthquake, lightning)

Produit: **Digitear** (TX-Box, Charger Box, Beltpack, In-Ear)

24 months pieces or workshop labor

Battery: 12 months (starting the purchase date)

ACCESS POINT: covered by the manufacturer's initial warranty

Accessories alone will not be taken in by our reparation centers.

9 - CERTIFICATIONS

This product is for indoor use only.

Produit uniquement certifié pour une utilisation en intérieur

This is a class A product.

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Ce produit est de classe A.

Si le produit est utilisé dans un environnement domestique, il peut produire des interférences radios. L'utilisateur doit prendre des précautions lors de l'utilisation afin d'éviter les interférences.