

# AIRLITE

*Radio for Everyone...*



## PRODUCTION | ON AIR CONSOLE

Eight dual inputs  
Built in auto Silence detector  
4 USB in/out stereo channels  
Play out USB control section included  
AES 3 digital program output optional  
Drop through design

Ideal for Production, Voice tracking and On-AIR  
CRM, Announcer and Phone outputs  
Bi directional Cue communication buss  
Built in VOIP functionality  
Cleanfeed output for external Hybrids  
Internal NON STOP switching



# Your Personal Radio Control Center

**W**ith the AIRLITE mixer you can now own a modern radio mixer for a very attractive price. This new and hand-built piece of precision equipment is built around proven low noise circuitry.

It is an intelligent mixer with an internal USB control section that comfortably enhances daily use and even has a silence detector built in. It is a reliable workhorse for the self-op production D.J. There is a built in Telephone VOIP functionality, 4 in/out channels of stereo USB and 3 very low noise Mic inputs. The AIRLITE is ideal for ON-AIR, Production and is perfect for streaming to the web.

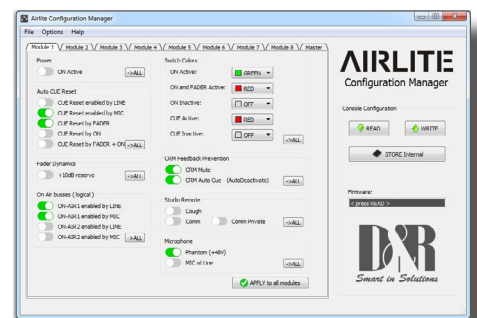
The AIRLITE accepts and instantly controls a maximum of 4 in/out stereo channels from your Play-out software. It is built into a heavy duty RF shielded chassis, designed with elegantly rounded corners. Easily “drops” into your furniture it gives that exciting and contemporary radio look. Built with a strong powder coated front panel for durability and is the result of more than 42 years of experience at D&R.

## MIC, LINE, USB and INTERNAL VOIP

The AIRLITE mixer has 3 balanced, phantom powered mic inputs with inserts for voice processors. Eight stereo line inputs, 4x USB channels and 1x Telephone VOIP channel. If you want to connect to the analog phone line a Cleanfeed output is provided for to connect to an external Hybrid. Only one physical USB connection is the interface to transfer 4 stereo audio channels from and to your PC plus all control data from the control section and the software meter application.

The VOIP Channel 8 has its own USB connector to be able to have your calls coming from another PC. Connection to a second USB connector on your main PC is also possible. Dedicated Talk back to the VOIP channel makes conversation with callers very easy.

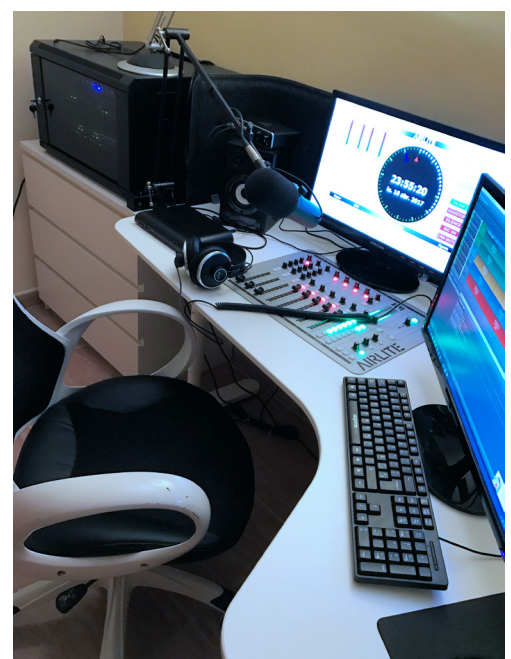
The Cue bus is also a communication buss, so the announcer can easily have a discussion with the caller from an outside broadcast. Just hit the two related CUE buttons and you're talking. The AIRLITE features a 3 band Equalizer on channel 1-3. The stereo Aux send can also be selected pre or post fader. All high quality low noise mic inputs have a built in low cut filter.



## SMART MODULE PROGRAMMING

The AIRLITE modules can be easily tailored to your own needs with the included software program page shown above.

All 8 modules have their own page, where you can program Cue reset enabled by Line, Mic, Fader, On etc. You can even choose if you want 10dB fader gain or not. Both ON-AIR busses 1 and 2 can be enabled by Line or Mic. A great feature is the ability to program your own switch colours, activate the CRM mute module and program the Studio Remote. Additionally if you want your Phantom power on or off individually programmable per channel this can also easily done. All settings can be stored(write) and loaded (read), see right hand part of the software page above.



# AIRLITE-USB

I Bet You Missed Me... Until Now

## STRAIGHT FORWARD MASTER SECTION DESIGNED WITH RADIO IN MIND

The master section is designed for Radio. It houses all the master controls such as the stereo Aux send and return, Control Room Monitor (CRM), Announcer and a high level phones output. Auto Cue provides both the Announcer and CRM output to follow the CUE selections. CUE reset cancels all activated Cue selections. The Control Room Monitors are muted automatically to cut control room level when the D.J. Mic is active. A Studio output (announcer) that normally follows the main output can be routed by activating Auto Cue in a way so any Cue signal that is selected can be heard.



Three Talk-back switches individually activate the built-in talkback electret microphone which has its own gain control for communication to VoIP, Announcer and Aux outputs. Talkback is available at all outputs at the same time.

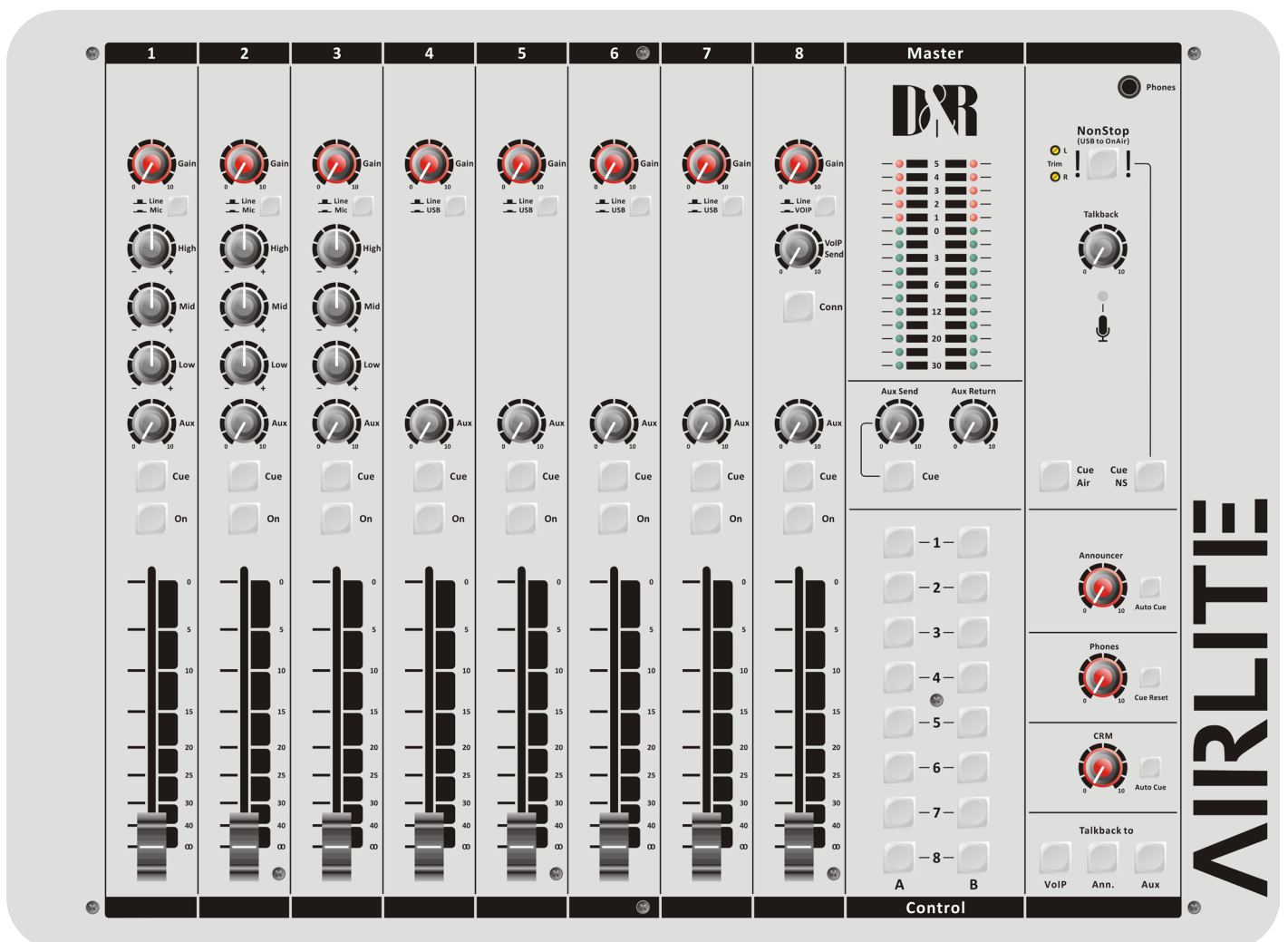
## SMART MASTER PROGRAMMING

The master section has various options to fine trim your mixer to your needs. On the left you see the software page that can be loaded and gives you an overview of the possibilities.

There are settings that adjust the Silence Detection parameters for Threshold, Interval time and the source. There is also a section to invert the GPO 1 and GPO 2 triggering outputs.

On the right side of this software page you can program the switch colours to your choosing.

The CUE bus can be set for interlocking, which means that when you select another CUE the previous selected one automatically switches off.



# All you need to make Radio...

## MIC LINE INPUT CHANNEL

The AIRLITE has an internal USB voice tracking bus that can be directly routed to a play-out system with Voice tracking capabilities, such as our AIRCAST software.

A very low noise mic input, followed by a 3 band equalizer, drives a smooth running fader that controls a stereo VCA.

As a result noisy faders will never happen with this design. The fader start is electronically detected by the control voltage generated by the fader.

The AIRLITE can also be used for production while ON-AIR when it is put into the NON-STOP mode. The NON-STOP switch (located in the master section) routes the first USB channel directly to the main outputs. It does this automatically when the internal silence detector detects silence. (these parameters can be set in the software). The CUE switch is also a communication system to easily talk to callers from outside. The ON switch and the fader have "faderstart" capabilities if required. A software configuration manager is part of the delivery to configure your personal settings for modules and master. The AIRLITE is designed for ON-AIR Internet radio production work in the studio or at home.



## AIRLITE USB CHANNEL

Every AIRLITE USB Channel can accept a stereo source from a play-out system such as our AIRCAST. Levels can be set by the gain control. Pre listening can be done by the CUE switch and the ON switch can activate tracks of the Play-out system. This can also be done by "faderstart". The fader controls a high quality stereo VCA.

If you run a classic station with CD players, the USB input can be also switched to stereo line mode. The CUE is also a communication bus that allows callers on the VoIP channel to listen to the music and DJ without being on-air.

## USB ROUTING

There are four USB stereo in-and outputs available on the Airlite. The inputs are internally routed to channel 4 to 7 where the USB input of channel four is also routed to the Non-Stop switch.

The USB outputs, seen as inputs on your PC, are connected to the Program output, Aux send, Voice track and Air-in. The Air-In input can be connected to your external processing unit and in this way you can stream your processed signal directly to the Internet without the use of an extra sound card.



## VOIP CHANNEL

Channel 8 of the AIRLITE mixer is a dedicated Voice Over Internet Protocol channel. (VoIP). Simply plug the dedicated VoIP USB cable from the mixer to your PC and set up a connection, for instance with SKYPE or any other provider that offers telephone services over the Internet.

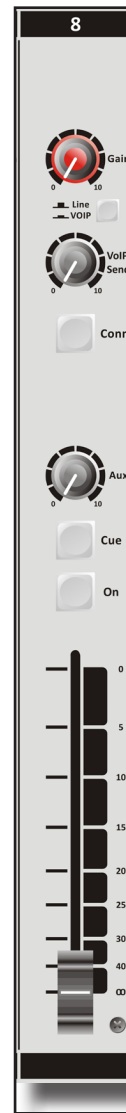
It needs to be a service provider that allows you to use VoIP for your telephone connections.

A separate Gain control and VoIP send control let's you adjust the send and return levels. An incoming line can be pick up by the Conn button, pre-listened by the CUE switch and brought into your radioshow by the ON switch and/or Fader.

If you want to use an Analog Hybrid, we have added an extra cleanfeed output on the back of the console to feed an external Hybrid and return the signal in the VOIP channel with the input selector selected to Line.

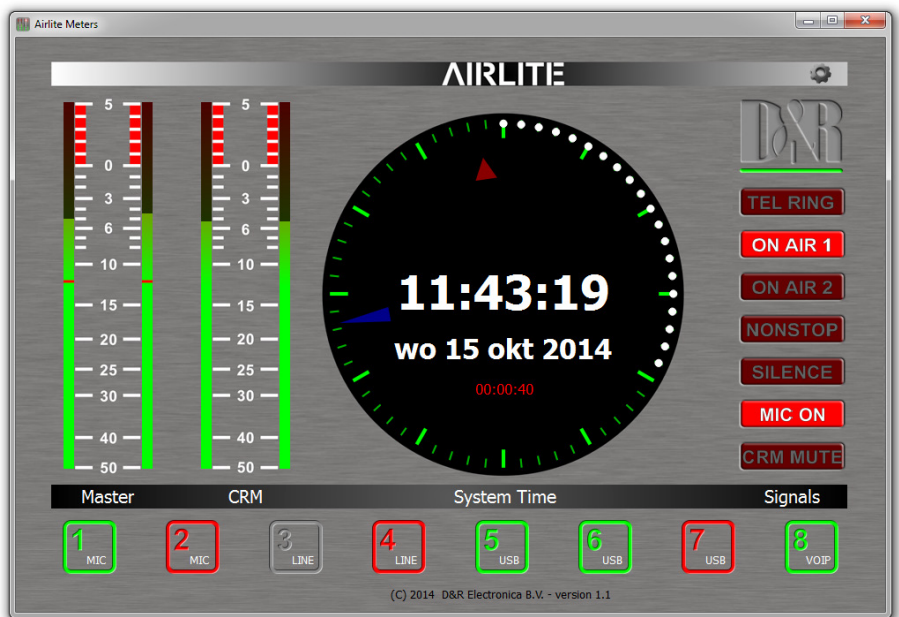
The internal built in Electret Talkback microphone can be routed to the caller outside the broadcast by activating the TB to VoIP switch in the master section.

Or you can use your DJ mike by activating the CUE switches in both the DJ channel and the Telco channel.



Back panel view

# The Software

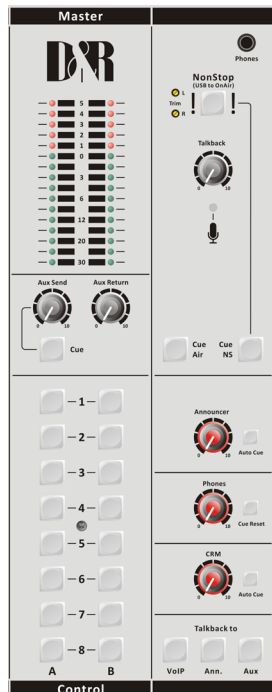


## USB CONTROL SECTION

On the right side of the AIRLITE mixer you see 16 illuminated (green/red) switches. These switches can be used to control functions in your Radio Automation software such as starting jingle machines.

Recording a voice track while ON-AIR is also possible. The USB control software, included as part of the package, can be easily programmed to make radio even more exciting.

Any switch can perform a function of your play-out software that you decide to control. Master controls can be found in the master section for Announcer, Phones and CRM. When activating the Auto Cue for CRM and the Announcer, any selected CUE can be heard. As soon as the DJ mic opens the CRM mutes to avoid feedback but only if CRM auto Cue (auto deactivate) is set to ON. TALK BACK to all important outputs is directly accessible on the right hand side. The NON-STOP switch instantly routes the first USB stereo signal (channel 4) to the main outputs which makes the mixer available for (pre)production again.



As soon as the DJ mic opens the CRM mutes to avoid feedback but only if CRM auto Cue (auto deactivate) is set to ON. TALK BACK to all important outputs is directly accessible on the right hand side. The NON-STOP switch instantly routes the first USB stereo signal (channel 4) to the main outputs which makes the mixer available for (pre)production again.

## POWER SUPPLY AND MORE

The AIRLITE is powered by an external heavy duty switched mode power supply that accepts AC voltages between 90 and 230 volts. The control surface can be easily mounted inside furniture as a drop through unit. All in and output connections are conveniently made on standard Jack / Cinch and XLR connectors. Power supply input is by way of a rock solid powercon connector.

## SOFTWARE

The AIRLITE sends out control signals over USB, based on the HID protocol. This also means that the main output signals can be displayed on a TFT screen (not supplied) in a beautiful meter application. Program and CRM stereo signals are shown on a high resolution PPM. On the right side you see the status of various console functions. Indicators such as ON-AIR 1 or 2, NON-STOP mode, Silence detection, Mic-On and CRM mute. Channel status and input selection is displayed at the bottom of the TFT screen (not supplied). At the same time this software application shows you a professional looking Radio clock that is synchronized with your local PC and an NTP time server.

## SUMMARY

The uncluttered and clearly understandable features make it the ideal tool for rapid on-the-spot radio programs. The AIRLITE is compact, reliable and ideal for production rooms. It can also double as an On-Air mixer or implemented as your own Internet Radio station. If you need more info than presented here in this brochure, visit our web page of the AIRLITE on [www.d-r.nl](http://www.d-r.nl). You can download the manual for even more in depth info.

## INPUTS

Mic inp : bal, 2 kOhm, XLR, 48 volt Phantom.  
 Noise : - 128 dB (A-weighted).  
 Sensitivity : - 70dB min, OdB Max.  
 Insert : Jack unbalanced send 600 Ohm -10dBv.  
 Aux Ret. : unbalanced 10kOhm -10dBv.  
 Line inputs: unbalanced 10kOhm, Cinch.  
 Gain : range of 40dB.  
 USB : 4x Stereo in and 4x stereo out.  
 Air input : - 10 dBv at 10kOhm stereo  
 Aux ret. : - 10 dBv at 10kOhm stereo

## USB

Fully compliant with USB 2.0 playback and record mode. 4x Stereo in and 4x stereo out.

## USB CONTROL SECTION

16 free assignable illuminated switches based on the HID protocol.

## VoIP CHANNEL

Dedicated USB connector for VoIP processing.

## OUTPUTS

Left/Right : + 6dBu bal./XLR. -10dBv/Cinch  
 CRM/Aux : + 6dBu unbal. on Cinch.  
 Headphone : 16-200 Ohm, Jack. (TPA 6120)  
 Announcer : 16-200 Ohm, Jack. (TPA 6120)  
 USB out : Program/Aux/Voice track/  
 Non Stop

## EQUALIZER

High : + / -12 dB at 12kHz shelving.  
 Mid : + / -12dB at 1 kHz bell curve.  
 Low : + / -12dB at 60 Hz bell curve.

## OVERALL

Frequency response : 10 - 60.000Hz.  
 Distortion : < 0.01% max at 1 kHz.  
 GPO/Mic On : Opto/FET's. (24volt/50mA).  
 Led bars : 16 segment leds.  
 : + Software meter application.

## CONTROL SOFTWARE

A software program is included in the delivery for programming the Control section (Airlite Virtual Keyboard Mapper) and internal mixer settings.

## DIMENSIONS

Left-Right : 482mm  
 Front panel thickness: 2mm  
 Radius Corners : 20mm  
 Front-Back : 365mm (8HE).  
 Height : 101,50mm.  
 Weight : 9kg.  
 Drop through hole : 449 x 344 mm



# Signal Flow

