AIRLAB MK-2

A WORLD WIDE PROVEN BROADCAST SYSTEM

The new AIRLAB MK-2 radio ON-AIR console is D&R's solution for applications where features and functions has to be weighed up against operational simplicity. A simple direct accessible control surface combined with intelligent instantly reset able digital functions enables customizing to station requirements and even to personal requirements because of the use of a personalized chip card holding all important functional data. Purchasing choices are straightforward: the welded steel frame will accommodate a maximum of 16 triple input modules with or without EQ (and its knobs), a digital in/output module and an unlimited number of Telco modules (up to 16) plus the master section with script space. The main outputs are electronically balanced (transformer balancing is an option) and the majority of connectors are on balanced XLRs. With a sales track record (2012) of more than 300 consoles in the field, this On-Air mixing console has proved its popularity and… reliability.

AIRLAB MK-2

TRIPLE INPUT MODULES.

The AIRLAB triple input module combines a high quality mic input with two stereo line inputs. The Mic input is electronically balanced with the industry standard SSM 2019 low noise mic pre-amp. A 48 volt phantom power switch is provided for. Apart from the gain control we have built in a front panel accessible trimmer to adjust the mic gain range.

A low cut filter can be activated by a jumper on the PCB. The mic input (with jack insert) is located at the back of the console on female XLR connectors.

The unbalanced stereo line B input, accessible on Cinch connectors, can be fitted with an RIAA plug-in PCB to also accept phono players.
The Line A input is balanced and on XLR connectors.

There is a choice out of EQ or non EQ modules and a digital in/output module with the same front controls but now interfacing with digital sources through AES3. The fixed, +/- 12dB limited three band equalizer is followed by a SUB and PROGRAM assign switch that routes signals to both outputs allowing production work to be carried out during broadcast.

The stereo Aux. control can be selected pre or post VCA/MUTE, depending on jumper settings on the PCB.
The stereo Aux. send is followed by a Pan control, a CUE/SELECT switch and the channel ON switch disabling Cue, although it can be reactivated while the channel is on.

It is also possible to activate CUE via the channel remote.
Cue becomes a Cough facility when the Mic input and the "ON-AIR" status is selected.
The AIRLAB is equipped with linear K-ALPS 100mm faders controlling high quality "THAT" VCA's,
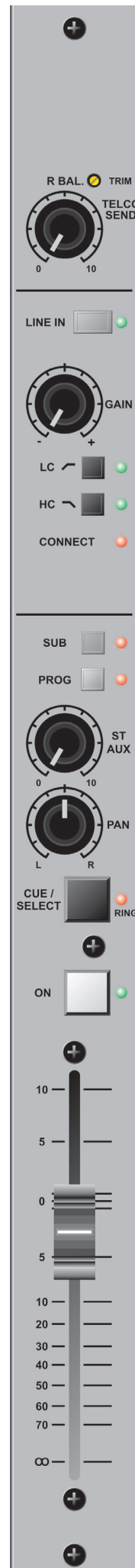
TELCO MODULE.

The AIRLAB has the possibility to be loaded with up to 16 Telco modules. Due to an ingenious Mix-Minus system, alignment is only necessary during installation.
The AIRLAB Telco module is a straight forward design making communication very easy. The first control is the front panel accessible, R BAL. trimmer for side tone adjustment, only necessary during installation.
The Telco Send knob controls the outgoing signal to the caller.
This signal is coming from the PROGRAM or SUB bus. The line input can be switched to a balanced XLR input connector to accept an external (digital) hybrid instead of its own internal hybrid. A separate input gain control with HP and LP filters can be used to enhance intelligibility.
The SUB and PROGRAM assign switch routes the signal to both outputs if needed.
The stereo Aux. control has jumpers that select its source to be pre or post VCA/MUTE.
A Pan-pot and CUE/SELECT switch plus the ON switch completes the Telco module.
A 100mm linear fader controls a high quality THAT VCA, eliminating any fader wears out in the future.
A Caller can be taken with the ON switch when the fader is up or with the CUE/ SELECT/RING switch when the fader is down.
When CUE is active in the TELCO module, the caller is connected to the CUE bus and also the engineers talk-back, but does not go ON-AIR yet as the fader is down. It is possible to connect both the CUE and ON switch to a remote unit, allowing a director to control the broadcast.
A "Connect" LED positioned below the High Cut switch indicates that the internal Hybrid is active.
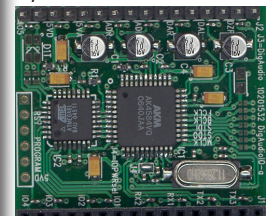
AIRLAB DIGITAL IN/OUT PCB

CENTRALISED MASTER SECTION WITH PROGRAMMABLE UTILITIES AND SCRIPT SPACE.

The master module is divided in three sections. The first "module" houses the TAPE SEND controls which selects the feed to the tape output. This could be either the SUB output signal or the AUX. output signal.

The ST Aux master controls the outgoing Aux signals from the input modules. A Talk-back to AUX switch is provided for.

The lower part of this "module" houses the Control Room Monitor section that can be fed by an EXT(ernal) stereo input, the stereo Aux output, a stereo ON-Air signal or the stereo SUB output signal.

All selections have LED indicators and the lowest positioned switch has priority over the input selectors positioned directly above.

The CUE BALance pot adjusts the balance between the PROGRAM output or another selected input source and the CUE signal (when selected).

A cue LED indicates when a CUE signal is on the CRM or Phones.

Separate Phones and CRM controls, with a DJ mic on mute indicator complete this section.

COMMUNICATION IS ON BOARD.

The second "module section" houses the Talk back level control for the electret microphone and the Studio section, usually used to monitor the PROGRAM output, with the ability to switch to from Air, from SUB or the Control Room Monitor signal. When the studio mic is open the studio output is muted, indicated by the studio MUTE LED.

The studio output is fitted with a Talk-back switch Communication is very important in broadcast studio's, so we decided to go for three separate outputs. One for Studio, one for Guest's) and one for the Announcer.

All outputs receive the same signal that is selected by the input selection switches, or the Program output signal when no switch is activated.

The Studio output has a mute LED indicator when the output is muted.

All three outputs have a direct Talk back access switch for instant communication between control room and presentation area.

The Cue buss is the main communication buss in the console. When a listener calls the station, by pushing the Cue switch of the Telco module you have him or her directly on the control room monitors.

At the same time the internal electret microphone is activated so you can immediately respond. The announcer can depress his remote communication button and is linked to the same Cue buss, so that is three of you talking with each other.

The AIRLAB has four VU meters of which two are always connected to the main outputs and the other two are following whatever is heard on the CRM.
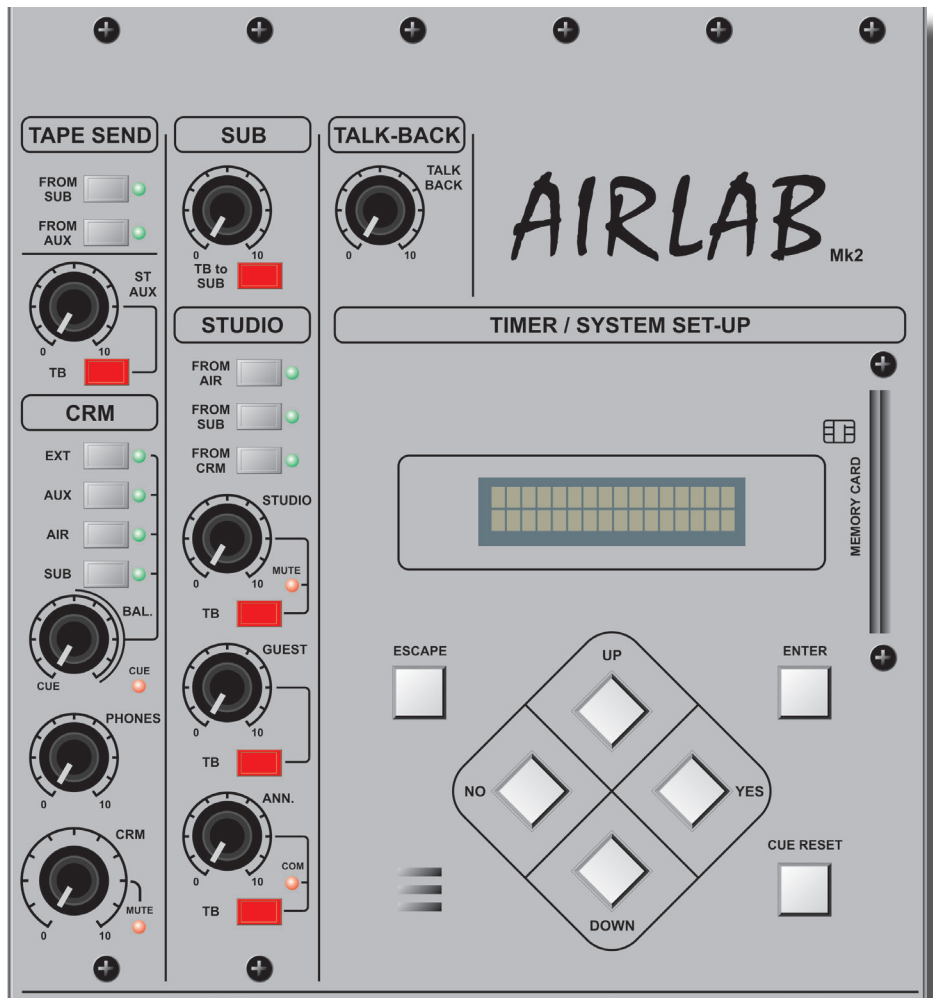
SOFTWARE CONTROLLABLE SET-UP CAN BE STORED ON A CHIP CARD.

A speciality of the AIRLAB is its ability to program all sorts of internal settings and then save it to a personalised chip card for instant reset. The following settings can be programmed.
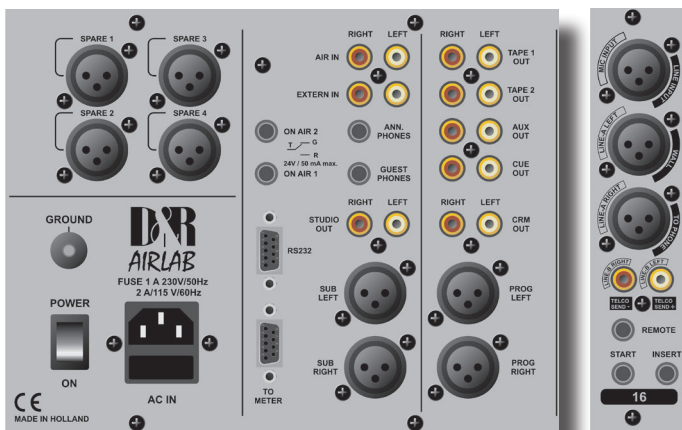
* Module set as DJ mic input.
* Module set as Announcer mic input.
* Module set as Studio mic input.
* Start/Stop plus Pulse/Cont per module.
* Cue start active
* Fader start or "ON" start per module.
* External remote (in)active per module.
* Timer start pulse per module.
* On-Air control signal on/off per module.
* Auto communication Announcer on/off.
* Auto CUE reset on/off.
* Auto CUE on/off.
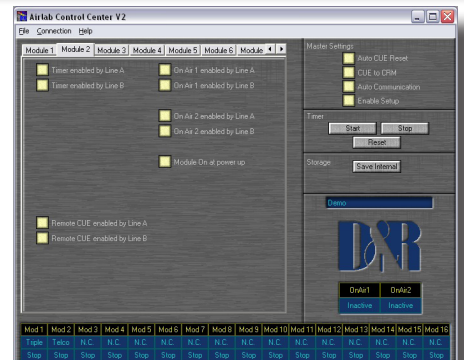
A BUILT IN TIMER MODULE EXTENDS THE POSSIBILITIES OF THE AIRLAB.

There is a Timer function built in the AIRLAB for time related measurements such as duration of an incoming/outgoing call. Timer set-up can be software controlled and stored.

The AIRLAB is D&R's latest addition to a growing series of broadcast consoles. Its high quality clean audio path with a minimum of hardware switches in the audio path is your guarantee that this is a reliable radio console for daily broadcast for many years to come.

Triple Channel

LineA L R
LineB L R
Mic
Start
Remote In/Out

LineB Mic
RIAA
Gain
3 Band Eq
Pan
VCA
Pre/Post
Aux
Logic
On
PFL
Fader
CUE
CUE

PROG
SUB

Telco Channel

LineIn
net
phone
Start
Remote In/Out
LineOut

LineIn
Gain
LC HC
Pan
VCA
Pre/Post
Aux
Logic
On
PFL
Fader
CUE
CUE

PROG
SUB
cue-1
Prog-1
Sub-1

Master

PROG Left right
Prog-1
Sub-1
SUB Left right

Left Aux right
Left CUE right

CUE Left right
cue-1

TB TB
TB
Studio TB-STUDIO
Ann TB-ANN+DIM
Guest TB-GUEST+DIM
Sub. TB-SUB
Aux TB-AUX

Auto Comm. Ann.
Auto Cue
Auto Cue Reset
Logic
CRM-MUTE
CRM-CUE
STUDIO-MUTE
ANA-COMM

Prog. Out
TB-SUB Sub. Out
TB-AUX Aux
CUE-L CUE-R Cue

Ext. Aux Air Sub
PROG-L EXT-L PROG-R EXT-R
AUX-L AUX-R
AIR-L AIR-R
SUB-L SUB-R
CUE-L CUE-R
cue-ball
Phone
Mute
CRM

Air SUB CRM
PROG-L AIR-L PROG-R
AIR-R
SUB-L SUB-R
CRM-L CRM-R
CUE-L CUE-R
TB-ANN
Ana.Comm
TB-GUEST
Ann
Guest
Mute
TB Studio

Sub Aux Tape Rec.
PROG-L SUB-L PROG-R
SUB-R
AUX-L AUX-R

Mix Left Mix Right
CRM Left CRM Right

OnAir1 OnAir2

LCD
Enter Esc Up/Yes Down/No

SPECIFICATIONS

INPUTS:
Mic inp: bal. 2kOhm - 128dBr
(40dB gain range plus 30dB of trim range)
Line inp: bal 10kOhm +/- 20dB gain range.
Telco input: (XLR) 10kOhm bal. 0dBu nominal.
CMRR: mic input max.. gain: 1kHz 85dB
Line inp: max gain 1 kHz 80dB

EQUALISATION:
+/- 12 dB @ 10kHz shelving
+/- 12 dB @ 3kHz bell curve
+/- 12 dB @ 60 Hz shelving
Low Cut: 80Hz, 12dB per octave (mic only)
Low Cut: 200Hz, 6 dB per octave (Telco only)
High Cut: 8 kHz, 6 dB per octave (Telco only)

OUTPUTS:
Left/Right: +6dBu electronically balanced
(transformer balancing is an option)
Sub: +6dBu electronically balanced.
All other outputs: +6dBu unbalanced.

OVERALL:
Frequency response: 20-20.000 Hz +/-0.5dB
Harmonic distortion: 0.035% (VCA in, 2nd harm)
Crosstalk: less than -90dBr
Noise: -86dBr
Headroom: +22dB internal, 16dB on outputs
Mix-Minus rejection: @1kHz -60dB
Channel fader attenuation: 1kHz, 100dB

REMOTES:
All channel remotes are on stereo jack sockets.
Start/Stop switching is by isolated reed relays.

DIMENSIONS AND WEIGHT

50 kg / 110 Lbs
Drop through mounting hole dimensions:
590mm x 775mm

For more info on this and many other broadcast
consoles contact your nearest dealer or

AIRLAB DIMENSIONS

17.00 mm
72.00 mm
680 mm
39.50 mm
FRONT
TOPVIEW/CUTOUT DIMENSIONS
776.00 mm
BACK
855.00 mm
591.00 mm

D&R
Since 1972