

# AIR

SHAPING THE INVISIBLE...

## SERIES



WORKING WITH AIR

  
**dynaudio**acoustics  
IF IT'S THERE - YOU'LL KNOW IT

## The Sound of AIR

*Shaping the invisible - Working with air*

Engineering, producing or performing – you are shaping invisible sound waves while constantly relating to what you hear. Combining science and technology from Dynaudio Acoustics and TC Electronic, AIR series is a giant step in monitoring. The AIR series delivers previously unheard precision and transparency. Don't take our word for it, trust your ears and work with AIR while shaping the invisible....

## Integrated Solutions

AIR Series goes far beyond conventional monitor performance – both in terms of sound, operation and thinking. An AIR system always adds up to a complete and integrated solution for critical monitoring. It consists of a number of intelligent components that communicates through a network – in stereo as well as in multi-channel systems.

The TC Link network distributes control information as well as Audio in-between all system components. This enables controlling a multi-channel system from the sweet-spot using the AIR Remote or the AIR Soft. Combining this network intelligence with "local" intelligence inside each monitor and subwoofer, provides an AIR system with:

- ◀ *Bass Management, with selectable crossover frequency points*
- ◀ *Acoustic Placement Compensation*
- ◀ *Preset Storage and Recall*
- ◀ *Programmable Reference levels*
- ◀ *Level alignment in 0.1dB steps*
- ◀ *All Monitors aligned within +/- 0.2dB precision*
- ◀ *Integrated Parametric EQ's and Delay in each monitor (PC-IP only)*
- ◀ *Central and Remote control of system and parameters*
- ◀ *Digital Inputs (AES/EBU) and Analog Inputs (optional)*

## Precision

Each AIR monitor is calibrated to our target frequency response curve within +/- 0.2 dB at the factory. This precision makes AIR monitors fully interchangeable.

To further ensure precision in any given acoustic environment, all AIR monitors can be level aligned in 0.1 dB steps. Setup the monitors, compensate for placement and align the level of each individual monitors.

## Acoustics and Calibration

The AIR concept provides a lot of fantastic tools for optimizing performance in any given acoustic environment – this being different rooms or placements. Aiming at the same reference sound depending on the standard Placement Compensation possibilities include:

- ◀ *Freestanding*
- ◀ *Wall*
- ◀ *Corner*
- ◀ *Console (on top of Console)*
- ◀ *Console - Wall*
- ◀ *Console - Corner*

## Placement & Calibration Test CD's



The AIR Test CD's are produced for set-up, calibration, and test of the AIR Series. There is one stereo CD and one DTS encoded 5-channel CD.

## AIR 6

Two-way Active Nearfield, 6.5" woofer and 1.1" soft dome tweeter AIR 6, AIR 15 and AIR 20 are developed for both stereo and multi-channel monitoring in any demanding production environment:



- ◀ *Post Production*
- ◀ *Music Recording and Mixing*
- ◀ *Film Editing (smaller rooms)*
- ◀ *OB Vans*

## AIR 15

Two-way Active Nearfield, 10" woofer and 1.1" soft dome tweeter



- ◀ DVD authoring and Mastering
- ◀ 5.1 Production
- ◀ Broadcast
- ◀ Edit suites

### Main Features for AIR 6, AIR 15 & AIR 20:

- ◀ Two times 200-watt amp package in each monitor
- ◀ Bass Management, with selectable frequency crossover points
- ◀ Acoustic Placement Compensation
- ◀ Preset Storage and Recall
- ◀ Programmable Reference Levels
- ◀ Level alignment in 0.1dB steps
- ◀ All monitors aligned within +/- 0.2dB precision
- ◀ integrated parametric EQ's and Delay in each monitor (PC-IP only)
- ◀ Central and Remote control of system and parameters
- ◀ Direct Digital inputs and Analog inputs (optional)



## AIR Remote

This dedicated hardware remote control ensures convenient daily operation. The AIR Remote provides instant access to significant operational parameters such as Global Volume, Reference Levels, Preset Recall and Solo/Mute status for each monitor. The AIR Remote is powered through a 'TC Link' cable connectable via any AIR monitor.

## AIR 20

Three-way Active Nearfield, 10" woofer, 5.5" midrange and 1.1" soft dome tweeter



AIR 20, the first 3-way design to take advantage of the revolutionary AIR technology, sets new standards for performance and precision in 3-way powered monitors. The breathtaking performance has to be heard.



The possibility of rotating the Mid-High module offers the flexibility for optimal placement in a wide range of applications.

### AIR Remote & AIR Soft Main Features:

- ◀ Global Volume control
- ◀ Recall and Storage of three Reference Levels
- ◀ Mute and Solo of individual speakers
- ◀ Preset handling
- ◀ Editing of standard parameters (AIR Soft only)
- ◀ Bass Management handling (AIR Soft only)
- ◀ Backup and restore of parameter settings (AIR Soft only)
- ◀ Setup and installation of AIR Monitors (AIR Soft only)

## AIR Base-1

Active Subwoofer, one 10" woofer



AIR Base-1 is the more compact dedicated AIR series active subwoofer. Intended for smaller rooms AIR Base-1 offers high performance where space is an issue.

## AIR Base-2

Active Subwoofer, two 10" woofers

AIR Base-2 – a dedicated AIR series active subwoofer – is suited for small to medium sized rooms together with AIR 6 or AIR 15.



Graphical representation is not necessarily to scale. Please consult technical specification for exact dimensions.

Through the TC Link (proprietary AIR network) AIR Base subwoofers integrate with AIR series monitors delivering unique features such as integrated Bass Management and presets. The Bass Management and presets can be utilized with both stereo and multi-channel AIR systems in any demanding production environment.

### Main Features for AIR Base-1 & AIR Base-2:

- ✦ Built-in amplification
- ✦ TC Link Input only – for total AIR Series integration
- ✦ Bass Management LP filters with selectable frequency crossover points integrates with corresponding HP filters in AIR Series monitors
- ✦ LFE gain programmable in 0.5dB steps
- ✦ Selectable LFE 120 Hz LP filter (brick wall)
- ✦ Phase adjustment
- ✦ Programmable Reference levels
- ✦ Level alignment in 0.1dB steps
- ✦ Integrated Parametric EQ's and Delay (PC-IP only)
- ✦ Central and Remote control of system and parameters
- ✦ Several units can be linked, increasing acoustic output approximately 6db for each additional unit.

## AIR SOFT

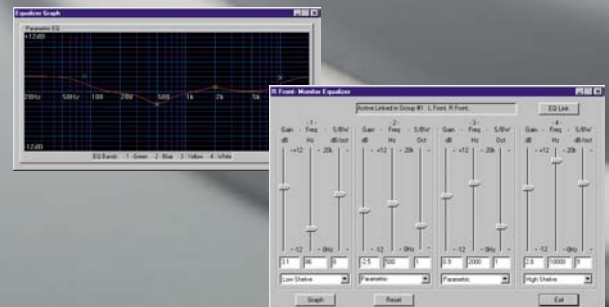
This software remote control application runs both on MAC and PC. It is intended for convenient setup operation and enables users to control AIR system parameters and presets in real-time. In addition AIR Soft can be used to backup settings as well as to upload new software to AIR components.



## AIR PC-IP

Installers Package

Advanced calibration and alignment of AIR systems. The AIR PC-IP - Advanced Installers PC Interface package - is an optional PC software package that gives access to advanced tools inside AIR monitors and subwoofers. Among other things, PC-IP enables EQ adjustment via four parametric EQ's and moreover offers a Delay parameter for each monitor. Setup and presets storage with selective parameter locking is possible and a special measurement mode provides an EQ line signal out from a selected monitor (24bit / 96kHz). PC-IP also opens up for very advanced Bass Management adjustment possibilities e.g. combining different High Pass and Low Pass filters.



**AIR**  
SERIES



## 5.1 – a new challenge!

AIR has been developed with multichannel production requirements in mind. Flexibility and ultimate precision when setting up and aligning a 5.1 system are critical factors for success with multichannel production.

To meet these requirements, all monitors are connected to a network enabled central control that operates important parameters, features and presets.

For instance:

- ✦ *Global level – controls the overall level of a full 5.1 system from central remote*
- ✦ *Recall relative levels for each monitor*
- ✦ *Program and / or recall different reference levels for the system*
- ✦ *Bass Management – switch on / off or change crossover frequency*
- ✦ *Switch "X-curve" target response on / off in system (two variations of ANSI/SMPTE 222M).*

## Stereo monitoring solutions

Every room is different and any adjustment made to a room or monitor placement is critical to the overall monitoring quality. Precise adjustments to each individual speaker

depending on its "environment" in terms of distance to reflective or non-reflective surfaces, is done by choosing the appropriate placement compensation and level alignment of each individual monitor in 0.1 dB steps.

The direct Digital input makes AIR an obvious choice for any digital studio – going straight from your DAW or other digital source into AIR will make the conversion from digital audio right into sound waves. Another source could be connected to the analog inputs allowing you to switch between two different input sources.

## Compare AIR

We encourage comparisons between AIR and other monitors – you are the judge and we trust your ears – but do remember that an AIR System is not directly comparable to any conventional monitors. On top of ultimate precision and sound, an AIR system offers flexibility and convenience previously unknown to any monitors. Achieving similar functionality and features from conventional monitors requires an additional number of external boxes such as – Monitor Matrix, Bass Management, external EQ's and Delay's. With an AIR System everything is integrated and matched  
 – It is right there for you to use!

## TECHNICAL SPECIFICATIONS

### AIR 6, AIR 15 & AIR 20

#### AIR Monitors (master and slave)

System AIR6/AIR15:	2 way Active Near field Monitor
System AIR20:	3 way semiaactive near field monitor
Total frequency response AIR6/AIR15:	40 Hz – 22 kHz / 33 Hz – 22 kHz : +/- 3dB
Total frequency response AIR20:	31 Hz – 22 kHz:
Max. SPL 1m, pair (IEC Short Term) AIR6/AIR15:	128 dB peak / 128 dB peak
Max. SPL 1m, pair (IEC Short Term) AIR20:	131 dB peak
Max. SPL 2m, 5.1 (IEC Short Term) AIR6/AIR15:	126 dB peak / 126 dB peak (no LFE)
Max. SPL 2m, 5.1 (IEC Short Term) AIR20:	129 dB peak
Precision of monitor matching:	+/- 0.2 dB
Port tuning frequency AIR6/AIR15:	45 Hz / 40 Hz
Port tuning frequency AIR20:	40 Hz
Internal cabinet volume AIR6/AIR15:	12.1 liters / 27 liters
Internal cabinet volume AIR20:	35 liters
Bass principle:	Bass reflex
Crossover frequency AIR6/AIR15:	2150 Hz / 2150 Hz (DSP generated)
Crossover frequency AIR20:	390 Hz and 2600 Hz (DSP generated)
Crossover slope AIR6/AIR15:	24 dB/oct (Linkwitz Riley, DSP generated)
Crossover slope AIR20:	12 dB/oct and 6 dB/oct
Tweeter AIR6/AIR15:	Esotec 28 mm / 1.1" soft dome, rear chamber, magnetic fluid, 4mm die-cast alu front, pure alu wire voice coil
Midrange AIR20:	145 mm / 5.5", one-piece molded polyprop cone, 38 mm / 1.5" pure alu voice coil
Woofer AIR6:	175 mm / 6.5", one-piece molded polyprop cone, 75 mm / 3" pure alu voice coil
Woofer AIR15:	240 mm / 10", one-piece molded polyprop cone, 100 mm / 4" pure alu voice coil
Woofer AIR20:	240 mm / 9.5", one-piece molded polyprop cone, 100 mm / 4" pure alu voice coil
Mains Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Power Consumption AIR6/AIR15:	40 W @ 1/8 max power (IEC 60065)
Power Consumption AIR20:	45 W @ 1/8 max power (IEC 60065)

#### Finish

Amp AIR6/AIR15:	Black anodized aluminum back plate
Amp AIR20:	Black painted back plate
Cabinet AIR6/AIR15:	Dark gray MDF baffle, Silver foil
Cabinet AIR20:	Black ash with dark gray MDF baffle
Dimensions AIR6/AIR15 (H x W x D):	338 x 216 x 345mm / 425 x 275 x 395mm (13,3" x 8,5" x 13,6" / 16,7" x 10,8" x 15,5")
Dimensions AIR20 (H x W x D):	575 x 310 x 395 mm (22,6" x 12,2" x 15,5")
	Depth incl. amp and driver: 382mm / 432mm / 432mm (15,0" / 17,0" / 17,0")
Weight AIR6/AIR15/AIR20:	9.8 kg / 15.5 kg / 28 kg (21.8 lbs / 34.5 lbs / 62.2 lbs)

#### Amplifier

Midrange (AIR 20 only) / Tweeter:	Separate 200 W PWM amp
Woofer:	Separate 200 W PWM amp

#### System sample rates

Internal sample rate:	96 kHz (except when slaved to digital input or Word clock Input)
External sample rate:	96, 88.2, 64, 48, 44.1 or 32 kHz

#### AIR Masters only

I/O Connectors:	XLR (2 channels AES/EBU in) 3 x RJ45 proprietary TC LINK AES/EBU (24 bit)
Formats:	BNC, 75 ohm, 0.6 to 10 Vpp
Word clock input:	2 x 16 character dot matrix
Display:	Menu system / four buttons
Operation:	

#### Analog input option

Input connectors:	XLR balanced (pin 2+, pin 3-)
Impedance:	10/3 kohm (Balanced/unbalanced):
Selectable Full Scale Input level:	+9, +15, +21, +27 dBu
Dynamic Range:	> 113 dB typ. (unweighted), BW: 20-20kHz
THD+N:	< -105 dB typ. @ 1 kHz, -3 dBFS
Crosstalk:	< -120 dB, 20 Hz to 20 kHz
A to D Conversion:	24 bit (Dual bit delta sigma sampling at 4.1/5.6/6.1/6.1 MHz)

#### AIR Slaves only

I/O Connectors:	2 x RJ45 proprietary TC LINK
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### AIR Base-1 & AIR Base-2

System:	Active Subwoofer
Total frequency response:	25 Hz – bssmng: 120 Hz, LFE: 2.5 kHz/ 23 Hz – bssmng: 120 Hz, LFE: 2.5 kHz : +/-3dB 119 dB peak / 121 dB peak 113 dB peak / 115 dB peak (no front, rear & center)
Max. SPL 1m, one (IEC Short Term)	+/- 0.2 dB
Max. SPL 2m, 5.1 (IEC Short Term)	30 Hz / 27 Hz
Precision of monitor matching:	37 liters / 78 liters
Port tuning frequency:	Bass reflex
Internal cabinet volume:	1 / 2 pcs. 240 mm / 10", one-piece molded polyprop cone, 100 mm / 4" pure alu voice coil
Bass principle:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Woofer:	40 W @ 1/8 max power (IEC 60065)
Mains Voltage:	
Power Consumption:	

#### Finish

Amp:	Black anodized aluminum back plate
Cabinet:	Dark gray MDF baffle, Silver foil

#### Dimensions

(H x W x D):	310 x 480 x 420mm / 900 x 310 x 420mm (12.2" x 18.9" x 16.5" / 35.4" x 12.2" x 16.5")
	Depth incl. amp and driver: 447mm / 447mm (17.6" / 17.6")
Weight:	18 kg / 29 kg (39.6 lbs / 63.8 lbs)
Amplifier:	250 W PWM amp

#### System sample rates

Internal sample rate:	96 kHz (except when slaved to digital input or Word clock Input)
External sample rate:	96, 88.2, 64, 48, 44.1 or 32 kHz

I/O Connectors:	2 x RJ45 proprietary TC LINK
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### AIR REMOTE

Finish:	Black anodized aluminum and plastic
Dimensions (H x W x D):	120 x 70 x 35 mm
Weight:	250g
I/O Connectors:	1 x RJ45 proprietary TC LINK

### GENERAL FOR ALL PRODUCTS

#### EMC

Complies with:	EN 55103-1 and EN 55103-2, FCC part 15 class B, CISPR 22 class B
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#### Safety

Certified to:	IEC 60065, EN 60065, UL 6500 and CSA E60065 CSA FILE #LR108093
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#### Environment

Operating Temperature:	32° F to 122° F (0° C to 50° C)
Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
Humidity:	Max. 90 % non-condensing

#### Warranty

Parts and labor:	2 year on parts and labor
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### ROOM & DISTANCE

The typical listening distance for **AIR 6** is 1.2-2m / 4-7ft, for **AIR 15** it is 1.5-2.5m / 5-8.5ft and for **AIR 20** it is 1.5-3m / 5-10.2ft

The typical room size for **AIR 6** is 50-100 m<sup>3</sup> / 1600-3500 ft, for **AIR 15** it is 75-125 m<sup>3</sup> / 2600-4400 ft and for **AIR 20** it is 80-130 m<sup>3</sup> / 2800-4600 ft<sup>3</sup>

Typical room size range for one **AIR Base-1** is 30-60 m<sup>3</sup> / 1000-2000 ft<sup>3</sup>  
 Typical room size range for two or three **AIR Base-1's** is 50-100 m<sup>3</sup> / 1600-3500 ft<sup>3</sup>  
 Typical room size range for one **AIR Base-2** is 50-100 m<sup>3</sup> / 1600-4400 ft<sup>3</sup>  
 Typical room size range for two **AIR Base 2's** is 75-125 m<sup>3</sup> / 2600-4400 ft<sup>3</sup>



Technical specifications are subjected to change without notice. Please visit [www.dynaudioacoustics.com](http://www.dynaudioacoustics.com) for the latest info on technical specifications.

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