











DEFINITION SERIES 5.5"/6.5"/8.0"
ACTIVE STUDIO MONITOR SYSTEM



Power

Before use:

Adjust the voltage selector according to the requirements in your country. It is **EXTREMELY IMPORTANT** to pay close attention to this requirement and to choose the closest approximation to your country's supply.

The voltage switch offers two options;

115V or 230V.

VOLTAGE SELECTOR

VOLTAGE SELECTOR

For example, since the UK and China use 240V for normal mains supply, the user would select 230V, which is compatible. Japan and the USA uses 100V and 110V respectively for normal mains supply, so would therefore use the 115V option, which is compatible and the nearest equivalent.

It is <u>extremely</u> important to ensure the appropriate voltage is chosen on the power supply unit for your country. Not to do so may damage or destroy the power supply unit and create a potential fire risk.

Once you have selected the correct voltage for your country on the power supply unit, **please double check it.**

Please read the following steps, before connecting your DT-S Active Studio Monitor System.

- Select and double-check that the voltage selector on the DT-S unit is correct for your country.
- Ensure the sound source is off, then connect the DT-S unit to the sound source with the volume set to zero or the lowest possible level. This will minimize pops and surges.
- 3. Connect the DT-S power cable to the mains supply.
- 4. Turn on your sound source, (with volume at zero)
- 5. Turn on the DT-S active monitors and adjust the volume to the desired level

When turning off:

Always turn off the DT-S active monitors first, and then turn off the sound source.



Caution!

It is always tempting to switch on your new equipment before fully reading the manual. However, <u>Please ensure that you have read the above precautions and set the voltage correctly!</u>

Specifically, please refer to the detailed introduction of specification parameters on page 18



VOLTAGE SELECTOR



RISK OF ELECTRIC SHOCK DO NOT OPEN RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIE

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVIDEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL

ATTENTION: POLIR EVITER LES RISQUES DE CHOC ELECTRIQUE: NE PAS ENLEVER LE COUVERCLE, AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER CONFIER ENTERETIEN AU PERSONNEL QUALIFIE AVIS: POUR EVITER LES RISQUES D'INCENDIE OL D'ELECTROCUTION, N EXPOSEZ PAS CET ARTICLE A LA PLUIE OU A L'HUMIDITE



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the products enclosure, that may be of sufficient magnitude to electric shock to persons. Le symbol clair avec point de fl che I intrieur dun triangle quilat ral est utilis pour alerter Lutilisateur de la pr sence Lint rieur du coffret de vottage dangereux non isol dampleur suff

exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (serviving) instructions in the literature accompanying the appliance. Le point d exclamation I int rieur d un triangle quilat ral est employ pour alerter les utilisateurs de la prsence d instructions importantes pour le fonctionnement et Lentretien (service) dans le livret d instruction accmpagnant l appari I

Important Safety Instructions

- 1. Read this manual thoroughly before using this unit.
- 2. Keep this manual for future reference.
- 3. Take notice of and comply with all warnings included in the user's manual or indicated on the appliance.
- Follow all instructions included in this manual.
- 5. Do not expose this unit to rain or moisture. Avoid having water or other liquids spilled on this
- 6. When cleaning the cabinet or other parts of this appliance, use only a dry or slightly damp soft cloth.
- 7. Do not block any ventilation openings or interfere with the proper ventilation of this unit. Install in accordance with the manufacturer's instructions.
- 8. Do not use or store near any heat sources such as radiators, heat registers, stoves, or other heatproducing appliances.
- 9. Do not interfere with the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. These are designated for your safety. If the provided plug does not fit into your outlet, consult an electrician.
- 10. Protect the power cord from being walked on or otherwise damaged by items placed on or against them. Particular attention should be given to the plugs, receptacles, and the point where the cord exits the appliance.
- 11. To avoid the risk of electrical shock, do not touch any exposed wiring while the unit is in operation.
- 12. Only use attachments/accessories specified by the manufacturer.
- 13. Unplug this unit and all connected electrical equipment during lightning storms or when left unused for a long period of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the appliance has been damaged in any way or fails to operate normally.

WARNING: To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture

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Introduction

Firstly, congratulations on your purchase of the iCON Pro Audio Definition Series 5.5"/6.5"/8.0" Active Studio Monitor System! In these pages, you'll find a detailed description of the features of the Definition Series 5.5"/6.5"/8.0" Active Studio Monitor System, as well as instructions for its setup and use in addition to a full list of specifications.

Please register the product on our website at the link below www.iconproaudio.com/registration

As with most electronic devices, we strongly recommend you retain the original packaging. In the unlikely event that the product is returned for servicing, the original packaging (or reasonable equivalent) is required. With proper care and adequate air circulation, your Definition Series 5.5"/6.5"/8.0" Active Studio Monitor System will operate flawlessly for many years to come.

We trust that this product will provide years of excellent service and in the unlikely event that your product does not perform to the highest standard, every effort wil be made to address the issue. Please make a note of your serial number.

What's in the package?

- DT-5S / DT-6S or DT-8S Active Studio Monitor System
- Power Cable
- "Vasorb™" monitor rubber feet x 4pcs.





Register your iCON Pro Audio product to your User Center

1. Check the serial number of your device

Please go to http://iconproaudio.com/registration or scan the QR code below.



Input your device's serial number and the other information on the screen. Click "Submit".

A message will pop up showing your device information such as model name and its serial number. Click "Register this device to my account". If you see any other message, please contact our after-sales service team.

2. Log in to your personal account page for existing users or sign up for new users

Existing user: Please log into your personal user page by inputting your

user name and password.

New user: Please click "Sign Up" and fill in all the information.

3. Download all useful materials

All your registered devices under your account will show on the page. Each product will be listed along with all its available files such as drivers, firmware, user manuals in different languages and bundled software etc. for download.

Features



The iCON DT-S Active Studio Monitor System provides a smooth and accurate response which makes the system pleasant to listen to. Here are some of its main features:

- Compact high performance active studio monitor
- Active 2-Way monitor system with professional crossover design
- The ideal solution for near-field monitoring in any recording or broadcasting facility
- Designed for use in stereo as well as multichannel setups
- Tuned by top acoustic engineers to fulfill any requirements in real recording studio environments
- iCON's "Vasorb™" monitor rubber feet are included
- Build-in Bi-Amp power module for low and high frequency drivers

DT-5S: 80-watts on LF and 20-watts on HF DT-6S: 120-watts on LF and 20-watts on HF DT-8S: 150-watts on LF and 20-watts on HF

Mid/Woofer

- iCON Custom designed 5.5"/6.5"/8.0" woofer
- Nomex ® reinforced paper cone for crisp, clean and very open reproduction
- Low loss SBR surround with low creep and long time reliability
- Progressive spider to achieve soft clipping and low distortion even under extreme load
- Heavy dual magnet ferrite magnet system with extended height for superb bass reproduction
- Aluminum short circuiting ring and cupper cap in magnet system that practically eliminates motor distortion
- Very rigid die-cast aluminum chassis with very open geometry for optimized airflow to eliminate compression

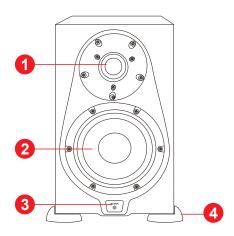
Tweeter

- High-end 1" dome tweeter
- Soft fabric dome and surround with wide-dispersion optimized geometry
- Big surround to reduce distortion
- Low loss ferrofluid-free magnet system for open and detailed sound
- Heavy ferrite under-hung dual magnet system for high sensitivity and low distortion
- Extended and air-flow optimized back cavity to ensure low compression and low resonance frequency
- Rugged die-cast aluminum faceplate with wide-dispersion optimized geometry

Cabinet

- Robust and very rigid design
- Diffraction optimized smooth front baffle design
- Extended front baffle dimensions to eliminate any vibration or sound radiation from the enclosure
- Premium absorbing material for long-life high-performance bass reproduction
- High, Mid and Low range contour control
- High-Pass Filter Flat, 60Hz & 80Hz selectable

Front Panel Layout



1. 1 inch soft fabric dome tweeter

Delivers smooth high-frequency response through a soft fabric dome and a ferrofluid- free magnet system, producing an open and detailed sound.

2. Low frequency driver - woofer

Custom designed 5.5"/6.5"/8.0" Nomex $\$ reinforced paper cone woofer for crisp, clean and very open reproduction.

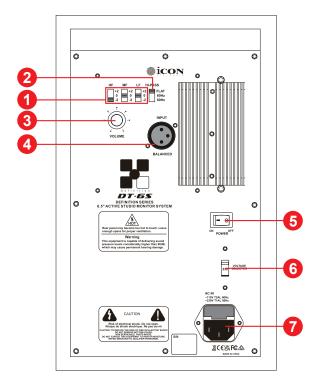
3. Power LED

Orange LED glows when the unit is powered on and ready for operation.

4. "Vasorb™" monitor rubber feet

iCON's large rubber feet hold the enclosure securely in place, even at high sound pressure levels.

Rear Panel Layout



1. Hi, Mid and Low range contour control

Allows adjustment of the three settings (-2dB, 0dB, +2dB) for high, midrange, and low frequencies, enabling customized tuning for various acoustic environments.

2. Hi-Pass filter control

Adjusts the Hi-Pass filter from Flat, 60Hz & 80Hz.

3. Volume control

Controls the output level.

4. XLR balanced input

Connects balanced, line level inputs via a standard XLR cable. Please refer to Page13 for cabling information.

5. Power Switch

Turns the unit on/off.

6. Voltage Selector

110V / 220V input voltage selector.

7. AC inlet

Connects the supplied IEC power cable.

Setting up your DT-S Active Studio Monitor System

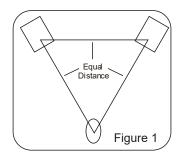
Background on the DT-S Active Studio Monitor system

The DT-S is a near field studio monitor featuring a custom design with 5.5"/6.5"/8.0" Nomex ® reinforced paper cone woofer and a 1" soft fabric dome tweeter with a low-loss ferrofluid-free magnet system. The monitor's crossover has been carefully designed by professional engineers with high quality components, ensuring a linear frequency and phase response. The DT-S enclosure is constructed from MDF. It is designed with a tuned vent port that provides extended low-end response, and with a low turbulence design. The low-frequency driver can move freely with minimal effect on the overall impedance. On the rear of the enclosure there is a XLR input connector. This is connected to the DT-S internal Bi-Amp power module and provides power to the woofer and tweeter. You will also find the pre-amp controls, including volume, used to adjust the overall level of the internal power amplifier, as well as the innovative Hi, Mid-range and Low presence control. These controls allow the mix engineer to contour the Hi, Mid-range and Low response of the monitor from traditional hi-fi sound to flat sound and then through two levels of aggressive Hi, Midrange and Low response. The DT-S has been designed to provide flat, accurate monitoring, and at the same time, provide an adjustable response curve so that the sound of other popular near field monitors can be easily emulated.

Positioning the DT-S monitor

Near field monitoring has become the choice of many engineers in large and small studios because it minimizes the effect of room acoustics. By positioning the reference monitors in the near field (close to the listener), you can greatly reduce the effects of room acoustics.

The most important considerations when evaluating the effects of room acoustics are



the reflective surfaces around the monitoring area. These can include flat tabletops, glass mirrors, framed pictures, large open walls and even the surface of your mixing console. All reflecting sound will eventually reach the listening position, but since it is slightly delayed from the direct source, the result is random cancellation of some frequencies, or comb filtering. If possible, remove any or all reflective surfaces. You may also want to attach some acoustic foam to walls that are close to the monitors.

When positioning the monitors, aim to create what is commonly known as the 'mixing triangle. In this ideal configuration, the space between the left and right monitor is equal to the distance from the listener to each monitor, forming an equilateral triangle (as shown in Figure 1).

Speaker Orientation

The DT-S Active Studio Monitor system can be used in either the vertical or horizontal position. When using the monitors in the horizontal position, be certain to place the left and right side tweeters on the outermost sides. (As shown in Figure 2). This will improve the stereo imaging and bass response by increasing the coupling of the low-end drivers.

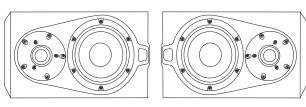


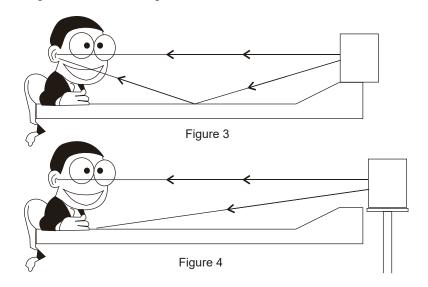
Figure 2

When selecting the height for your monitor system, take care

to minimize reflections from the surface of the mixing console

Reflection

(as shown in Figure 3). These reflections arrive at the listening position with a slight delay from the original sound, resulting in strange cancellations and an overall unpredictable response. Visualize straight lines representing the beams of sound radiating from the monitors and choose a height that reduces the occurrence of reflections that will end up in the prime listening spot (As shown in Figure 4). In most cases, the ideal position is slightly behind and above the mixing console's meter bridge.



SB100X iCON Studio Monitor

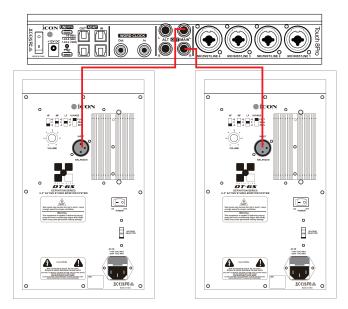
Connecting your DT-S Active Studio Monitor System

DT-S Quick Connections

Note: Before plugging in and tuming on, remember the "last on, first off" rule of power amplifiers (and powered monitors). When powering up your system, be sure that all the wires are connected. Turn your mixer and any other outboard gear on, and then finally turn on your DT-S monitors. When powering down, turn your DT-S monitor system off first and then your mixer and outboard gear.

Connectthe DT-S monitor system through the balanced input on the rear panel, using an XLR balanced input at +4dBu level.

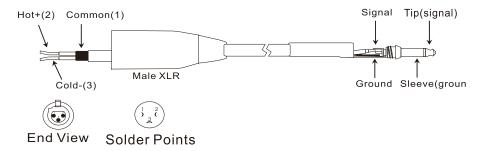
Simply follow the steps illustrated in the diagram below to quickly connect using the control room outputs of a standard recording console or the line outputs of an audio interface (such as iCON's Touch 8 Pro).



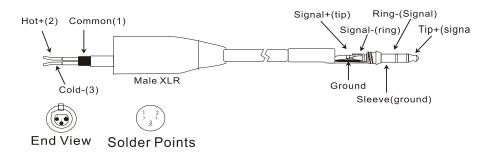
- Lower your mixer's master outputs as far down as possible.
- Connect the mixer's left Control Room output to the left-side DT-S's balanced input and the mixer's right Control Room output to the right-side DT-S's balanced input.
- Set the DT-S's input volume control to the 2 o'clock position.
- Run an audio signal (such as some music from a CD) through your mixer and raise the Control Room level to a comfortable listening level.

Cabling

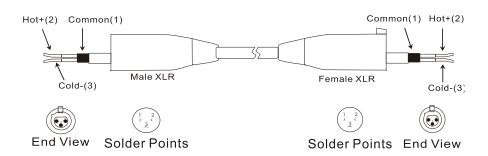
Unbalanced 1/4 inch (6.35m) TS connector - XLR



Balanced 1/4 inch (6.35mm) TRS connector - XLR



Balanced female XLR - male XLR connector



DT-S Control & Connector Panels

The DT-S's rear panel is where you will make your connections for both AC power and audio signal. The rear panel also contains the controls to make adjustments to the overall volume and frequency response curve. The following section details the rear panel controls and connections.

Powering the DT-S Active Studio Monitor System

Connect the unit to an AC power supply since the DT-S is an active studio monitor with an on-board power amplifier. Make sure that the main power switch is set to the off position and connect the supplied IEC power cable to the AC inlet.

Things that go Hum!

When running power cables, be careful not to run the AC power cords or AC extension cords in parallel to your input cable. This will help reduce any AC hum that can be picked up. If you have to cross them then do so at a 90 degree angle for the least amount of induced hum. Using the DT-S's balanced input connector will greatly protect against the induced hum thanks to the common mode rejection provided by the balanced input circuit (the induced hum is phase cancelled).

1. Power switch

Turns the unit on/off.

2. AC inlet

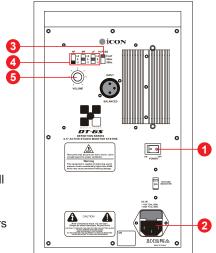
Connect the supplied IEC power cable here.

3. Hi-Pass Filter control

Adjusts the Hi-Pass filter from Flat, 60Hz and 80Hz.

4. LF, MF & HF controls

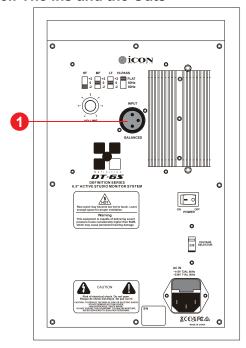
The DT-S's rear panel provides three important controls for adjusting the overall sound of the monitor's bass, midrange and treble. Adjust these controls to your preferred setting. If you take your monitors to other studios you may find these controls extremely useful in adjusting the sound for the new room.



5. Volume control

The volume control is used to adjust the overall output level of the DT-S monitor system. When operating the unit for the first time, start with the volume control turned right down. Slowly raise the volume control to reach a comfortable listening level.

The Rear Panel: The Ins and the Outs



The DT-S is equipped with a balanced input connector providing connection to a variety of audio devices like recording consoles, hard disk recorders, CD players and computer audio interfaces, to name just a few examples.

1. Balanced XLR Audio Input

The DT-S features a female XLR connector that will accept a balanced or unbalanced +4dBm line level signal. If you are using a mixer that has balanced output on the XLR connector, you can make the connection via a standard XLR cable. Please refer to Page 13 (Cabling), for instructions regarding the cabling for an unbalanced connection

Specifications

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	DT-5S	DT-6S	DT-8S
System	Two-way active nearfield monitor	Two-way active nearfield monitor	Two-way active nearfield monitor
Frequency Response (+/-3dB)	45Hz - 25KHz	40Hz - 25kHz	35Hz - 25kHz
Max SPL 1.2 m, pair in listening 113dB peak	113dB peak	116dB peak	120dB peak
room (IEC Short Term)			
Bass Principle	Bass reflex	Bass reflex	Bass reflex
Tuning Frequency	50Hz	45Hz	40Hz
Tweeter	1" wide dispersion soft dome	1" wide dispersion soft dome	1" wide dispersion soft dome
Woofer	5.5" Nomex paper cone	6.5" Nomex paper cone	8" Nomex paper cone
Magnetically shielded/	Shielded and Compensated	Shielded and Compensated	Shielded and Compensated
compensated			
Cross over frequency	2.8kHz	2.5kHz	2.2kHz
Cross over slope	24dB/oct (LP and HP)	24dB/oct (LP and HP)	24dB/oct (LP and HP)
Input level for 100 dB SPL	0dBu RMS @ 0 dB level setting	0dBu RMS @ 0 dB level setting	0dBu RMS @ 0 dB level setting
@ 500-2000 Hz avg @ 1 m	Balanced XLR	Balanced XLR	Balanced XLR
Input connector			
User settings (on the rear panel)			
Power	2pos switch (On/Off)	2pos switch (On/Off)	2pos switch (On/Off)
Input sensitivity	Analog Potentiometer	Analog Potentiometer	Analog Potentiometer
High Pass Control	3pos switch (Flat / 60Hz / 80Hz)	3pos switch (Flat / 60Hz / 80Hz)	3pos switch (Flat / 60Hz / 80Hz)
(remote controlled)			
Bass control	3pos switch (-2dB / 0dB / +2dB)	3pos switch (-2dB / 0dB / +2dB)	3pos switch (-2dB / 0dB / +2dB)
Midrange control	3pos switch (-2dB / 0dB / +2dB)	3pos switch (-2dB / 0dB / +2dB)	3pos switch (-2dB / 0dB / +2dB)
Treble control	3pos switch (-2dB / 0dB / +2dB)	3pos switch (-2dB / 0dB / +2dB)	3pos switch (-2dB / 0dB / +2dB)
Power consumption	Idle: 15W / Max: 120W	Idle: 15W / Max: 180W	Idle: 15W / Max: 230W
Amplifier power	Tweeter: 20W / Woofer: 80W	Tweeter: 20W / Woofer: 120W	Tweeter: 20W / Woofer: 150W
Weight	7.8kg	10.72kg	14.49kg
Dimensions (WxHxD)	285 x 182 x 304 mm	330 x 208 x 334 mm	295 x 255 x 376 mm

Services

If your DT-S needs servicing, please follow these instructions.

Check our online Help Center at http://support.iconproaudio.com, for information, knowledge, and downloads such as:

- 1. FAQ
- 2. Download
- 3. Product Registration
- 4. Video Tutorials

Very often you will find solutions on these pages. If you don't find a solution, create a support ticket at our online Help Center at the link below, and our technical support team will assist you as soon as we can.

Navigate to https://support.iconproaudio.com and then sign in to submit a ticket. Once you have submitted an inquiry ticket, our support team will assist you to resolve the problem with your iCON Pro Audio device as soon as possible.

To send defective products for service:

- 1. Ensure the problem is not related to operation error or external system devices.
- Pack the unit in its original packaging including end card and box. This is very important. If you have lost the packaging, please make sure you have packed the unit properly. iCON is not responsible for any damage that occurs due to non-factory packing.
- 3. Ship to the iCON tech support center or the local return authorization. See our service centers and distributor service points at the link below:

If you are located in the **United States** please visit our help centre - https://support.iconproaudio.com and submit a ticket to the technical support team.

If you are located in **Europe**, please email the support team and wait for a response before sending the product to:

Sound Service GmbH European Headquarters Moriz-Seeler-Straße3 D-12489 Berlin Telephone: +49 (0)30 707 130-0 Fax: +49 (0)30 707 130-189

E-Mail: service@sound-service.eu

If you are located in **Hong Kong** please email the support team and wait for a response before sending the product to:

ASIA OFFICE:

Unit F, 15/F., Fu Cheung Centre, No. 5-7 Wong Chuk Yueng Street, Fotan,

Sha Tin, N.T., Hong Kong. Tel: (852) 2398 2286

Fax: (852) 2789 3947

Email: info.asia@icon-global.com

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