

iCON

O

Series







O₃
Studio Condenser Microphone

Owner's Manual



EN16549

 <div style="background-color: black; color: white; padding: 5px; margin: 5px 0;">CAUTION</div> <p style="font-size: small;">RISK OF ELECTRIC SHOCK DO NOT OPEN RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR</p> <p style="font-size: x-small;">CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL</p> <p style="font-size: x-small;">ATTENTION: POUR EVITER LES RISQUES DE CHOC ELECTRIQUE: NE PAS ENLEVER LE COUVERCLE, AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER. CONFIER L'ENTRETIEN AU PERSONNEL QUALIFIE. AVIS: POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE A LA PLUIE OU A L'HUMIDITE</p>	   <p style="font-size: x-small;">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 product's enclosure, that may be of sufficient magnitude to electric shock to persons. Le symbol clair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de voltage dangereux non isolé d'ampleur suffisante.</p> <p style="font-size: x-small;">The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance. Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.</p>
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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.
4. 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 unit.
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 heat-producing 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 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

Thank you for purchasing the ICON ProAudio O3 condenser microphone. We sincerely trust this product will provide years of satisfactory service, but if anything is not to your complete satisfaction, we will endeavor to make things right.

O₃ In these pages, you'll find a detailed description of the features of the O3 condenser microphone, step-by-step instructions for their setup and use, and full specifications.

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

Please follow the step by step procedures, Start by inputting the device's serial number as well as your personal information, etc, By registering your product online, you will be entitled to service and after-sales support at our Help Center by visiting our website at **www.iconproaudio.com**. Also, all the registered products under your account will be listed on your personal product page where you will find updated information such as firmware/driver upgrades, software bundles, user manual downloads, etc. for your device.

As with most electronic devices, we strongly recommend you retain the original packaging. In the unlikely event the product must be returned for servicing, the original packaging (or reasonable equivalent) is required.

With proper care, your O3 condenser microphone will operate without any trouble for many years.

What's in the package?

- O3 Condenser Microphone
- Users' Manual
- Carry Case

Register your ICON ProAudio product to your personal account

1. Check 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" or if you see any other message, please contact our after-sales service team

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

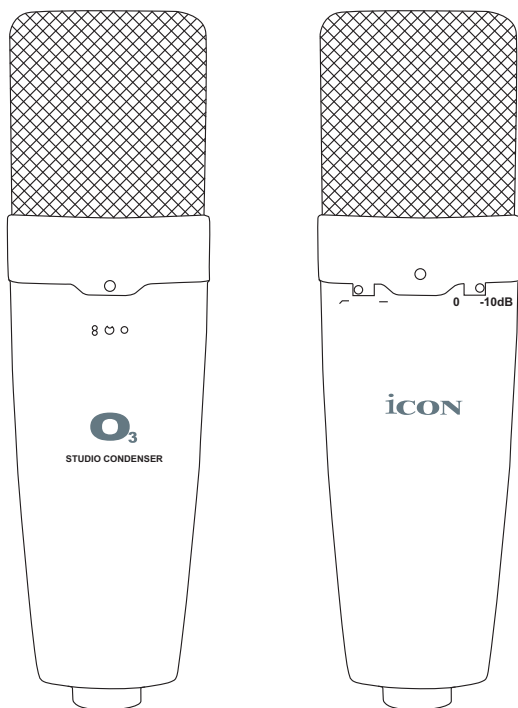
Existing user: Please log into your personal user page by inputting your user name and password.

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 manual in different languages and bundled software etc. for download. Please make sure you have download the necessary files such as driver before you begin device installation.

Features



O₃

- Dual golden painted 19mm capsule
- Cardioids, omni and figure 8 patterns
- True 20Hz to 20KHz frequency response with pronounced presence boost
- Switch able high-pass filter and 10dB pad
- Low cut
- Very low self-noise
- Exceptional low-frequency reproduction
- High output level
- High input SPL capability
- Extremely uniform polar response
- Classic character and rugged construction
- Optional swivel mount

Operating your O3

Powering the O3

O3

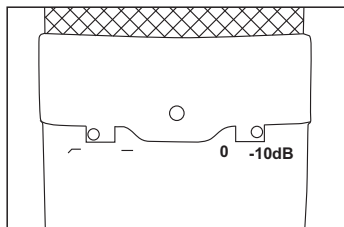
The O3 is a condenser microphone and therefore needs to be operated by connecting a phantom power supply. Phantom power is standard on most quality mixers, outboard mic-pres and hard disk recorders. If necessary an external phantom supply can also be used. The O3 receives the phantom power directly from a mic cable when connected to a mixer or other microphone input that includes a phantom supply. The power is actually sent OUT of the microphone INPUT, riding silently along with the audio signal. Most mixers have a switch to engage the phantom power so be sure to check that the phantom power is on. The O3 features an orange LED, which will illuminate when phantom power is present.

Setting up the signal level

When connecting the O3 to a mixer or recorder input, be sure that the input is of microphone level. Also be sure that the phantom power is engaged as explained at the previous section "Powering the O3". Most mixers and recorders of reasonable quality will offer a microphone input with mic trim (usually called Trim or Gain) control. The purpose of the mic trim control is to optimize the amount of good signal to any noise associated with the mixers electronics. A good mic pre with trim also will have a PEAK or CLIP LED. To set a good level on the mic, set the O3 up in front of the desired sound source and slowly raise the mic trim control until you see the PEAK LED light up. Then, turn the mix trim control down until the LED does not light any more. On most mixers, the ideal setting is that the trim control is turned up as much as possible without lighting the PEAK LED. If you try turning the Gain control all the way down, and the PEAK light is still lighting, try using the O3 PAD as explained in the following section.

1. Using the PAD Switch

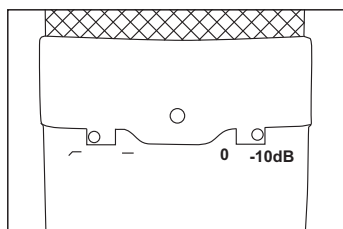
The O3 includes a PAD switch, which you can use to lower the input sensitivity of the microphone. When the PAD switch is set at the 0dB position, the PAD is bypassed and there is no effect on the signal. When the PAD switch is set to -10dB position, the microphone's input sensitivity will be lowered by 10dB. You can use the PAD when you are miking loud sound sources with a high SPL.



Operating your O3

2. Using the Hi-Pass Filter

The O3 offers a user selectable hi-pass, or low-cut filter which you can use to eliminate any unwanted low frequency reproduction. When the Hi-Pass filter is set to the "Flat" (indicated by the straight - line) position, there is no effect on the signal. When the Hi-Pass filter is set to the "Roll-Off" position (indicated with the angled line), a 12dB per octave low-cut at 100Hz is applied to the signal. This can be extremely useful for removing low frequency stage rumble, wind noise during outdoor use and filtering out lows from drums when used as overhead cymbal microphone on a drum kit.



Understanding Polar Patterns

The most important characteristic of any microphone is its directionality or "pickup pattern". The O3 versatile dual capsule design is capable of producing three useful pickup patterns: Omni, Cardioid and Figure 8. It is easy for you to select the pick up pattern using the O3's pattern selection switch located on the rear of the microphone. When choosing a pattern, you should be aware of the phenomenon known as the "proximity effect". Simply put, proximity effect is the change in frequency response as the microphone position is changed relative to the sound source. Any microphone exhibits its best frequency response when pointed directly at the sound source (on-axis). Depending on the pickup pattern, the low frequency response will increase, sometimes greatly, when positioned less than 12 inches away from the sound source (off-axis). Understanding and knowing how to use the proximity effect can be a tremendous help in getting just sound you looking for . The following sections detail the three available pickup patterns.

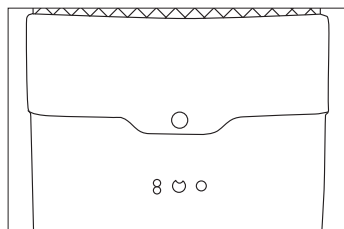
Operating your O3

3. Cardioid

O3

While Omni and Bi-directional microphones are very useful for a variety of specialty applications, the majority of the miking situations in recording and live sound require uni-directional or Cardioid microphones. The O3 pickup pattern is Super-cardioid which offers even more side-to-side rejection.

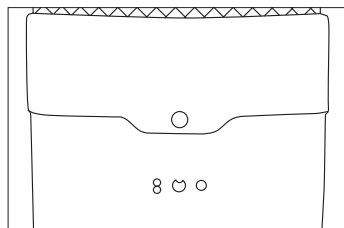
The uni-directional nature allows for better separation of instruments in the studio and more control over feedback in live sound reinforcement. To select the Cardioid pickup pattern, set the pattern selection switch to the center, Cardioid position indicated by the "heart shaped" icon. When positioned correctly, the cardioid pickup pattern allows you to pick up more of the sound you want and less of the sound you don't want.



4. Omni

Omni, or omni-directional microphones pick up sound from all directions. To select the Omni pickup pattern, set the O3's pickup pattern selection switch to the right, "O" position. You can use the omni pick up pattern if you want to capture the ambient sound and natural reverb in a room where an instrument or voice is being recorded. The Omni

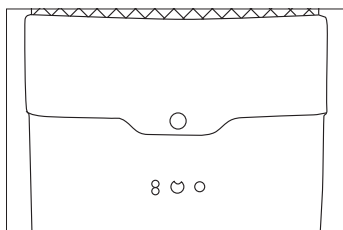
mode is also great for recording ensemble performances from groups of vocals, brass, woodwind and other instruments with the artists facing each other in a circle around the microphone. As an added benefit, the omni pattern is the least susceptible to the proximity effect. This can be extremely useful when recording artists who have a tendency to move their instrument, including their voice, around the microphone while performing. In these situations, using a cardioid pattern can result in the frequency response changing tremendously with just a few inches of movement resulting in recorded track with the lows moving up and down in volume. Using the omni pick up pattern can help control these tricky miking situations allowing you to capture the best performance without inhibiting the talent by forcing them to try to stay in a fixed position.



Operating your O3

5. Figure 8

Figure 8, or bi-directional mics pick up the sound directly in front and back of the microphone while rejecting the sound on the left and right sides. To select the Figure 8 pick-up pattern set the O3 pickup pattern selection switch to the left "8" position. In this mode it's almost like having two identical microphones facing back-to-back to each other. This can be ideal setting for capturing two artists singing a duet or laying down a background vocal track. Having the two artists face each other while performing can help capture the emotions that may otherwise be missed if two microphones are used. You can also create some interesting slap back echo effects by positioning the O3 in Figure 8 pattern between a recorded instrument and a particular wall in the studio. The rear capsule will pick up the reflection of the sound off the wall, and by changing the distance of the microphone from the wall you can actually change the delay time of the echo.



Microphone Placement

In order to maximize the sound quality, you must pay careful attention to the placement of your O3 and how it is positioned for the instrument or vocalist that you are miking. All microphones, especially uni-directional or cardioid microphones, exhibit a phenomenon known as the "proximity effect". Very simply put, proximity effect is a resulting change in the frequency response of a microphone based on the position of the mic capsule relative to the sound source. Specifically, when you point a cardioid mic directly at the sound source (on-axis) you will get the best frequency response, however, when you start pointing the microphone slightly away (off axis) you will notice the low frequency dropping off and the microphone will start to sound thinner.

For most vocal applications you'll want to position the microphone directly in front of the artist. The same may be true for miking instruments. However, you can make some pretty amazing equalization adjustments by slightly changing the angle of the capsule to the sound source. This can be a very useful technique in capturing the optimum sound of drum set, acoustic guitar, piano or other instruments in a live room or sound stage. Experimentation and experience are the best teachers in getting good sounds, so plug in!

P-Popping

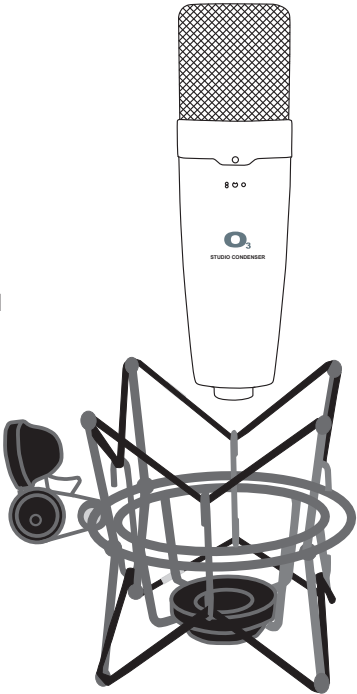
P-Popping is that annoying pop that you can get when the microphone diaphragm gets a blast of air from a vocalist pronouncing words with the letter "P" included. There are a few ways to deal with the problem including using an external pop filter. Some famous engineers have relied on an old nylon stocking over a bent clothes hanger, which actually works very well. For a cleaner solution, try ICON PF-01 pop filter. You can also try placing the microphone slightly off axis (on a slight angle) from the vocalist. This can often solve the problem without using an external pop filter.

Operating your O3

Mounting the O3

O3

1. Place the microphone carefully into the SM-01 shock mount bracket and position the microphone straight into the threaded collar.
2. Tighten the SM-01 threaded collar nearly all the way.



Specification

Acoustical Element	Dual Back condenser capsule
Directional pattern	Omni directional, cardioid, figure-8
Frequency range	40Hz-18KHz
Sensitivity	Omni: -36dBV/Pa Cardioid: -33dBV/Pa Figure-8: -36dBV/Pa
Rated Impedance	200 Ohms
Min Load Impedance	1000 Ohms
SPL	Omni: 139dB Cardioid: 136dB Figure-8: 139dB
S/N Ratio	78dB
Power Supply Voltage	36-52V
Weight	0.6kg
Dimensions	64mm(dia) x 210mm(L)

Services

If your O2 needs servicing, follow these instructions.

Check our online Help Center at <http://support.iconproaudio.com/hc/en-us>, for information, knowledge, and downloads such as:

1. FAQ
2. Download
3. Learn More
4. Forum

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 <http://support.iconproaudio.com/hc/en-us> and then sign in to submit a ticket.

As soon as you have submitted an inquiry ticket, our support team will assist you to resolve the problem with your ICON ProAudio 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.
2. Keep this owner's manual. We don't need it to repair the unit.
3. 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.
4. 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 US
Send the product to:
North America
Mixware, LLC –U.S. Distributor
11070 Fleetwood Street –Unit F.
Sun Valley, CA 91352; USA
Tel.: (818) 578 4030
Contact: www.mixware.net/help

If you are located in Hong Kong
Send 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

If you are located in Europe
Send the product to:
Sound Service
GmbH European
Headquarter Moriz-Seeler-Straße
3D-12489 Berlin
Telephone: +49 (0)30 707 130-0
Fax: +49 (0)30 707 130-189
E-Mail: info@sound-service.eu

5. For additional update information please visit our website at:
www.iconproaudio.com



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