OWNER'S MANUAL

PRO-D7 KIT

7 PIECE DRUM MIC KIT w/METAL BASS, SNARE,
& OVERHEAD CONDENSER MICROPHONES + CLIPS

Thank you for purchasing this Rockville PRO-D7 7 Piece Drum Mic Kit. Please read this owner's manual carefully for proper use of your PRO-D7 7 Piece Drum Kit. Should you need technical assistance please call our technical help line at 1-646-758-0144, Monday through Friday, 9am to 5pm EST.

Includes

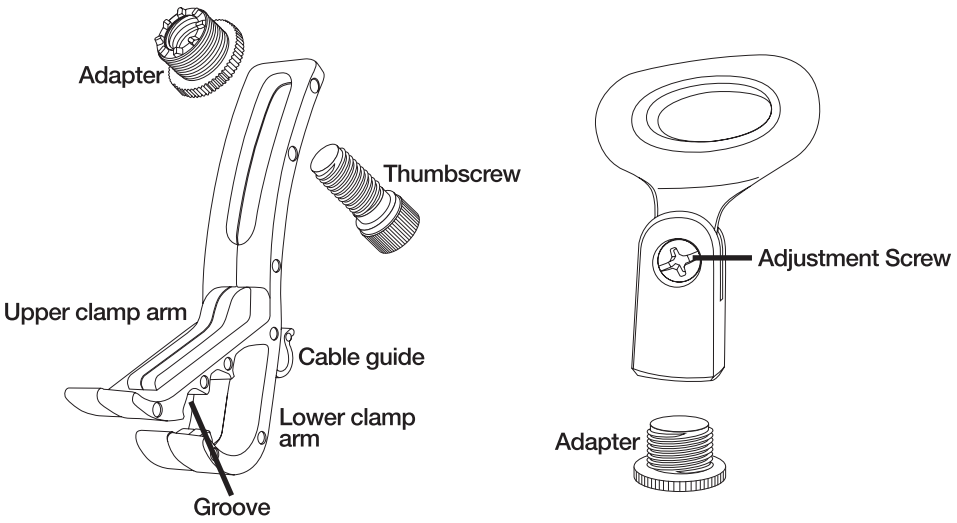
- (1) Bass drum mic
- (4) Snare drum mics
- (2) Overhead condenser mics
- (2) Mic clips
- (5) Mic clamps
- (1) Aluminum travel/protective case with foam
- Manual
- Warranty card

IMPORTANT SAFETY INSTRUCTIONS

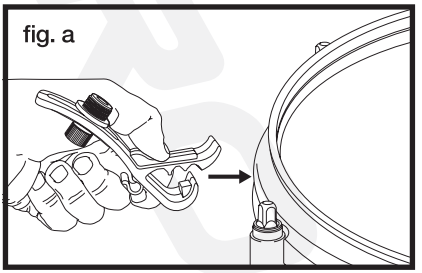
- Never drop the microphones or subject them to extreme shock.
- Always store the mics in their padded case to protect them during transport.
- Avoid exposing the microphones to extremely high temperatures and humidity.
- Avoid leaving the microphones in direct sunlight for long periods of time.
- Avoid getting the microphones wet.
- If the microphones are used in a high-moisture application, such as an outdoor performance, wipe off the microphones with a dry cloth and permit them to air dry. Do not store the mics until all moisture has evaporated.

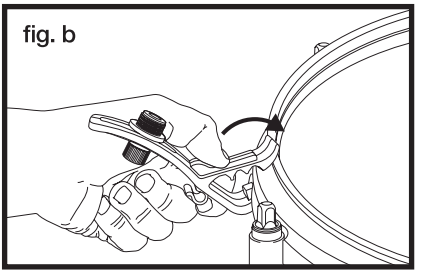
Set-Up

Clamp and Mic Clip Description:

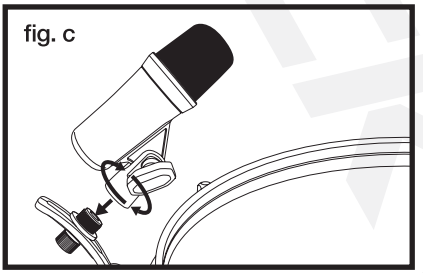


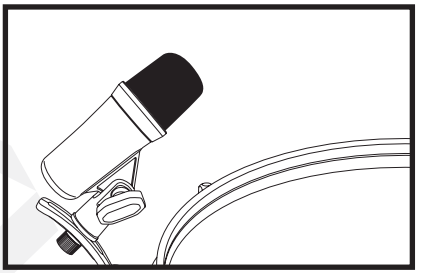
Attaching the Clamps:
Use the microphone clamps (included) to attach the mics to the drums. Place the lower portion of the clamp under the rim of the drum (fig. a). After securing the lower portion of the clamp under the rim, lift the clamp until the groove in the upper portion clicks onto the top edge of the rim (fig. b).



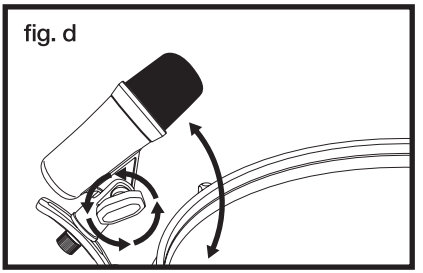


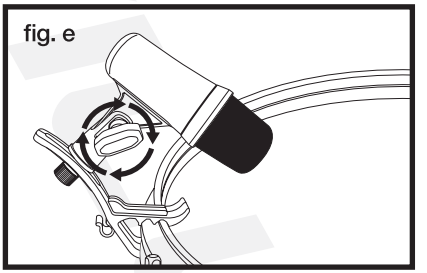
Connecting the Microphones:
1. Attach the mic to the clamp by screwing the adjustable base onto the adapter (fig. c).



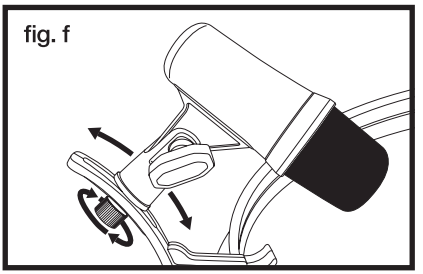


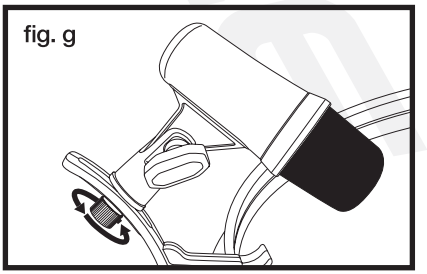
2. To adjust the angle of the mic, loosen the knob and tilt the mic to the desired position (fig. d). To secure the mic in the current position, turn the knob clockwise to tighten it (fig. e).





3. To adjust the position of the mic, loosen the thumbscrew and slide the mic to the desired position (fig. f). Once the mic is in position, tighten the thumbscrew (fig. g). Do not over-tighten.

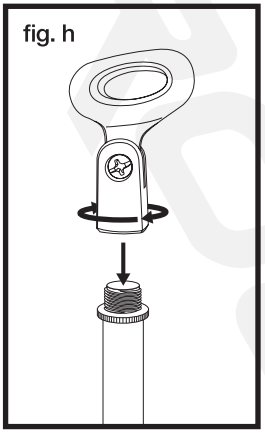


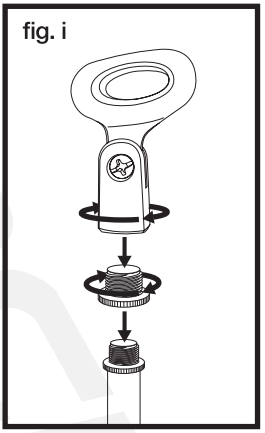


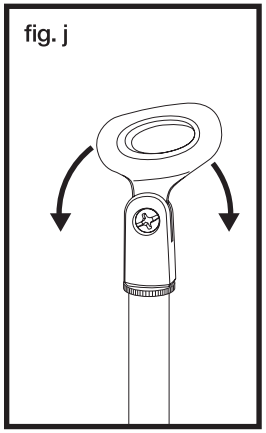
Set-Up (continued)

Attaching the Overhead Microphone Clips:

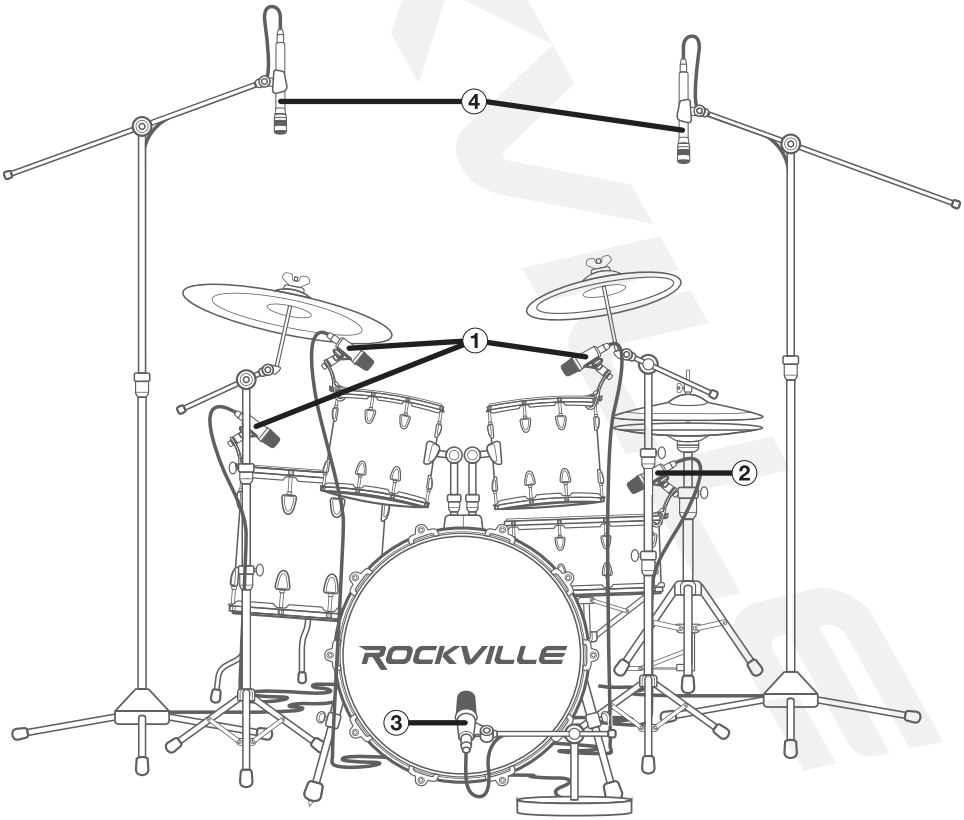
The microphones clips can be attached to any standard mic stand with a ⅝″ screw mount (fig. h) or ¼″ screw mount using the included adapter (fig. i). To adjust the clip's angle, simply move it to the desired position (fig. j).







Positioning the Mics:



The microphones included in the PRO-D7 kit have cardioid pick up patterns so that they pick up sound directly in front of the microphones and reject the sound behind them. This means that in order to avoid picking up ambient sound, the microphones should be set so that they are facing away from cymbals or other drums.

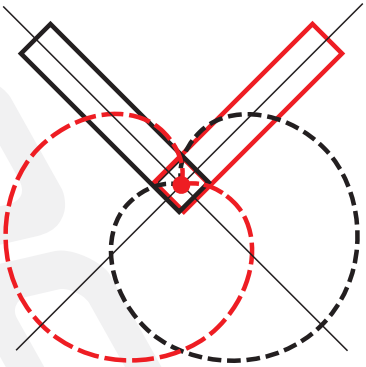
Microphones, but especially uni-directional or cardioid microphones, exhibit the “proximity effect.” It is defined as a change in the microphone’s frequency response based on it’s position relative to the sound source. Any adjustments of the microphone’s position or angle can make a difference in the sound quality. When you point a cardioid mic directly at the sound source (also known as “on axis”) you will get the best frequency response. Pointing the microphone slightly away or off axis, will cause the low frequency response to drop off and it will sound thinner. Please note that directional microphones progressively boost bass frequencies as the microphone is placed in closer proximity to the source. This can result in a warmer and more “boomy” sound.

1. Snare Drums:
   - Place the microphone near the rim, approximately 1 to 4 inches above the drum.
   - To capture more “stick attack”, aim the microphones towards the middle of the head. Aim the mics closer to the edge of the head to capture more overtones.
   - Pointing the rear side of the microphone towards the hi-hat will help to reduce cymbal noise in the snare drum signal.
2. Tom Drums:
   - Place microphones near the rim, approximately 1 to 4 inches above the drums.
   - For a deeper sound, the mic should be pointed towards the middle of the head. Aim the mics closer to the edge of the head to capture more overtones.
3. Kick Drums:
   - The microphone should be placed in front of the kick drum.
   - If there is a hole in the resonant head, place the microphone inside the hole for better isolation.
   - For increased attack, remove the resonant head and place the microphone closer to the beater head.
   - Placing a pillow inside the kick drum will reduce the sustain and overtones for a more focused attack.
4. Overhead Condenser Mics:
   - On a mixer or in recording software, pan one microphone to the left and the other to the right to create a stereo image.
   - To achieve wider sound, move the mics further apart.
   - There are three recommended overhead mic placement methods:

     Spaced Pair: This the most common method. One mic goes above the left side of the kit pointing down, the other goes on the right. Each mic captures the side of the kit that they’re on. This gives you a nice wide image of the kit, however it can cause some phase issues, and some weird panning side effects. An easy way to keep the mics in phase would be to have them at the same height and same distance from either the bass drum or the snare drum. You can use a tape measure (or even a mic cable) and, starting at the center of the snare drum or bass drum, measure to the capsule of the first microphone. Now take the measurement and use it to set-up the opposite microphone. Ensuring both microphones are equidistant from the center of the snare drum in distance and height will help avoid phase issues.

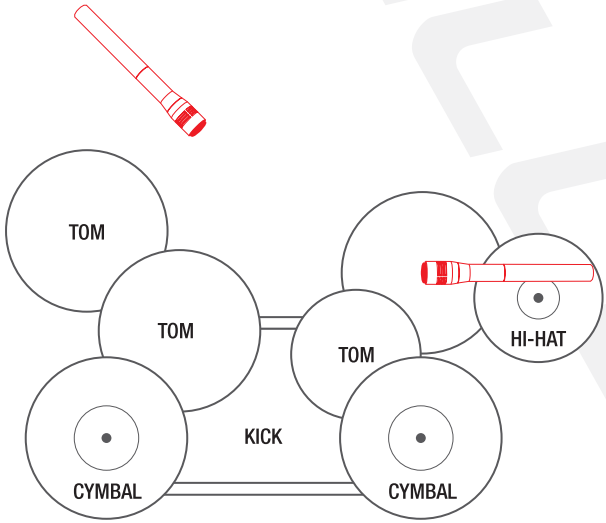
Set-Up (continued)

XY/Coincident Pair: Use two cardioid condenser mics arranged at a 90º angle with the elements as close together as possible. This coincident arrangement offers a focused, phase-coherent stereo image. Put the mics right next to each over the kit, with one mic pointing towards one side of the kit and one pointing towards the other. If done properly, they should form a “V” shape.

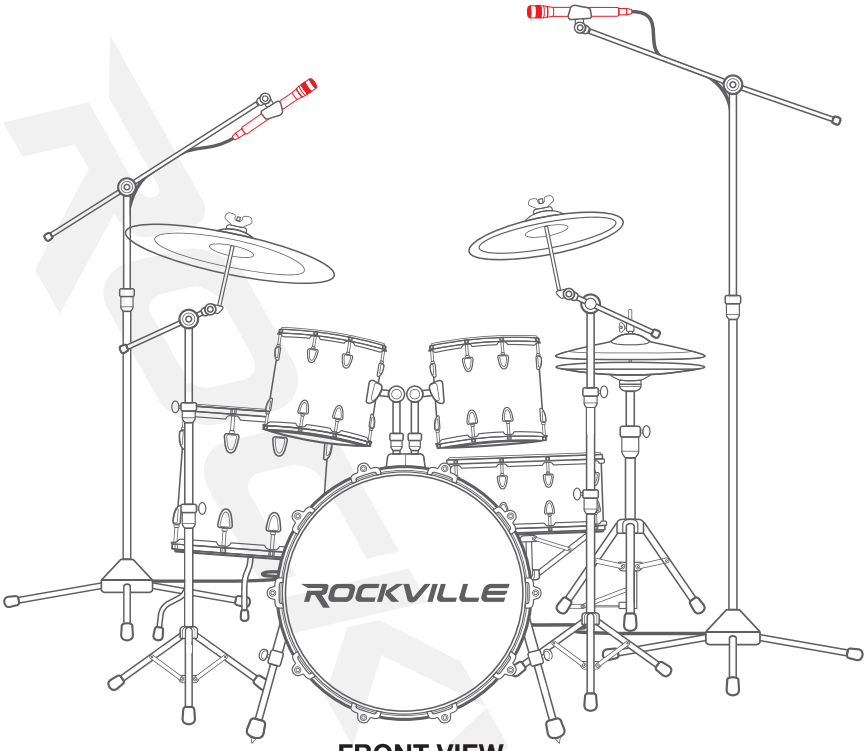


The big advantage of this method is that the phase correlation between the two mics is nominal. If the two mics are summed to mono, such as through a phone speaker, there is little signal loss due to destructive interference. However, this configuration does not provide a very wide stereo image

The Recorderman Technique: One microphone is suspended 32˝ above the center of the snare drum, pointing straight down. The other is positioned near the drummer’s right shoulder, pointing directly at the snare drum from 32˝ away. This technique requires that the kick drum be equidistant from both microphones. This can be checked by taping the two ends of a length of string to the center of the snare and kick drums respectively. Pinch the string together at the point where it touches the mic above the snare, so that both legs of the string are taut. Move that point of the string in an arc toward the drummer’s right shoulder to find the perfect location for the second microphone -- at a point where it, too, is 32˝ from the center of the snare, and equally distant from the kick. The two tracks are panned L and R, although not necessarily 100%.



TOP VIEW



FRONT VIEW

Please Note: Extreme panning of Recorderman overhead tracks can leave a hole in the middle of the stereo field.

Wiring the Mics

These microphones feature a 3-pin XLR connector to connect to any mixer, audio-interface, or mic pre-amp. Using a standard XLR cable (not included), connect the female end to the microphone's connector and the male end to appropriate port on the sound processing device. Some devices use ¼″ inputs, in this instance you will require a female XLR to ¼″ cable.

The overhead condenser microphones require 48 volt phantom power to operate. Although 48 volt is preferred, it can operate with lower voltages with decreased headroom. Phantom power is provided by the sound processing device to which the microphone is connected or from a phantom power supply. It requires the use of a balanced microphone cable: female XLR to male XLR or female XLR to ¼″ TRS. Most sound processing devices feature a switch or button to activate phantom power. See your device's owner's manual for additional information.

Please Note: This applies to the condenser microphones only. Supplying phantom power to the dynamic microphones will not cause damage.

WARNING: Do not connect or disconnect the microphone from the XLR cable while phantom power is engaged. Doing so can cause permanent damage to the microphone.

Set-Up (continued)

Room Acoustics:
An appropriate recording space is the key to achieving great results when recording drums. These mics will pick up the sound of the recording space to a degree, so its a good idea to ensure you have acoustic room treatment on the walls and ceiling above the drums to avoid room reflections and minimize phasing issues.

Features and Specifications

Bass Drum Microphone:

- Steel grill
- Aluminum body
- Zinc alloy hardware
- Fits any mic stands
- Anti-wind filter inside the grill
- **Element:** Dynamic
- **Polar Pattern:** Cardioid
- Frequency response is engineered to be perfect for kick drums
- Studio quality performance make these perfect for recording or live shows
- Sounds great even at high SPL levels
- Rejection of unwanted noises
- XLR Output
- Integrated flexible mounting hardware
- Large diaphragm delivers accurate low frequencies
- **Frequency Response:** 30Hz – 12KHz
- **Sensitivity:** -58dB ±5dB (0dB = 1V/Pa at 1KHz)
- **Output Impedance:** 600Ω ±30% (at 1kHz)
- **Microphone Length:** 4.72 inches
- **Microphone Max. Diameter:** 2.01 inches
- **Microphone Weight:** 0.77 lbs

Tom/Snare Drum Microphone:

- Steel grill
- Aluminum body
- Zinc alloy hardware
- Fits any mic stands
- Anti-wind filter inside the grill
- **Element:** Dynamic
- **Polar Pattern:** Cardioid
- Large diaphragm delivers accurate frequency response
- Frequency response is engineered to be perfect for tom-toms and snare drums
- Studio quality performance make these perfect for recording or live shows
- Sounds great even at high SPL levels
- Rejection of unwanted noises

- XLR Output
- Integrated flexible mounting hardware
- **Frequency Response:** 60Hz – 13KHz
- **Sensitivity:** -54dB ±3dB (0dB = 1V/Pa at 1KHz)
- **Output Impedance:** 600Ω ±30% (at 1kHz)
- **Microphone Length:** 4.53 inches
- **Microphone Max. Diameter:** 1.61 inches
- **Microphone Weight:** 0.44 lbs

Overhead Condenser Microphone:

- Steel grill
- Aluminum body
- Anti-wind filter inside the grill
- Element: condenser
- 16 MM large diameter cartridge has amazing sound
- Polar Pattern: Cardioid
- Large diaphragm delivers accurate frequency response
- Frequency response is extremely flat and engineered to be perfect for cymbals and other drums
- Studio quality performance make these perfect for recording or live shows
- Sounds great even at high SPL levels
- Rejection of unwanted noises
- XLR Output
- Low mass diaphragm
- **Frequency Response:** 70Hz – 20KHz
- **Sensitivity:** 13mV/Pa
- **Output Impedance:** 2000Ω (at 1KHz)
- **Max SPL:** 127dB (at 1KHz = 1% T.H.D)
- **S/N Ratio:** 96dB
- **Power Supply:** Phantom 48V or DC1.5V (2x AA Batteries)
- **Microphone Length:** 8.46 inches
- **Microphone Max. Diameter:** 1.06 inches
- **Microphone Weight:** 0.22 lbs

Troubleshooting

PROBLEM	SOLUTION
No sound or faint sound	1. Verify all sound system connections. 2. Check the volume levels of your sound processing device. 3. Make sure the mics are not positioned too far from the sound source. 4. Make sure condenser mics are receiving 48V phantom power.
Rattling or cracking sounds	This may be caused by moisture in the microphone. If moisture is found inside the microphone, allow it to dry at room temperature. Avoid using the mic in hot, humid environments and avoid contact with liquids.
Feedback	1. Move the microphones away from nearby speakers. 2. Place the microphones behind speakers. 3. Change the microphones' orientation so that they are not pointed directly at any speaker.
Inconsistent mic signal	1. Make sure the mics are properly connected. 2. Make sure the cables are not damaged. 3. Check the requirements of the sound processing device and make sure you are using the appropriate cable.
Distortion or noise	1. Make sure you are using windscreens (included). 2. Point the mic away from cymbals, other drums, and nearby speakers.

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