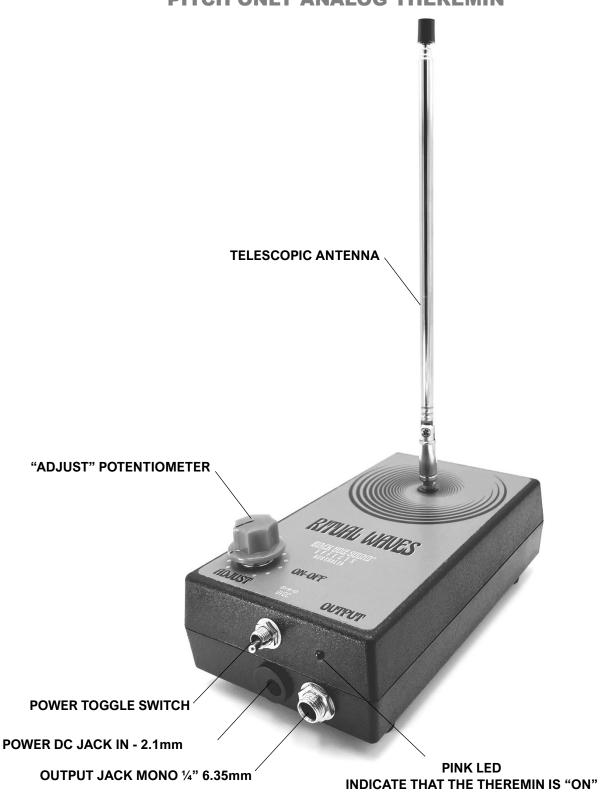


Owner's Manual

Ritual Waves

PITCH ONLY ANALOG THEREMIN



REVISION: 2.2 © 2025 Black Hole Sound Effects | Australia



Thank you for your purchase of the Ritual Waves Theremin!

This manual will guide you through the setup, tuning, and operation of your theremin, ensuring you get the best possible performance from your new instrument. Please read through the instructions carefully to familiarize yourself with its features and optimal usage.

Enjoy your experimental journey with the Ritual Waves Theremin!

Adjusting the Sensitivity of the Ritual Waves Theremin

Before your performance begins, it is essential to properly tune the theremin. Follow the steps below to ensure optimal setup:

1. Power Supply

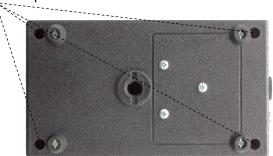
Ensure that the theremin is equipped with a standard 9V battery, or connected to a standard guitar pedal 9VDC AC adaptor

We recommend that you keep the battery installed in the unit even though you'll be powering it with the AC adaptor. That way, you'll be able to continue a performance even if the cord of the AC adaptor gets accidentally disconnected from the theremin.

If the power supply unit is connected while power is on, the power is drawn from the AC adaptor.

Battery installation:

- Unscrew the four Philips screws accessible from the bottom



- Install the battery in its dedicated holder





2. Placement

Position the theremin on a wood table or screw it to a microphone stand (using adapter 3/8" present under), ensuring it is elevated at 1 meter off the floor. It is important to avoid placing any objects or individuals within approximately 1 meter of the antenna pole, as these could interfere with the antenna's function. Your arm should be the only object interacting with the antenna during performance.

3. Connecting to Amplifier

Connect the theremin to your amplifier, ensuring that the antenna is fully extended. Confirm that the theremin is switched off.

Additionally, you may choose to connect the theremin to an effects unit, such as a delay or reverb, before connecting it to the amplifier. This will allow you to modify the theremin's sound in real time and achieve more dynamic and expressive tonal variations during your performance. Ensure all connections are secure before powering on the system.

4. Amp Settings

Power on your amplifier and reduce its volume to a low level to prevent loud, uncomfortable sounds when the theremin is activated. While the Ritual Waves Theremin lacks a built-in volume control, it can produce very high volumes, so it is critical to adjust the amp volume first. You can fine-tune the volume later to suit your preferences.

5. Powering On the Theremin

Turn on the theremin using the toggle switch located at the front. You may hear initial sounds; if not, turn the "Adjust" knob. If no sound is emitted, set the knob to the middle position and turn the knob on the left side. Once sound is produced, set the knob to produce a low pitch.

6. Adjusting the Active Zone

The next step involves defining the "active zone" around the antenna, which is the space where the theremin responds to your hand movements. Ensure the zone is neither too narrow nor too wide. A zone that is too narrow will restrict movement, while a zone that is too wide will result in the sound fading when you move your hand away from the antenna.

To adjust, step away from the theremin and turn the "Adjust" knob slightly until the pitch drops (just before it fades completely). This is your starting point for fine-tuning. The ideal active zone should extend approximately 40–80 cm around the pole. Outside of this zone, the theremin should remain silent.

To fine-tune the active zone, make incremental adjustments by turning the knob slightly, moving your hand away from the pole, and checking the active zone. Small adjustments can lead to significant changes, so exercise patience during this process.

Trick: You can decrease the antenna length by one or two segments, and readjust the Active Zone as described above, to get more range if you wish!

7. Final Volume Adjustment

Once the active zone is set, adjust the amplifier volume as needed.

Important Notes:

- **Pitch Adjustment**: When moving your arm towards the pole, the pitch should increase. If it decreases, gently turn the knob to adjust the tuning as described in step 6.
- Delay Effect: We highly recommend using a delay effect between the theremin and the amplifier. A
 well-balanced delay effect is key to achieving the theremin's unique sound. Any digital or tape delay
 will suffice. While performing, use one hand to control the theremin's pitch and the other hand to
 adjust the delay settings, creating a dynamic and psychedelic sound.



- **Amplifier Use**: Any sort of musical instruments amplifiers can be used with the theremin: Guitar, Keyboard, Bass amplifier. Adjusting amplifier tone controls help to shape the desired sound.
- **Pole Position**: Ensure the antenna pole remains fully extended during performance. Folding the pole back can affect tuning. If you need to adjust the pole, handle it carefully with both hands.

SPECIFICATIONS

Enclosure dimensions (L/W/H): 152mm x 83m x 62mm (5.98" x 3.27" x 2.44") Note: *Dimensions include feet, not the antenna.*

Antenna dimensions:

Length (L): 187mm (7.36") to 780mm (30.71") when fully deployed Diameter (D): 6mm (0.23") Bottom part: 8.2mm (0.31")

Weight:

180g (0.39 lbs) without battery, approx. 225g (0.49 lbs) with battery.

Current draw: 4.7 mA

Output impedance: 14 KΩ

OUTPUT

The 6.35mm (½") mono jack socket serves as the output for the instrument. Connect the output to an amplifier (guitar or synthesizer) using a high-quality shielded cable. The instrument can also be connected directly to sound effects like delay or reverb.

ADJUST

This potentiometer adjusts the pitch when the telescopic antenna is fully extended. Reducing the antenna length by one or two segments will modify the range, and the same potentiometer can increase it.

"ON-OFF" switch

Use this switch to toggle between ON and OFF.

POWER

Power is switched ON when the output jack is inserted <u>and</u> the toggle switch is in the **ON** position.

Required power source: 9V DC, using a standard alkaline battery or AC adapter with these specifications:

Voltage input: 9V DC, regulated that indicates the symbol below.

Current minimum: 10mA



Centre negative polarity symbol as found on DC output power supply unit.

DC Jack connector: 2.1mm

Note:

Most standard 9VDC Boss™/Ibanez™/ etc guitar/bass power supply pedals type works.



LIMITED WARRANTY

Black Hole Sound Effects® Australia will guarantee the theremin for 36 months from the date of original purchase against defects in workmanship and materials.

If a defect arises, the theremin will be repaired without charge if delivered FREIGHT PREPAID to the following address:

BHS-FX / Support Dept PO Box 217 – MORPHETT VALE SA 5162 - AUSTRALIA

It will be returned to our freight when repair is complete.

Claim must be accompanied by PROOF OF PURCHASE in the form of a legible copy of the original sales slip showing where you bought it and when.

WE WILL NOT WARRANT THE THEREMIN IF:

- Alterations, modifications, or add-ons have been made.
- Unauthorized repairs have been performed or attempted.
- For damage caused by mistreatment or accident.

Tracked package recommended for shipping theremin to us.