

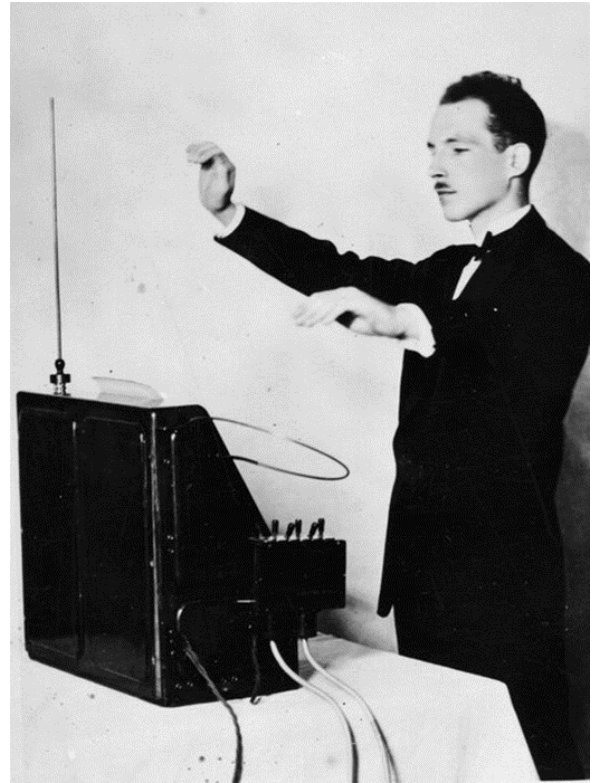
Theremini Kit Contents

- (3) Thereminis
- (3) Pitch antennae (stored in the bottom of the Theremini)
- (3) AC Adapters
- (3) Power cables
- (3) Instruction manuals
- (3) Quick Start guides



What is a Theremin?

In 1919, a young Russian scientist was working on using radio waves to create a device that could measure the density of different gasses in the air. This scientist was **Leon Theremin**, and he realized that his own movements were interfering with the radio waves, and created an audible tone that changed as he moved. He realized that he could actually play the sounds coming from his device, and after some adjustments, the **Theremin** as we know it was created.



Leon Theremin playing his instrument.



Clara Rockmore playing the Theremin

When Leon Theremin came to the United States in 1927, he met **Clara Rockmore**, a Russian musician who once played the violin. She began to work with Theremin and his instrument, and because of her abilities and technique development, is still regarded as the best Thereminist in the world.

Theremini Kit Instructions

NOTE: The Theremin has often been noted as one of the most difficult instruments to play. There are a lot of steps to calibrate such a finicky instrument, but the Theremin can be quite fun once set up. **Do not get discouraged if something does not sound right!** It takes practice for a first time player to calibrate and play the way they want to, and so it may take a few tries to find the best way to play. The instruction book contains great diagrams and steps to help. **Good luck and have fun!**

How-to video: <https://www.youtube.com/watch?v=iPGGOaLoJbw>

Basic Controls

1. **Headphone jack** – can be used with regular 1/8" headphones. Using the jack mutes the internal speaker. Use the VOLUME knob to adjust the headphone volume level.
2. **Volume knob** – controls the volume of the internal speaker, headphones when plugged in, and amplifiers/recording equipment when plugged in. An additional Master Volume can be accessed in the SETUP menu (see **page 17** in the instruction book).
3. **Pitch correction knob** – setting it to the minimum creates no pitch correction (i.e. functioning like a traditional Theremin); setting to the middle position allows enough correction to accurately locate notes, but allows for vibrato and pitch bending; setting to the maximum position allows for only the notes within the selected scale to be played – this allows the player to play note by note without any other sounds in between.
4. **Scale button** – press through to choose through the Theremini's scales (full list on **page 15** of instruction booklet).
5. **Root button** – press through to choose one of the Theremini's root options (full list on **page 15** of instruction booklet).

6. **Auto mute** – press SETUP until you reach the AUTO MUTE screen. By turning it on, the Theremini will mute when you are too far from the pitch antenna.
7. **Tuner display on LCD screen** – displays the chosen scale, root, any effects, and a tuner that shows where your note is when played.

Setting up the Theremini

1. Remove the Pitch antenna from its storage slot on the bottom of the Theremini. Press the catch tab to release it, and gently pull the antenna out.
2. The Theremini can be placed on a microphone stand, camera-style tripod, or on a table. **It is important to avoid placing the Theremini on a metal surface.** This will interfere with the functioning of the antenna. Keep it at least **4 feet away from any large metal objects or sources of movement.**
3. With the Theremini facing you (knobs and screen towards you), place the Pitch antenna in the slot on the right side. It will not click.
4. Press the POWER button on the back panel to turn the Theremini on.

To see complete setup instructions, see **pages 6-8.**

Calibrating the Theremini

***Note:** Calibration must be performed before using the Theremini, and for each time it is moved to a new location. The Theremini adapts to its environment, and so must be calibrated to adapt.

1. Press and hold the SETUP button until the Calibration screen appears.
2. Press the EFFECT button and follow the onscreen prompts.

3. Press SETUP and step at least 4 feet away from the Theremini. The display will countdown, and then prompt you to continue to the next step.
4. Stand at arm's length from the Pitch antenna, then press SETUP. Place your hand very close to the antenna without touching it. This determines your hand position for playing the highest selected note.
5. Press the SETUP button and place your hand about an arm's length away from the Pitch antenna. This determines the hand position for playing the lowest selected note.
6. Press SETUP and place your hand close to the volume antenna (the silver loop on the left side) without touching it. This determines the hand position for muting the Theremini (lowest volume).
7. Press SETUP and raise your hand up over the Volume antenna. This determines the hand position and distance for playing the Theremini at loudest volume.

To see complete instructions refer to **pages 9-11** in the instruction booklet.

Setting the Note Range

1. A smaller note range makes it easier to find and play the right note when starting out. An easy range to start might be C2 to C6.
2. Press the SETUP button to enter the SETUP MODE.
3. Press SETUP again until you reach the NOTE RANGE screen.
4. Turn the PRESETS knob to specify the lowest note (this is where you can turn it to C2).
5. Press the SETUP button to move to the high note section.

6. Turn the PRESETS knob to specify the highest note (this is where you can turn it to C6).
7. Press SETUP to save and advance to the next screen.

Playing the Theremini

1. Face the control panel about 12" back and slightly to the left of center.
2. Have your belly button in line with the left edge of the control panel.
3. Adjust so that you are about an arm's length from the pitch antenna.
4. If standing, place your legs slightly apart. You want to keep as still as possible. Relax your shoulders and drop your elbows to your waist.
5. Hold your left hand just above the volume loop and position your right hand upright, in a loose fist with your index finger sitting on your thumb.
6. Slowly raise your left hand up to hear the Theremini. The higher your hand is, the louder the sound.
7. The closer your right hand is to the pitch antenna, the higher the pitch.

It only takes very small hand and finger movements to play the Theremin. By slowly extending your fingers by each knuckle, you can control the notes being played. See **page 25** of the instruction booklet for a diagram.

The instruction book contains some pitch and volume exercises to help learn how to control your sounds. See **pages 24-28** of the instruction booklet for exercises and playing techniques.

Theremini Kit – Program Suggestions

- Make your own Sci-Fi music – put on an old Hollywood sci-fi (ex: *The Day The Earth Stood Still*) with the sound turned down, and see what space-like sounds you can make with the Theremini to go with the film instead
- Alternate version: have kids come up with a sci-fi skit or play, and as they perform, other participants make space-like music with their Theremini
- Watch *Theremin: An Electronic Odyssey* to learn more about the Theremin's origins; its creator, Leon Theremin; and the best player in the world, Clara Rockmore.
- Theremini orchestra: have participants work on the hand exercises from the book and try to keep notes steady. In a follow-up session, have participants try to create a song (improvisation will be key with this tricky instrument!)