

PIGTRONIX

MOTHERSHIP 2

User's Guide



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WELCOME ABOARD.

Mothership 2 is a velocity-sensitive, pitch-tracking, 3-voice analog synthesizer with oscillator hard sync and pitch modulation via portamento and CV / Expression control. A user-friendly guitar synth with real-time pitch and amplitude tracking, Mothership 2 offers switchable preset tunings and a devastating Sync effect that delivers new modulation effects for guitar, bass and beyond.

The dashboard of the Mothership 2 contains five custom-made dual-concentric potentiometers and a pair of toggle switches. The top row of controls provides individual level knobs for VCO (triangle wave) and Square wave voices as well as the original Clean guitar sound and a gut-busting Sub-octave Sine wave voice that can be removed from the main mix bus and sent to its own dedicated bass amplifier when the SUB output jack is used.



EXPLANATION OF CONTROLS



- 1 **Square:** Sets the level of the square wave voice.
- 2 **Sub:** Sets the level of the sub voice.
- 3 **Clean:** Sets the level of the clean signal.
- 4 **VCO:** Sets the level of the triangle wave voice.

- 5 Out:** Sets the overall output volume.
- 6 Glide:** Sets the portamento time for the square and VCO voices.
- 7 Dynamics:** Sets the responsiveness of the VCO to the amplitude of your playing.
- 8 Tune:** Sets the tuning for the square and VCO voices.
- 9 Timbre:** Sets the amount of sub-octave square wave in sync mode.
- 10 Sweep:** Changes the nature of the harmonics created in sync mode.
- 11 Sync:** Turns the sync function on and off.
- 12 Octave / Manual / Unison:** Selects the pitch of the Square and VCO voices.

Jacks

13 DC 18V

Use only the 18-Volt, 300mA, negative tip power supply that came with your Mothership 2. Using the wrong power supply is likely to result in a damaged pedal.

14 Sub Out

This jack is an auxiliary output for the low frequency content from the SUB circuit only. When using the SUB OUT jack, the SUB voice will be removed from the output mixer.

WARNING: The SUB OUT should only be sent to an audio system that can handle significant amounts of low frequency content.

15 Output

Effect output, plug in your amp, mixer, or DI box here.

16 Expression

This is the TRS (Stereo) 20K expression pedal input for pitch bend. A TS (Mono) cable can be used to send control voltage [CV] signals to the VCO.

Note: With SYNC off, the expression pedal controls the pitch of the VCO and square wave voices. With SYNC on, the expression pedal controls the pitch of the overtone. The pitch is increased as the treadle moves towards the toe side.

17 Input

Effect input, plug in your instrument here.

Mothership 2 requires a negative tip, 18VDC power supply.
Mothership 2 does not take batteries.

Guided Tour

The following steps guide you through the sonic palette of the Mothership 2 and show you how to get at the range of tones that it has to offer.

1. Set all of the controls fully counter-clockwise, and set each toggle in the up position. Make sure the LED is off. The Mothership 2 is in bypass mode. Play your instrument and make sure a clean sound is passing through the pedal.
2. Turn the OUT, CLEAN, VCO, and DYNAMICS knobs up to 12:00. Click the Engage footswitch to turn the Mothership 2 on. The blue LED should come on.
3. Play the highest string on your instrument and adjust the TUNE control so that the pitch of the VCO is an octave above the pitch of the clean signal. Once it is in tune, play your instrument in all registers.
4. Explore the range of the TUNE knob in OCTAVE, MANUAL, and UNISON modes.
5. Now turn the CLEAN knob all the way down to hear the VCO (triangle wave) voice by itself.
6. Explore the range of the DYNAMICS knob. Adjusting the DYNAMICS will control how closely the changes in your input volume affect the volume of the VCO and square wave voices.
7. Turn the square wave knob to 12:00 to hear the square wave signal which has more harmonic content than the VCO (think of a saxophone).
8. Turn up the GLIDE knob to 11:00 to hear the portamento effect. Explore the range of the GLIDE knob.

9. Turn up the SUB knob to 12:00 to hear the sub-octave sine wave.

Note: Not all amplifiers can reproduce the extreme low end of the Pigtronix SUB voice. If you are having trouble hearing the sub octave in your amp, run the SUB OUT jack to a bass rig to truly rock the house.

10. Turn the SYNC toggle down to activate SYNC mode. Explore the range of the TIMBRE knob to hear the various synthesizer textures. Explore the range of the SWEEP knob to hear the different possible overtones.

11. Vary the mix of the VCO and square wave voices to explore the differences between a triangle wave and a square wave as an overtone.

Expression

1. Plug in a TRS 20K expression pedal into the EXPRESSION jack.

2. With SYNC mode off, heel down on the expression pedal will match the pitch set by the TUNE knob. With SYNC mode on, heel down on the expression pedal will match the pitch set by the SWEEP knob.

3. Rock the expression pedal forward to explore the range of pitch. When fully toe down, the synthesizer will reach its maximum pitch.

PIGTRONIX LIMITED WARRANTY

Your new Pigtronix product is warranted to be free from defects in materials and workmanship for 1 year from the original date of purchase. Warranty applies only to the original retail purchaser of a registered Pigtronix product, subject to the limitations contained in this warranty.

THIS WARRANTY IS EXTENDED TO THE ORIGINAL RETAIL PURCHASER OF PIGTRONIX PRODUCTS BOUGHT ON OR AFTER JANUARY 1, 2020 ONLY AND MAY NOT BE TRANSFERRED OR ASSIGNED TO SUBSEQUENT OWNERS. IN ORDER TO VALIDATE YOUR WARRANTY, AND AS A CONDITION PRECEDENT TO WARRANTY COVERAGE HEREUNDER, YOU MUST REGISTER YOUR PRODUCT WITHIN THIRTY (30) DAYS FOLLOWING THE ORIGINAL DATE OF PURCHASE. YOUR PROOF OF PURCHASE OR SALES RECEIPT MUST ACCOMPANY ALL REQUESTS FOR WARRANTY COVERAGE— YOU MAY SUBMIT YOUR RECEIPT ON THE REGISTRATION FORM. IF YOU DO NOT REGISTER THE PRODUCT WITHIN 30 DAYS OF PURCHASE, YOUR PRODUCT WILL NOT BE SERVICED UNDER WARRANTY.

If your product is destroyed, lost or damaged beyond repair while in the possession of Pigtronix for repair, Pigtronix will replace that product with one of the same or most similar style of a value not in excess of the original purchase price of your pedal. Any insurance covering the pedal, including but not limited to collector's value insurance, must be carried by you at your expense.

This warranty covers the cost of both labor and materials on repairs deemed necessary by our Customer Service Representative.

THIS WARRANTY DOES NOT COVER:

- Any product that has been altered or modified in any way or upon which the serial number has been tampered with or altered.
- Any product whose warranty has been altered or upon which false information has been given.
- Any product that has been damaged due to misuse, negligence, accident, or improper operation.
- The subjective issue of tonal characteristics.
- Shipping damages of any kind.
- Any product that has been subjected to extremes of humidity or temperature
- Normal wear and tear
- Any product that has been purchased from an unauthorized dealer, or upon which unauthorized repair or service has been performed.

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Steps To File for Warranty Coverage:

1. Register your new guitar at <http://pigtronix.com/warranty>
2. Complete the warranty request form available at <http://pigtronix.com/support> and we will handle it from there!

CONTACT INFORMATION

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