

POLY D

Analog 4-Voice Polyphonic Synthesizer with 37 Full-Size Keys, 4 VCOs, Classic Ladder Filter, LFO, BBD Stereo Chorus, Distortion, 32-Step Sequencer and Arpeggiator



User Support Bulletin

Introduction

The unit is carefully calibrated at the factory. The performance may change over time or due to environmental changes, and the following recalibration procedures can be used to bring it back to its factory settings. If you do not feel comfortable doing these calibrations, then we recommend they are done by an experienced audio service technician. This is especially true for those units that need to be opened to gain access to voltage test points and calibration potentiometers.

CAUTION: Incorrect calibration or damage to the delicate adjustment potentiometers may lead to the unit becoming inoperable.

Note: Although re-calibration will not invalidate the warranty, any damage caused during re-calibration may invalidate the warranty.

Equipment required

1. Guitar tuner
2. Small insulated trimmer screwdriver

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Calibration Procedure



Follow all steps in the order in which they are presented.

STEP 1

Make sure the POLY D has been powered on for more than 30 minutes, and that it is in a place where the temperature will not change drastically while performing the calibration.

STEP 2

Initial Settings:

- TUNE, OSCILLATOR-2, OSCILLATOR-3, OSCILLATOR-4 to middle position
- RANGE set to 8'
- WAVEFORM triangle waveform
- OSC volume turn to 10
- CUTOFF FREQUENCY set to maximum
- EMPHASIS set to 0
- AMOUNT OF CONTOUR set to 0
- SUSTAIN of Loudness contour set to 10
- MODE set to MONO
- OSCILLATOR MODULATION turn to left side
- OSC4 CONTROL turn up

STEP 3

Connect a guitar tuner to the main output L or R jack.

OSC1 Range and Scale Calibration

The back panel of the POLY D has various trim pots that are accessible using an insulated trim screwdriver.



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**STEP
1**

Turn on the OSC1 switch.

**STEP
2**

Move the TRANSPOSE switch to the middle position, press and hold A5 key (figure1) and adjust the OSC1 RANGE trimpot on the back panel while observing the tuner display.



Figure 1

**STEP
3**

Move TRANSPOSE down, press and hold A2 key (figure2) and adjust the OSC1 SCALE trimpot on the back panel while observing the tuner display.

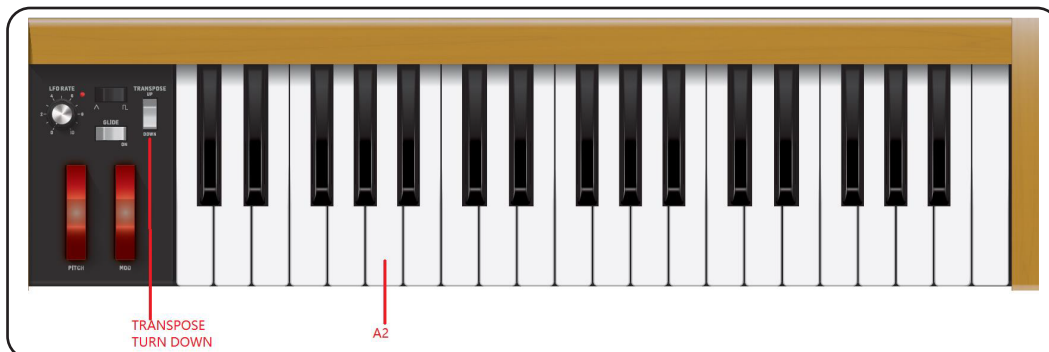


Figure 2

**STEP
4**

Repeat steps 2 and 3 until both notes are correct in the tuner display.

**STEP
5**

Turn off the OSC1 switches.

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OSC2/ OSC3/ OSC4 Range and Scale Calibration

**STEP
1**

Repeat the procedure described above for the OSC2/3/4 switches and OSC2/3/4 RANGE and SCALE trimpots.

Octave Range Calibration

This calibration is done after the oscillator calibration.

**STEP
1**

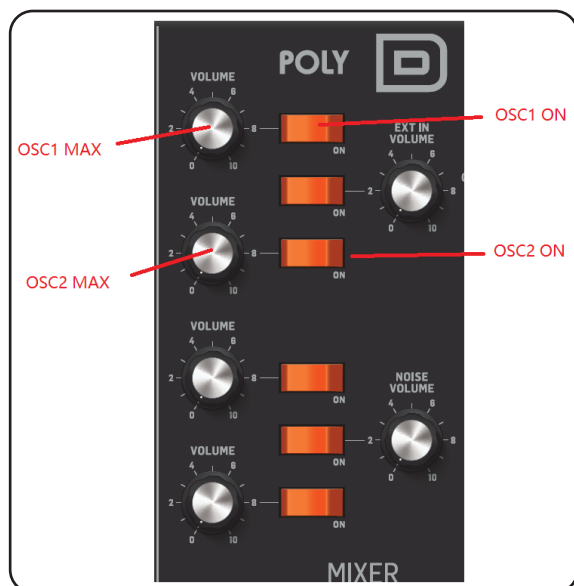
Turn on OSC1 VOLUME switch.

**STEP
2**

Turn all the Octave RANGE knobs to the 2' position in the OSCILLATOR BANK section.

**STEP
3**

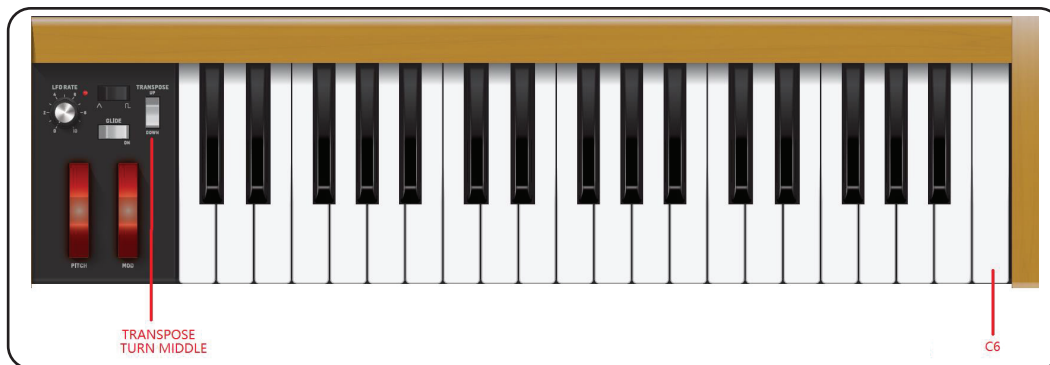
Turn on the front panel OSC2 VOLUME switch in the MIXER section. (OSC1 is already on, OSC1 and 2 Volumes are up).



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**STEP
4**

Press and hold the C6 key. You should hear both OSC1 and OSC2. Adjust the headphone volume or main volume as required.



**STEP
5**

Listen carefully and adjust the front panel OSCILLATOR-2 Tune knob until there are zero beats between OSC1 and OSC2.

**STEP
6**

Turn the front panel OSC2 Octave RANGE knob to the 8' position.

**STEP
7**

Keep holding the C6 key.

**STEP
8**

Listen carefully, and adjust the OSC RANGE trimpot on the back panel, for zero beats between OSC1 (Range=2') and OSC2 (Range=8').

**STEP
9**

Repeat step 6 with different settings of the RANGE knob and repeat steps 7 and 8 until both oscillators are in tune with each other at all settings of the Octave RANGE knob.

**STEP
10**

This completes the Octave Range Calibration.

End of Procedure