ODYSSEY

Analog Synthesizer with 37 Full-Size Keys,
Dual VCOs, 3-Way Multi-Mode VCFs,
32-Step Sequencer, Arpeggiator and
Klark Teknik FX

User Support Bulletin

Introduction

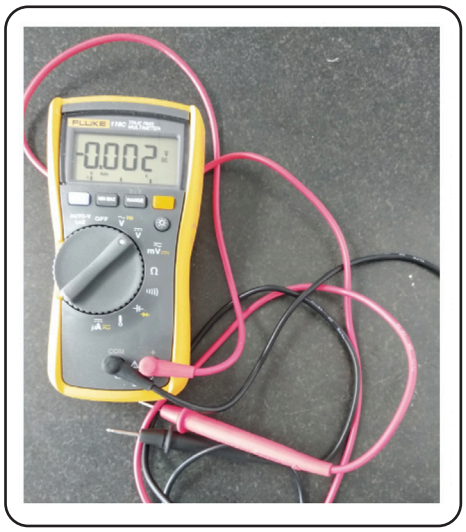
The unit is carefully calibrated at the factory. The performance may change over time or due to environmental changes, and the following recalibration procedures can be used to bring it back to its factory settings. If you do not feel comfortable doing these calibrations, then we recommend they are done 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 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. A DC multimeter with 1 mV resolution



2. Medium crosshead screwdriver

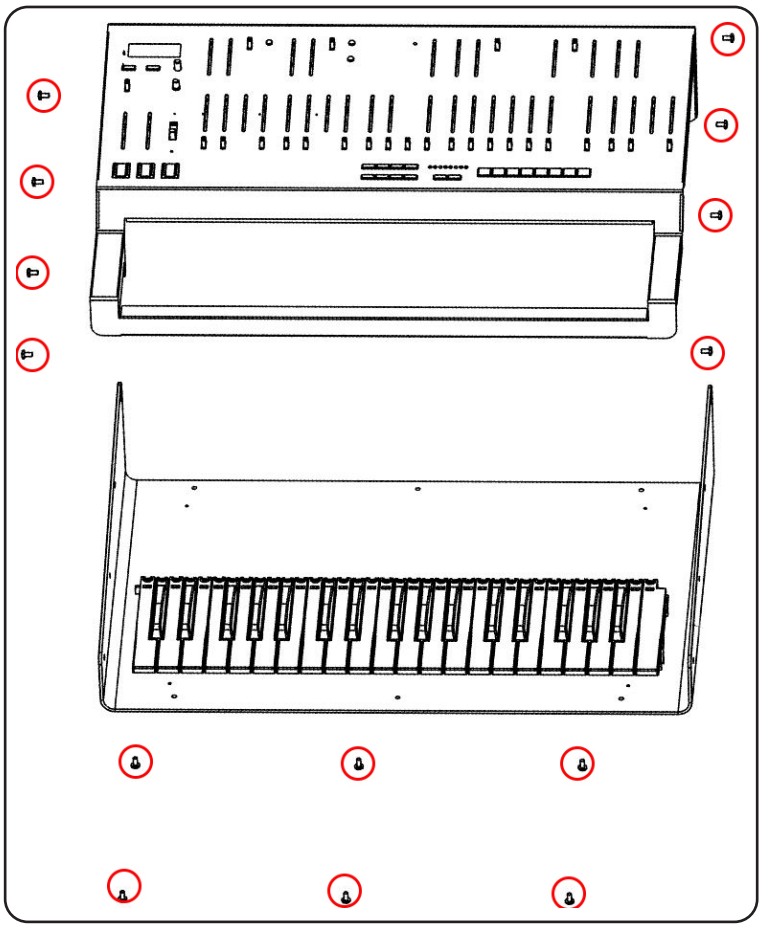
ODYSSEY

Preparation

STEP 1 Make sure your ODYSSEY has been powered on for at least 1 hour, and that it is in a place where the temperature will not change drastically while performing the calibration.

STEP 2 Remove all cables from the unit.

STEP 3 The calibrations require access to connector X12 on the bottom surface of the main printed circuit board (PCB). Disconnect the top panel from the bottom chassis by unscrewing 4 screws from each side, and 6 screws from the bottom panel (3 along the front edge, and 3 along the back edge). Do not undo the screws holding the keyboard to the bottom chassis.

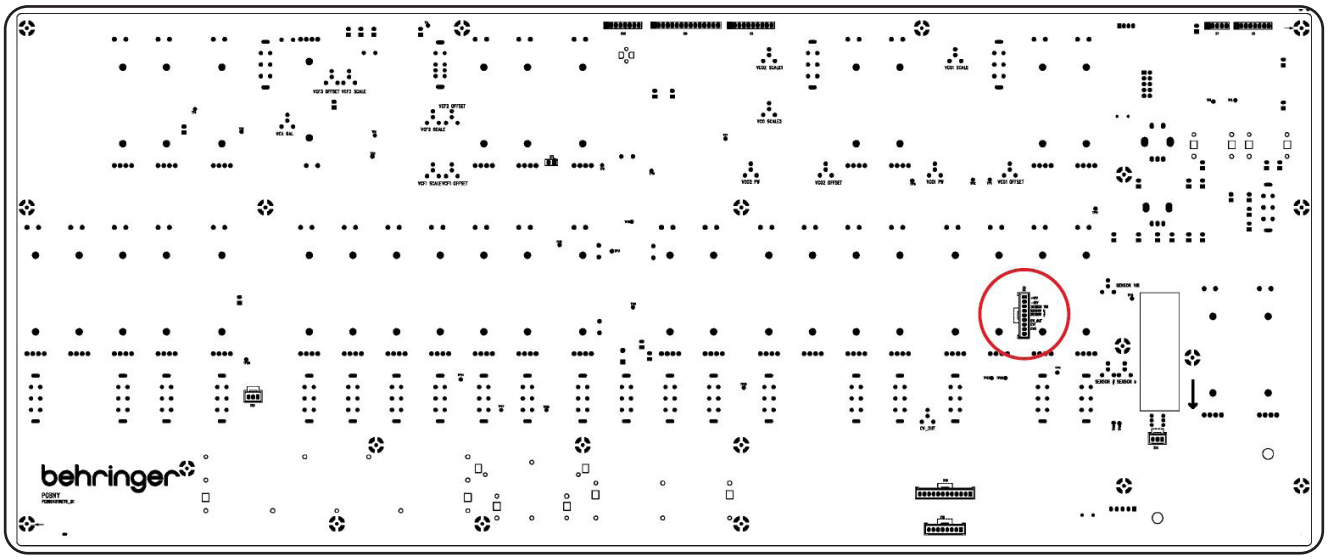


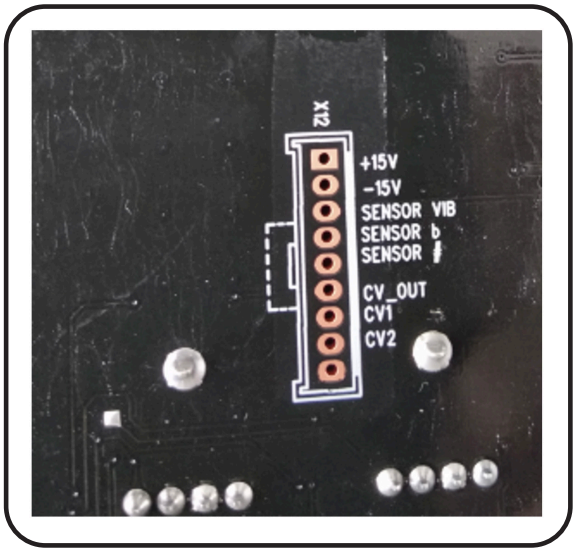
ODYSSEY

STEP 4 Carefully slide the top panel forward about an inch, until its front edge clears the keyboard keys. Do not strain the two ribbon cables to the keyboard.

STEP 5 Carefully lift up the front edge until you see the two ribbon cables coming from the keyboard. Then disconnect these two ribbon cables from the bottom of the main pcb.

STEP 6 Locate the connector X12 on the bottom of the main PCB.

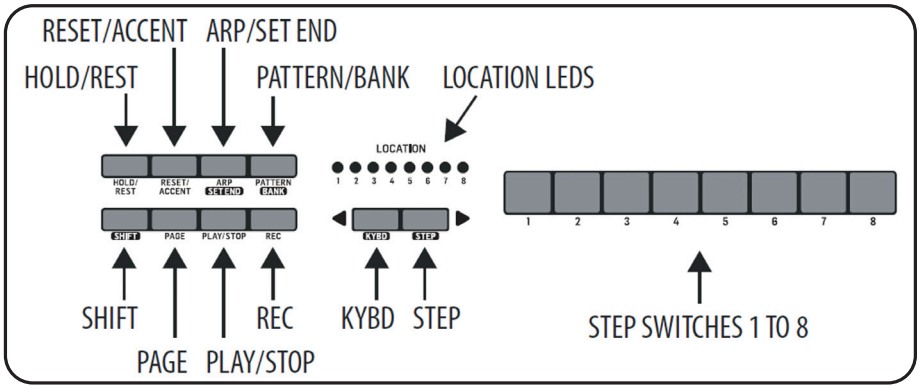




CAUTION: Be carefully not to touch any components of the printed circuit board, in order to prevent damage due to electrostatic discharge.

CV Calibration Procedure

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



Key names and LEDs

In this mode, the buttons have new functions:
There are four test modes A / B / C / D to be calibrated. Their target voltage is -5 V / 0 V / 5 V / 8 V respectively.

Button Name	Function
HOLD/REST	Select test mode A
RESET/ACCENT	Select test mode B
ARP/SETEND	Select test mode C
PATTERN/BANK	Select test mode D
SHIFT	—
PAGE	CV_OUT
PLAY/STOP	CV2
REC	Save

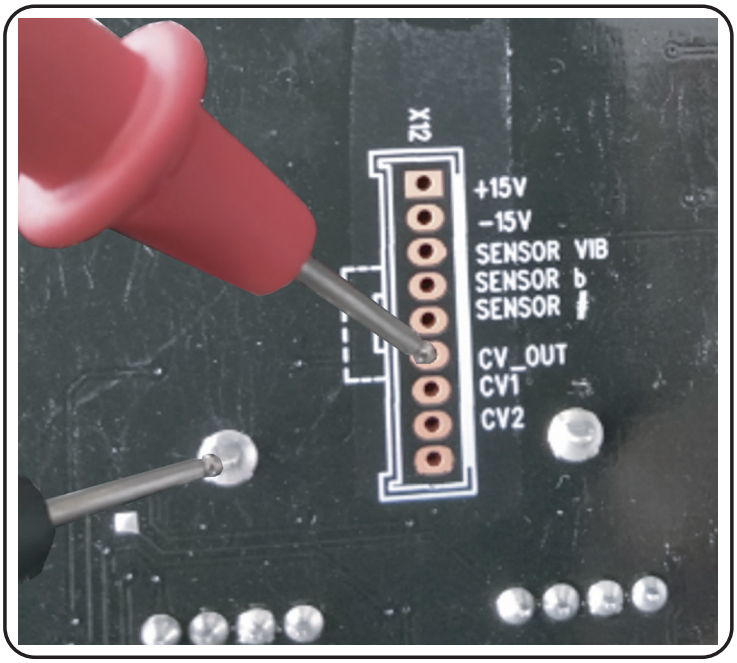
Button Name	Function
STEP1	Select X1 (about ±1 mV)
STEP2	Select X2 (about ±4.5 mV)
STEP4	Select X3 (about ±9 mV)
STEP4	Select X4 (about ±45 mV)
STEP5	—
STEP6	—
STEP7	—
STEP8	—
KYBD	Decrease
STEP	Increase

ODYSSEY

STEP 1 Press "KYBD + STEP" and then power up; all the LEDs will light up in sequencer.

STEP 2 Then press "Shift + KYBD + STEP" to enter user CV calibration.

STEP 3 Press "PAGE" to select "CV_OUT" channel, then measure CV_OUT point with a multimeter.



STEP 4 Press "HOLD/REST" to select test mode A. You need to watch the multimeter to adjust the output voltage.
You can press "KYBD" or "STEP" to adjust the CV value until it is close to target level "-5 V".
(If required, press "STEP1" "STEP2" "STEP3" or "STEP4" to select the size of voltage increments : "X1" "X2" "X3" or "X4").

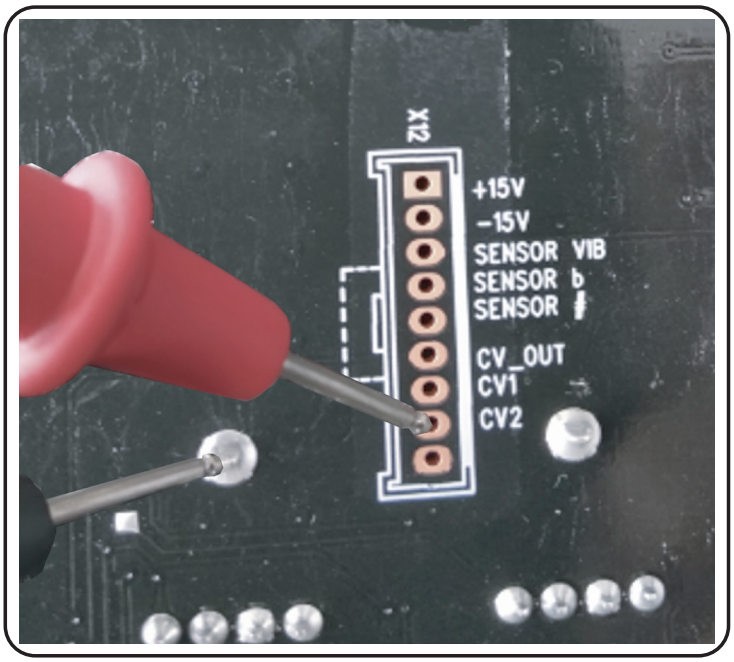
STEP 5 Press "RESET/ACCENT" to select test mode B.
Press "KYBD" and "STEP" to adjust the CV value until it is close to target level "0 V".

STEP 6 Press "ARP/SETEND" to select test mode C.
Press "KYBD" and "STEP" to adjust the CV value until it is close to target level "5 V".

STEP 7 Press "ARP/SETEND" to select test mode C.
Press "KYBD" and "STEP" to adjust the CV value until it is close to target level "8 V".

ODYSSEY

STEP 8 Press "PLAY/STOP" to select "CV2" channel, then measure CV2 point with multimeter.



STEP 9 Press "HOLD/REST" to select test mode A. You need to watch the multimeter to adjust the output voltage. You can press "KYBD" or "STEP" to adjust the CV value until it is close to target level "-5 V".
(Press "STEP1" "STEP2" "STEP3" or "STEP4" to select the size of voltage increments : "X1" "X2" "X3" or "X4")

STEP 10 Press "RESET/ACCENT" to select test mode B.
Press "KYBD" or "STEP" to adjust the CV value until it is close to target level "0 V".

STEP 11 Press "ARP/SETEND" to select test mode C.
Press "KYBD" or "STEP" to adjust the CV value until it is close to target level "5 V".

STEP 12 Press "PATTERN/BANK" to select test mode D.
Press "KYBD" or "STEP" to adjust the CV value until it is close to target level "8 V".

STEP 13 Press "REC" to save and finish CV calibration.

ODYSSEY

STEP 14 Turn off the power and unplug the power connector.

STEP 15 Make sure the two ribobon cable to the keyboard are correctly inserted and secured to the bottom of the main PCB.

STEP 16 Refit the top panel back into the bottom chassis and secure with all the screws.

End of Procedure