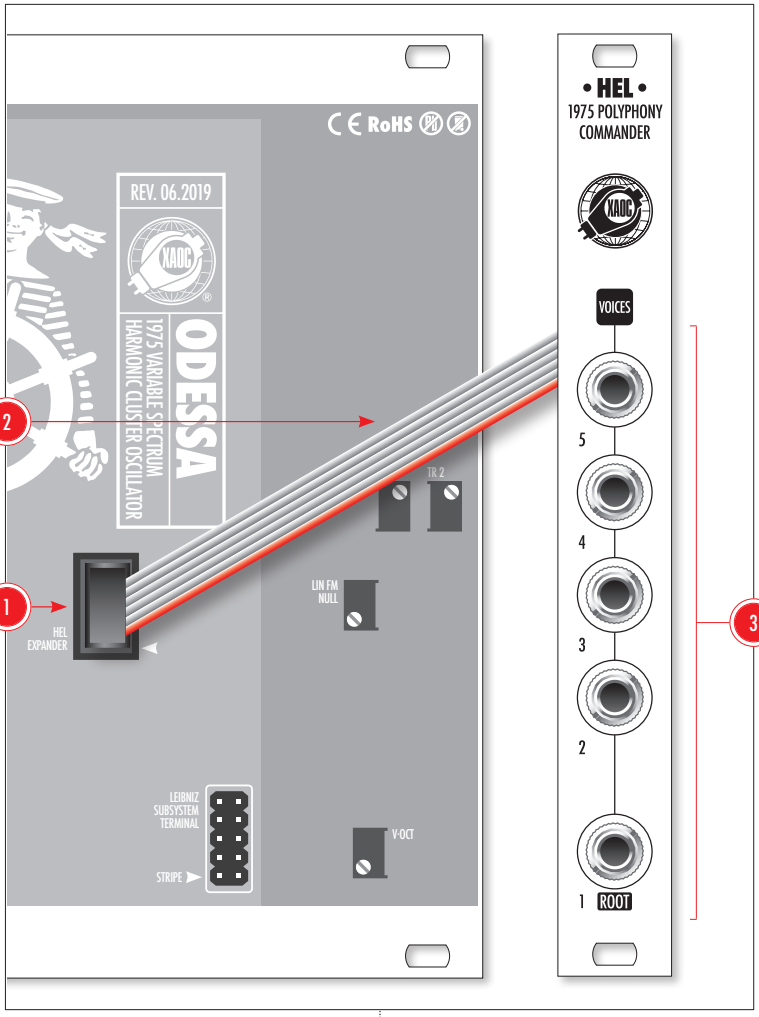
HEL

POLYPHONY
COMMANDER

Model of 1975

OPERATOR'S MANUAL *rev. 1975/X/1.1*


REV. 06.2019
XAOC
ODESSA
1975 VARIABLE SPECTRUM
HARMONIC CLUSTER OSCILLATOR
TR 2
LIN FM
NULL
HEL
EXPANDER
LEIBNIZ
SUBSYSTEM
TERMINAL
STRIPE
V-OCT
• HEL •
1975 POLYPHONY
COMMANDER
XAOC
VOICES
5
4
3
2
1
ROOT
1
2
3

SALUT

Thank you for purchasing this Xaoc Devices product. Hel [hɛl] is a simple, universal expander for polyphonic oscillator modules from Xaoc Devices, such as Odessa. It allows to freely control up to five voices of polyphony via individual Volt/octave inputs. To find out more about Odessa and other Xaoc Devices products, please visit www.xaocdevices.com.

INSTALLATION

Hel installation is simple, however, please first read through the following steps.

1. *Find the 6-pin shrouded header on the back of your oscillator module. For example, in Odessa, the header ❶ is located in the center of the smaller circuit board.*

2. *Plug the Hel ribbon connector ❷ into the expansion header so that the red stripe or mark points toward the white mark printed next to the expander header.* **CAUTION!** *Connecting the cable incorrectly will destroy your unit!*

3. *Carefully put both units back in your case and fasten using the provided screws.*

CAUTION! *Hel does not require its own power connector. Do not plug the power connector instead of the inter-conector cable! Doing so will most probably damage the module and of course automatically void the warranty.*

FEATURES & OPERATION

On its front panel, Hel offers five **VOICES** *CV inputs ❸ that accept 0...5V. The inputs are scaled in V/oct and each of them offers an independent control over a single voice, which is detuned with respect to the base tuning of your oscillator that may also offer its global V/oct input. The actual number of voices depends on the capabilities of the oscillator. For example, Odessa offers 1, 3 or 5 voices.*

The inputs of Hel are quantized in a chromatic scale (every change of 1/12 V corresponds to a semitone). Please note that the Spread controls in some modules (eg. Odessa) determine the degree of symmetric detune of the unison voices when Hel is not used, but they are still operational with Hel installed.

Turning the **SPREAD** *knob does not affect the central voice which corresponds to the* **ROOT** *input in Hel. Detuning affects voices* **2** *and* **4** *(they are shifted downwards) as well as* **3** *and* **5** *(shifted upwards).*

It is possible to achieve a varying degree of dissonance by exploiting the combined effect of continuous detuning and quantized detuning via Hel.

ACCESSORY

Our Coal Mine black panels are available for all Xaoc Devices modules. Sold separately. Ask your favorite retailer. •

WARRANTY TERMS

XAOC DEVICES WARRANTS THIS PRODUCT TO BE FREE OF DEFECTS IN MATERIALS OR WORKMANSHIP, AND TO CONFORM WITH THE SPECIFICATIONS AT THE TIME OF SHIPMENT FOR A PERIOD OF ONE YEAR FROM THE DATE OF PURCHASE. DURING THAT PERIOD ANY MALFUNCTIONING OR DAMAGED UNITS WILL BE REPAIRED, SERVICED, AND CALIBRATED ON A RETURN-TO-FACTORY BASIS. THIS WARRANTY DOES NOT COVER ANY PROBLEMS RESULTING FROM DAMAGES DURING SHIPPING, INCORRECT INSTALLATION OR POWER SUPPLY, IMPROPER WORKING ENVIRONMENT, ABUSIVE TREATMENT OR ANY OTHER OBVIOUS USER-INFLICTED FAULT.

LEGACY SUPPORT

IF SOMETHING WENT WRONG WITH A XAOC PRODUCT AFTER THE WARRANTY PERIOD IS OVER, NO NEED TO WORRY, AS WE'RE STILL HAPPY TO HELP! THIS APPLIES TO ANY DEVICE, WHEREVER AND WHENEVER ORIGINALLY ACQUIRED. HOWEVER, IN SPECIFIC CASES, WE RESERVE THE RIGHT TO CHARGE FOR LABOR, PARTS AND TRANSIT EXPENSES WHERE APPLICABLE.

RETURN POLICY

THE DEVICE INTENDED FOR REPAIR OR REPLACEMENT UNDER WARRANTY NEEDS TO BE SHIPPED IN THE ORIGINAL PACKAGING ONLY, SO PLEASE KEEP IT JUST IN CASE. ALSO, A FILLED RMA FORM MUST BE INCLUDED. XAOC DEVICES CAN NOT TAKE ANY RESPONSIBILITY FOR DAMAGES CAUSED DURING TRANSPORT. PRIOR TO SENDING US ANYTHING, PLEASE CONTACT US AT **SUPPORT@XAOCDEVICES.COM.** NOTE THAT ANY UNSOLICITED PARCEL WILL BE REJECTED AND RETURNED!

GENERAL INQUIRIES

FOR USER FEEDBACK SUGGESTIONS, DISTRIBUTION TERMS, FEEL FREE TO CONTACT XAOC DEVICES AT **INFO@XAOCDEVICES.COM.** PLEASE VISIT THE XAOCDEVICES.COM FOR INFORMATION ABOUT THE CURRENT PRODUCT LINE, USER MANUALS, FIRMWARE UPDATES, TUTORIALS, AND MERCHANDISE.

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