EKKO™ EK-1 Delay Pedal

USER MANUAL

EKKO EK-1 User Manual rev. 1.0.9, November, 2015



CONGRATULATIONS!

You are now the owner of an EKKO EK-1 delay pedal!

EKKO is a high-quality aluminum, standard semi-analog delay pedal with true bypass. Semi-analog means that the direct signal from your guitar is always direct through, whether the pedal is in bypass mode or not. It can be controlled like a stand-alone effects pedal or using the AERO™ AE-1 wireless controller (optional):



FCC Statements

15.19 (a)(3):
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

15.21:
Unauthorized changes or modifications not expressly approved by Aalberg Audio could void the user's authority to operate the equipment.

15.105(b):
Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna. —Increase the separation between the equipment and receiver. —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. —Consult the dealer or an experienced radio/TV technician for help.

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1. GETTING STARTED

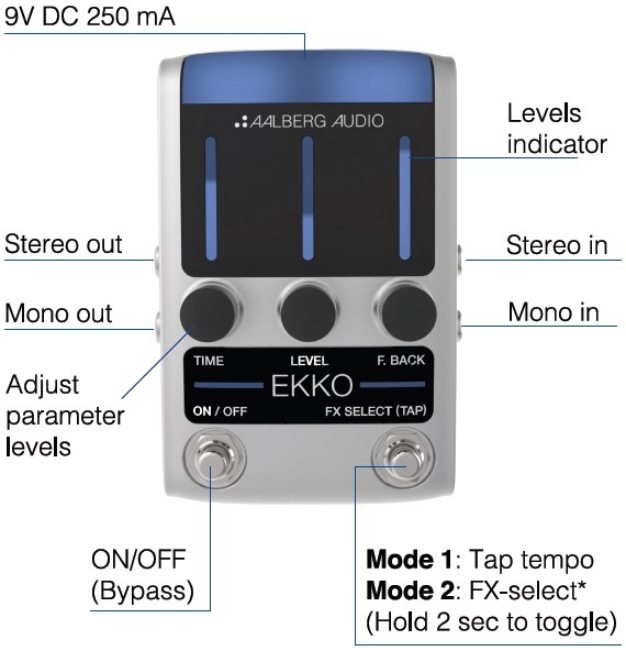
To get your pedal up and running you need a standard 9V DC, 2.1 mm plug, center negative power supply (minimum 250 mA). You will find the connector at the back of your pedal.

The pedal supports both mono and stereo connections. Combinations of these will lead to different properties in the output signal. See the input/output setups section for further explanations.

2. CONTROLS

TIME	Time between echoes
LEVEL	Adjusts the output level of your echo signal relative to the level of the direct signal (0-100%)
FEEDBACK	Controls the number of echoes
FX SELECT/TAP TEMPO	Two modes: - TAP – tap the desired delay time using footswitch (TAP) - FX-SELECT – Choose active effect parameter (*TIME, LEVEL or FEEDBACK*) for wireless control with AERO controller (optional)
ON/OFF	Set the pedal to ON (activated) or OFF (true bypass).

3. OVERVIEW



*Set active parameter for AERO™ AE-1 Wireless Controller

4. SPECIFICATIONS

Power supply	9V DC, 2.1 mm plug, center negative (not included)
Current draw	250 mA
Input impedance@1kHz	~1M Ohm
Output impedance@1kHz	< 1k Ohm
Maximum input signal	3.22 Vp-p (2.28 Vrms)
Delay time	0 ms – 2000 ms
Sound Quality (sample-/bit rate)	48 kHz/24-bits
Connectors	- INPUT (mono/stereo) - OUTPUT (mono/stereo) - DC power jack
Controls	TIME, LEVEL, F.BACK, ON/OFF (true bypass), FX SELECT (TAP)
Parameter level indicators	LED bar indicators for *TIME, LEVEL* and *F.BACK*
Dimensions incl. knobs (W x H x D)	93 x 57 x 142 mm / 3.7 x 2.2 x 5.6 inches
Weight (excl. packaging)	0.372 kg / 13.0 oz
Weight (incl. packaging)	0.442 kg / 15.6 oz

5. SOFTWARE UPDATE

Some features, like the option of using one AERO to control several pedals, is available as a software update. Therefore we recommend that you update your Aalberg effects pedal. Here is how you do it:

NB! The Aalberg Updater App will be available soon through App Store

A) Aalberg Effects Pedals

1. **Tablet/Iphone:** Visit Apple App Store or Google Play and download the app named "Aalberg Update"
2. **Pedal:** Press and hold both ON/OFF and FX-SELECT footswitch while plugging in the power.
3. **Tablet/Iphone:** After your device has connected with the pedal choose ”update”.

B) AERO Wireless Controller

1. **Tablet/Iphone:** Visit Apple App Store or Google Play and download the app named "Aalberg Update"

2. **AERO:** Press and hold the preset '3' button and knob button while simultaneously turning the unit on (slide switch set to '1'). **B – 2) Set AERO in update mode**
3. **Tablet/Iphone:** After your device has connected with the AERO choose "update".



Set pedal in update mode



Set AERO in update mode

For more information, please visit: www.aalbergaudio.com/support

6. WIRELESS CONTROL – PAIRING

Before you can control your AALBERG pedal(s) with the AERO Wireless Controller, you need to pair the devices.

(NB! Option B) will be available as a software update soon! Go to the article: *Software Update,* for more info.)

A) One AERO Wireless Controller to one Aalberg Effects Pedal

1. AERO: Turn off (slide switch set to '0')
2. Effects pedal: Unplug power adaptor
3. Effects pedal: Press and hold FX-SELECT footswitch while plugging in the power (LEDs will start blinking)
4. AERO: Press and hold left button and knob button while simultaneously turning the unit on (slide switch set to '1').
5. AERO: Press and hold the AERO knob button for 2 seconds then release it. To confirm syncing turn the AERO off and on.
6. Voilà: Pairing complete!

B) One AERO Wireless Controller to several Aalberg Effects Pedals*

1. AERO: Turn off (slide switch set to '0')
2. Effects pedals: Unplug power adaptor for all pedals to be paired.
3. AERO: Press and hold left button and knob button while simultaneously turning the unit on (slide switch set to '1')
4. Effects pedals: Leftmost pedal: Press and hold FX-SELECT footswitch while plugging in the power (LEDs will start blinking)
5. Effects pedals: repeat step 4) for the rest of the pedals from left to right
6. AERO: Press and hold the AERO knob button for 2 seconds then release it.To confirm syncing turn the AERO off and on
7. Voilà: Pairing complete!

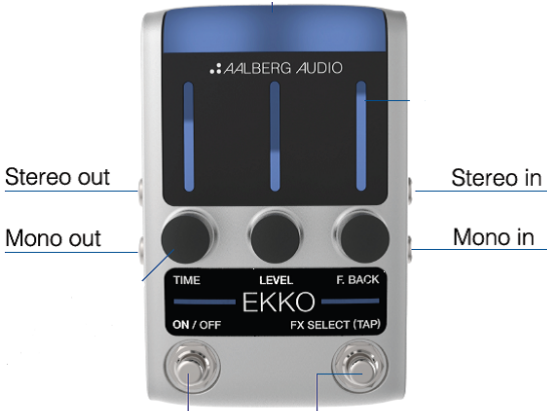
*8 pedals maximum

For more information, please visit: www.aalbergaudio.com/support

7. INPUT/OUTPUT SETUPS

The Aalberg EKKO™ EK-1 Delay Pedal offers the following mono/stereo configurations:

1. Mono in/Mono out
2. Ping-pong stereo
3. Dry/wet split
4. Dual mono



1. **Mono in/Mono out**
   Connect your instrument to *Mono in* and the amplifier to *Mono out.*

2. **Ping-pong stereo**
   Connect your instrument to *Mono in* then connect one amplifier to *Mono out* and another amplifier to *Stereo out*. The echoes of the direct signal will now alternate between the two outputs.

3. **Dry/wet split**
   Connecting your instrument to *Stereo in* will split the dry wet signal as follows:
   - *Mono out*: 100% wet signal
   - *Stereo out*: 100% dry signal

4. **Dual mono**
   This is useful if you want to maintain the stereo path for pedals in the signal chain. Connect the stereo outs from the previous pedal to both inputs on the EKKO (Mono in = left, Stereo in = right).

8. DISCLAIMERS

All use of our products is undertaken at your own risk and expense and Aalberg Audio cannot be held liable for any direct or indirect losses or cost incurred through use, default or malfunction of our products. Repair or replacement of defective units under our warranty provisions serve as the sole remedy in the unlikely event that our products does not comply with product specifications.

Aalberg Audio accepts no liability for any damages made to persons or equipment when attaching or removing the industry velcro (AERO accessory).

9. WARRANTY

ONLY SEND PRODUCTS THAT:
- YOU HAVE TESTED YOURSELF
- ARE FOLLOWED BY A COPY OF THE RECEIPT
- ARE FOLLOWED BY AN EXPLANATION OF THE FAILURE

We offer a 2-year warranty on all our products. In the unlikely event of a malfunction, please contact us at support@aalbergaudio.com before sending us the product for repair. When the product has been returned to us at the cost of the sender, we will repair or replace your product and send it back to you - free of charge and usually within 4 weeks (shipping not included). The

product needs to be accompanied by a copy of your receipt, serial number, return address, phone number, e-mail address and a brief explanation of the problem. If the product is altered or repaired by someone unauthorized by Aalberg Audio the warranty is no longer valid. Stores and distributors must always check products before sending them to Aalberg Audio for repairs. Please note that we cannot replace a product before we have received it here in Trondheim, Norway.

10. HISTORY

The inspiration for the delay pedals with wireless controller came to guitar player and inventor Rune Aalberg Alstad back in 2009, when he was tired of having to run over to the pedals and bend down all the time to change the effect settings. In 2012 he met the engineer Torkild Indstøy and the entrepreneur Aleksander Torstensen, and five years later, after lots of testing and prototyping we are proud to introduce the world's first EKKO EK-1 Delay Pedal with the AERO AE-1 Wireless Controller. (Below you can see the different development stages (from left to right): "*The Coffee Filter*", 2010 – "*The Tank*", 2012 – "*Prototype 3"*, 2013, "Prototype 4, 2014" - The final product, 2015)



11. IPR-RELATED

Design Protection pending in EU & USA
International Patent pending PCT/NO2014/050236

12. COMPLIANCE

Aalberg Audio accept and follow these regulations and directives.







FCC ID: 2AFRR-010304

13. ABOUT AALBERG AUDIO

Aalberg Audio AS is located in Trondheim, Norway. We produce wireless guitar effects with accompanying hardware and software. Please don't hesitate to contact us if you have any questions or inquiries! Visit: www.aalbergaudio.com

AALBERG AUDIO

www.aalbergaudio.com

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