

ALD SYSTEMS, INC.

# Overview of EID1R Configuration Utility

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A Mobile Application for Android Devices

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**8/31/2020**

The EID1R Configuration Utility version 1.1 is a mobile platform application for use on Android devices as an alternative choice to programming Electronic Initiation Devices with the full EID Mission Control software used on Windows-based computers. This document provides a brief overview of the application and its use to program Electronic Initiation Devices. This application version is intended for use only with model EID1R devices. Attempted use with incompatible device models will result in undesirable operation.

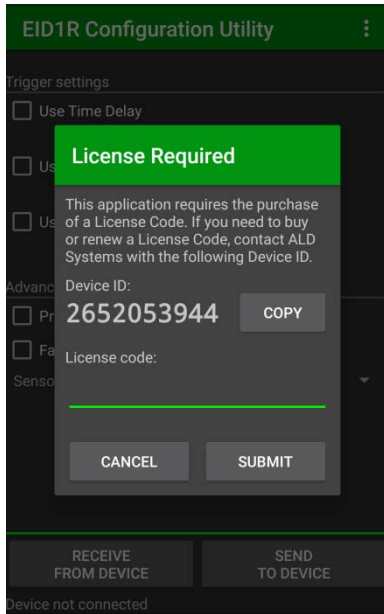
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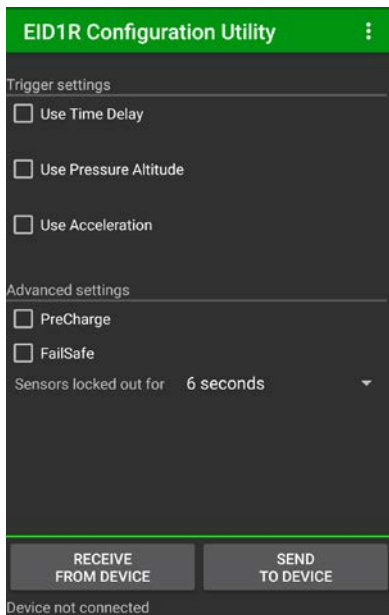
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## Open the App

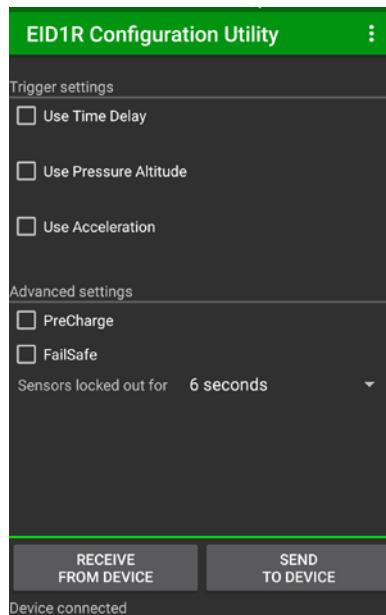


First launch of mobile app: *License code required*  
-contact ALD Systems with the Device ID to buy or renew

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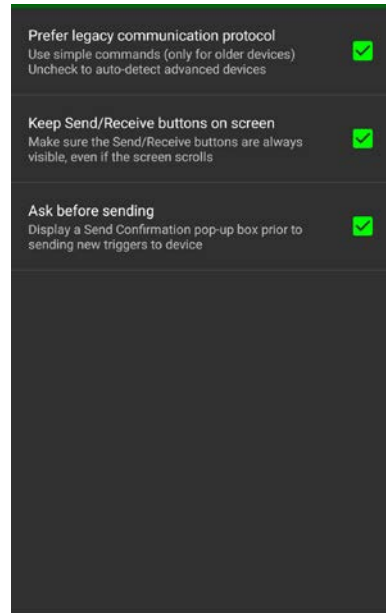
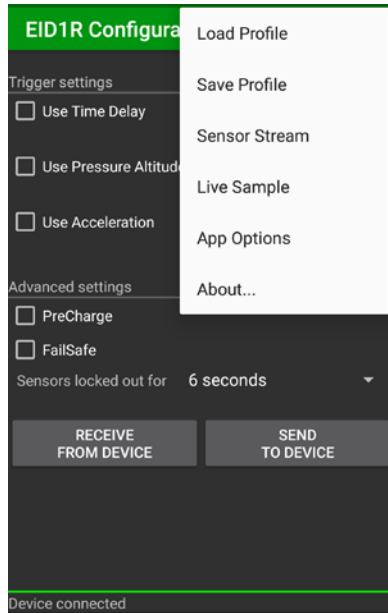
Launch screen of mobile app  
-Status Bar in lower left



EID1R device plugged in via OTG cable  
-Status Bar: *Device connected*

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## Menu



### Menu choices

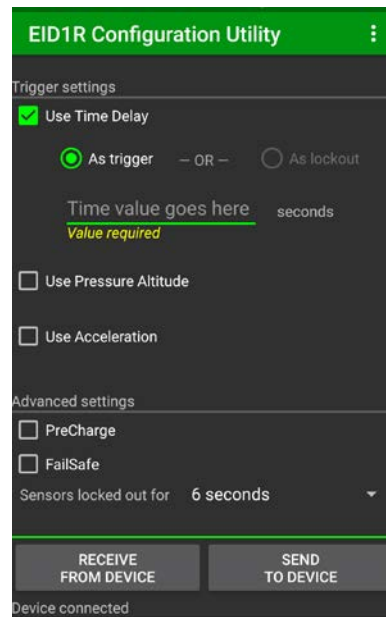
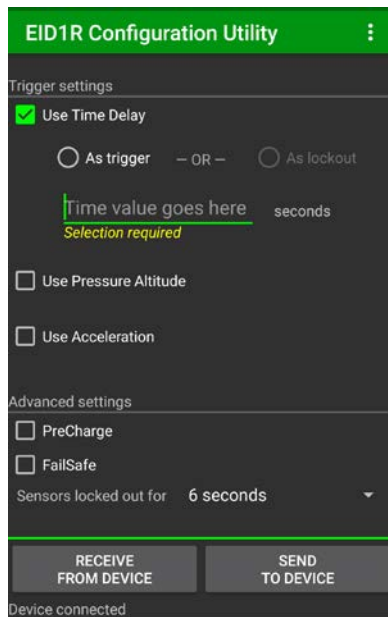
- Load or Save trigger settings
- Live Sample is one reading of each sensor
- Sensor Stream is continuous readings (not available on all devices)

### App Options selected

- All options enabled by default

## Use Time Delay

### Set As Trigger

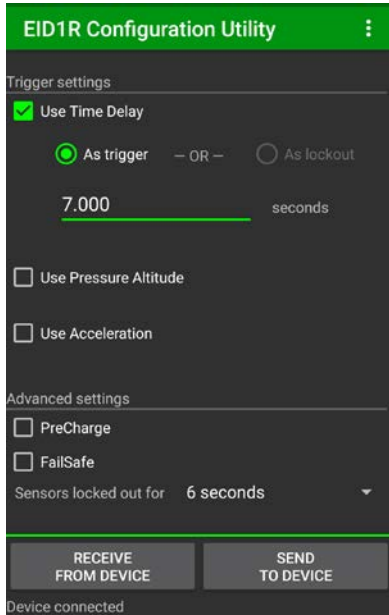


### Select which trigger(s) to enable

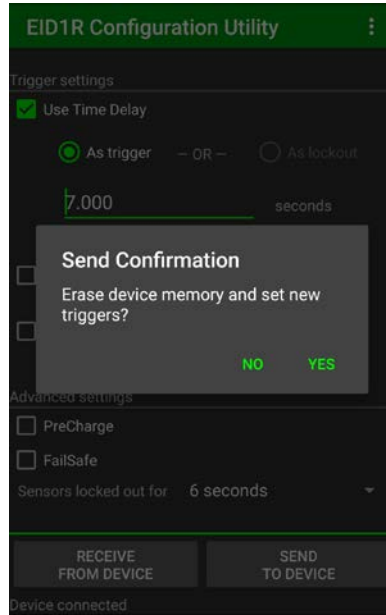
- Use Time Delay selected
- Read warnings/errors in yellow text

### Select how to use the timer

- As trigger selected
- Read warnings/errors in yellow text

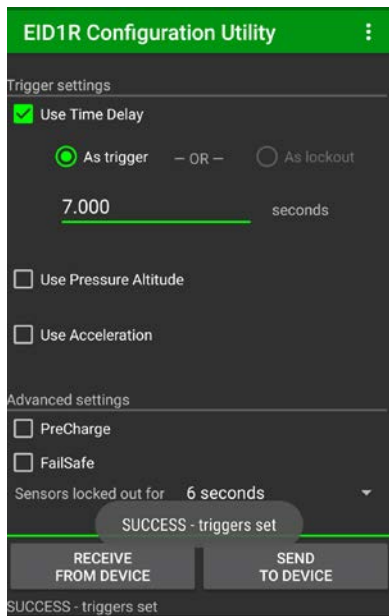


Enter time delay (e.g. 7.000 seconds)  
-Ready to program device...



Tap *SEND TO DEVICE* button  
-Confirm action by tapping *YES*  
-Enable/disable in menu > *App Options*

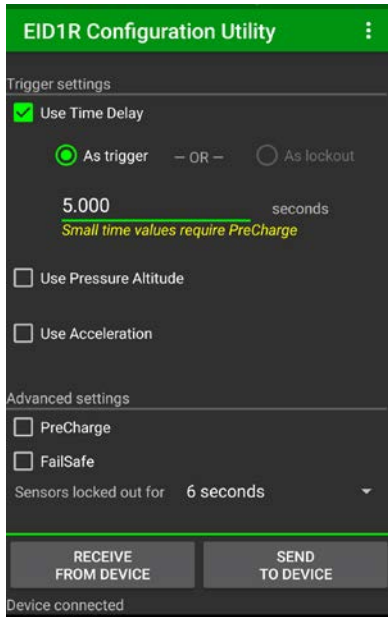
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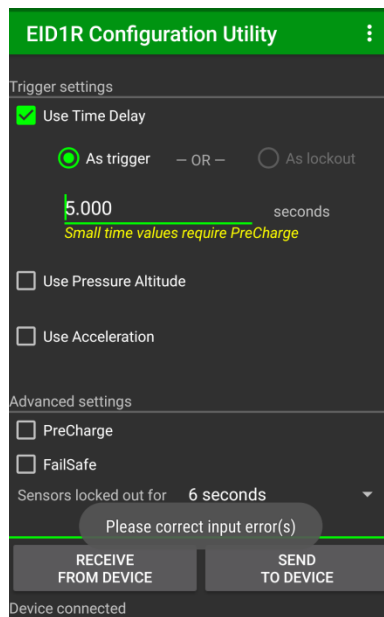
Success indicated by pop-up  
-Status Bar: *SUCCESS - triggers set*

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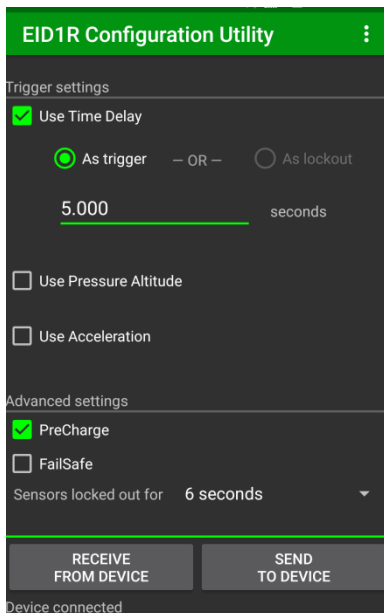
## Short Time Delays



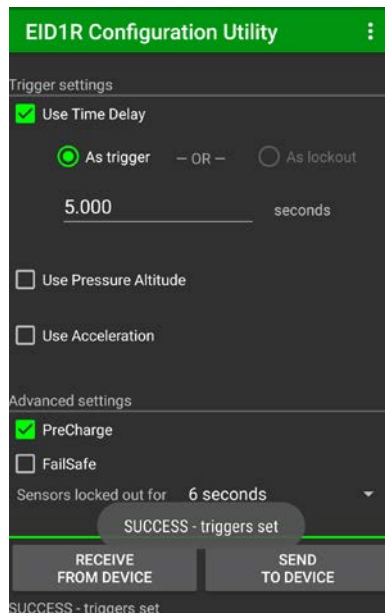
Enter time delay (e.g. 5.000 seconds)  
-Read warnings/errors in yellow text



Tap *SEND TO DEVICE* button  
-Send fails, pop-up: *Please correct input error(s)*  
-Read warnings/errors in yellow text



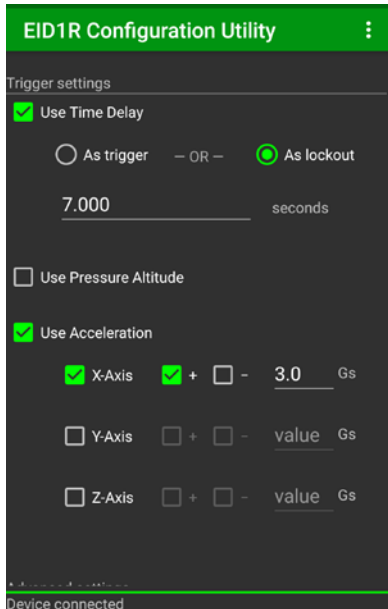
Select *PreCharge* for time < 6 seconds



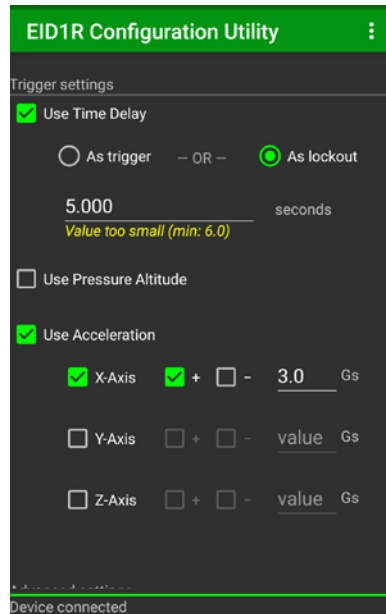
Send success indicated by pop-up

## Set As Lockout

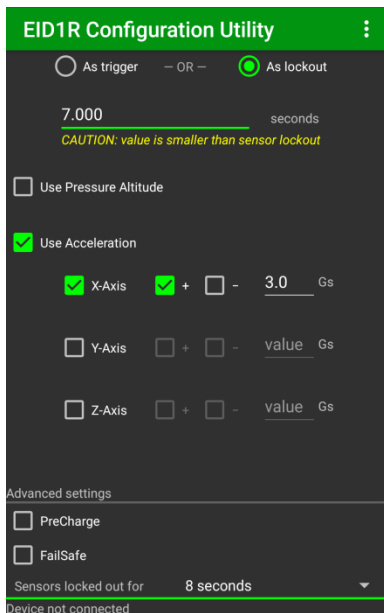
Use Time Delay *As lockout* is available when additionally using *Pressure Altitude* and/or *Acceleration*



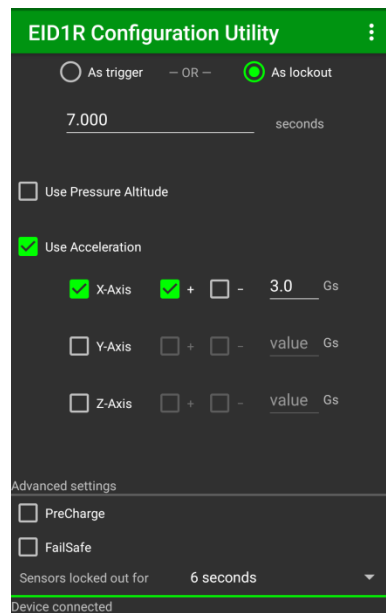
Select *As lockout* radio button  
-Enter time value (e.g. 7.000 seconds)



Enter time value (e.g. 5.000 seconds)  
-Read warnings/errors in yellow text  
-Time value as lockout must be  $\geq 6$  seconds



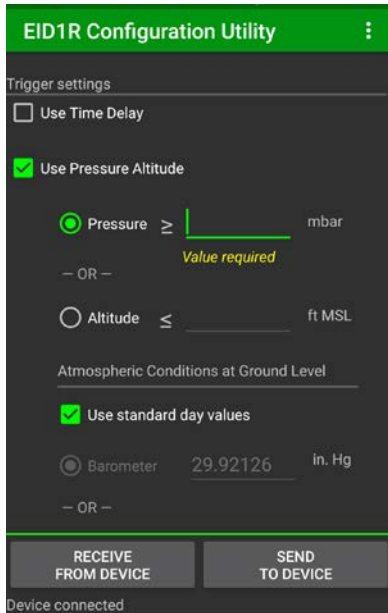
*Sensors locked out for "8 seconds"*  
-Sensor lockout > time lockout  
-Read caution in yellow text



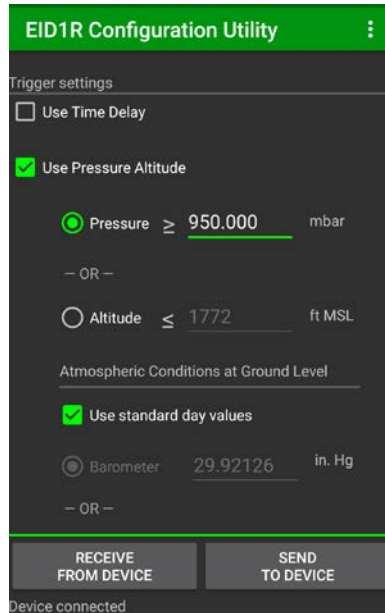
*Sensors locked out for "6 seconds"*  
-Sensor lockout  $\leq$  time lockout

# Use Pressure Altitude

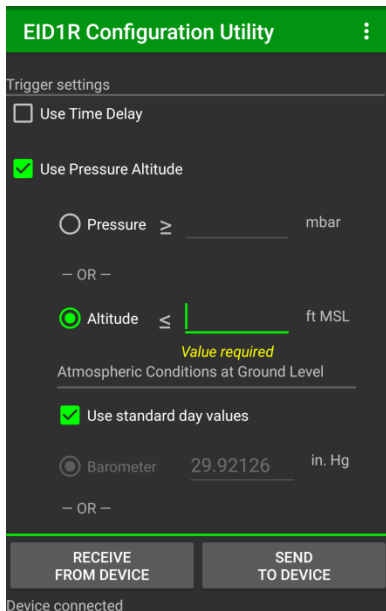
## Standard Day Values



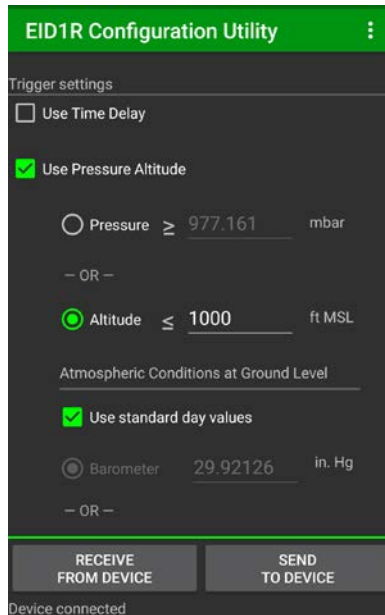
Select which trigger(s) to enable  
-Use *Pressure Altitude* selected  
-Read warnings/errors in yellow text



Select which value to enter  
-*Pressure* selected; enter value (e.g. 950 mbar)  
-Read estimated altitude displayed



Select which trigger(s) to enable  
-Use *Pressure Altitude* selected  
-Read warnings/errors in yellow text



Select which value to enter  
-*Altitude* selected; enter value (e.g. 1000 mbar)  
-Read estimated pressure displayed



## Non-standard Day Values

De-select *Use standard day values*

-Select which ground level pressure value to enter

The screenshot shows the 'EID1R Configuration Utility' interface. At the top, there is a green header with a menu icon. Below it, there are several input fields: 'Pressure' with a value of 950.000 mbar, 'Altitude' with a value of 1816 ft MSL, 'Barometer' with a value of 29.98000 in. Hg, 'Field Pressure' with a value of 996.668 mbar, 'Field Elevation' with a value of 500 ft MSL, and 'Field Temperature' with a value of 70.0 °F. A checkbox labeled 'Use standard day values' is checked. The text 'Device connected' is visible at the bottom.

The screenshot shows the 'EID1R Configuration Utility' interface. At the top, there is a green header with a menu icon. Below it, there are several input fields: 'Pressure' with a value of 978.730 mbar, 'Altitude' with a value of 1000 ft MSL, 'Barometer' with a value of 29.98000 in. Hg, 'Field Pressure' with a value of 996.668 mbar, 'Field Elevation' with a value of 500 ft MSL, and 'Field Temperature' with a value of 70.0 °F. A checkbox labeled 'Use standard day values' is unchecked. The text 'Device connected' is visible at the bottom.

Select *Barometer*; enter value (e.g. 29.98 inches of Mercury)

-Enter *Field Elevation* (e.g. 500 feet MSL)

-Enter *Field Temperature* (e.g. 70 degrees F)

-Read displayed *Field Pressure* estimate

The screenshot shows the 'EID1R Configuration Utility' interface. At the top, there is a green header with a menu icon. Below it, there are several input fields: 'Pressure' with a value of 950.000 mbar, 'Altitude' with a value of 1631 ft MSL, 'Barometer' with a value of 29.78773 in. Hg, 'Field Pressure' with a value of 990.000 mbar, 'Field Elevation' with a value of 500 ft MSL, and 'Field Temperature' with a value of 70.0 °F. A checkbox labeled 'Use standard day values' is unchecked. The text 'Device connected' is visible at the bottom.

The screenshot shows the 'EID1R Configuration Utility' interface. At the top, there is a green header with a menu icon. Below it, there are several input fields: 'Pressure' with a value of 972.159 mbar, 'Altitude' with a value of 1000 ft MSL, 'Barometer' with a value of 29.78773 in. Hg, 'Field Pressure' with a value of 990.000 mbar, 'Field Elevation' with a value of 500 ft MSL, and 'Field Temperature' with a value of 70.0 °F. A checkbox labeled 'Use standard day values' is unchecked. The text 'Device connected' is visible at the bottom.

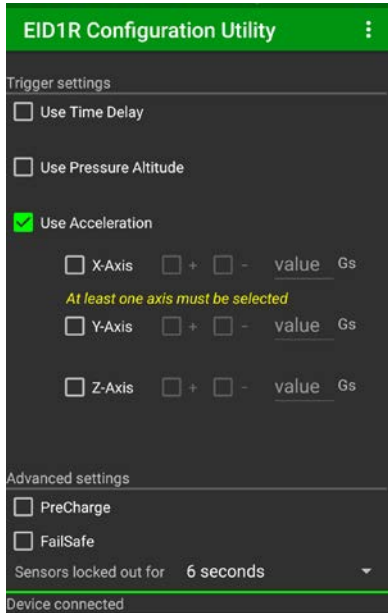
Select *Field Pressure*; enter value (e.g. 990 mbar )

-Enter *Field Elevation* (e.g. 500 feet MSL)

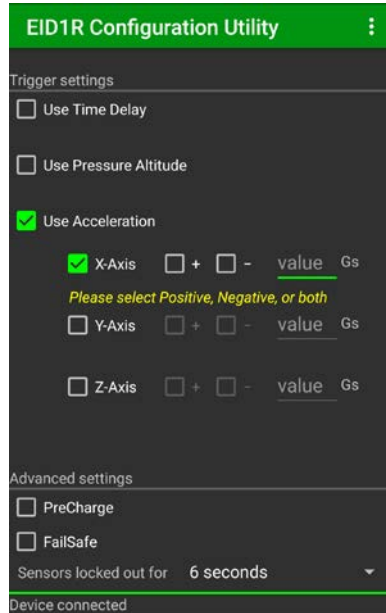
-Enter *Field Temperature* (e.g. 70 degrees F)

-Read displayed *Barometer* estimate

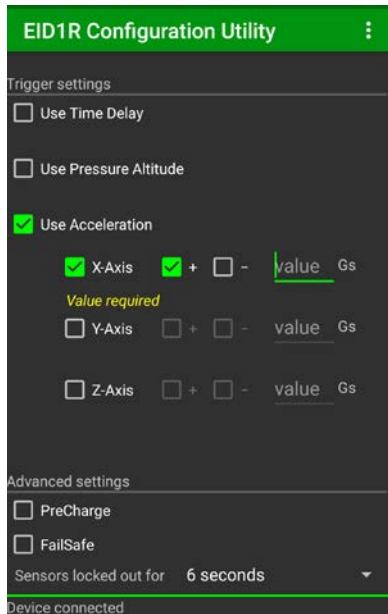
## Use Acceleration



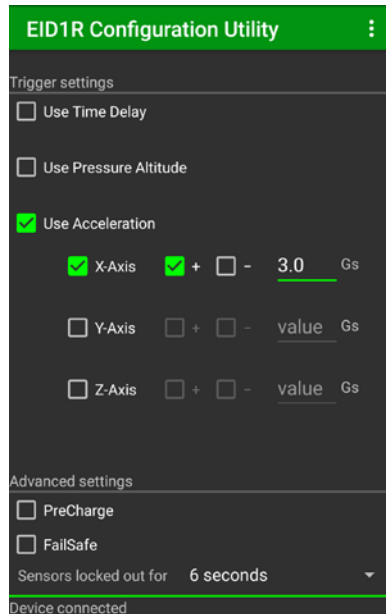
Select which trigger(s) to enable  
-Use Acceleration selected  
-Read warnings/errors in yellow text



Select which axis or axes to enable  
-X-Axis selected  
-Read warnings/errors in yellow text



Select axis direction(s)  
-Positive direction selected  
-Read warnings/errors in yellow text

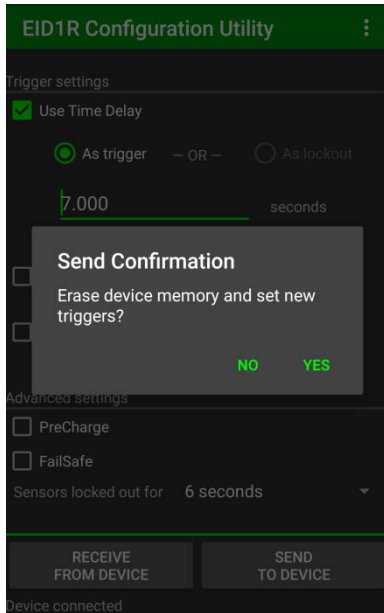


Enter acceleration value  
-e.g. 3.0 G's entered

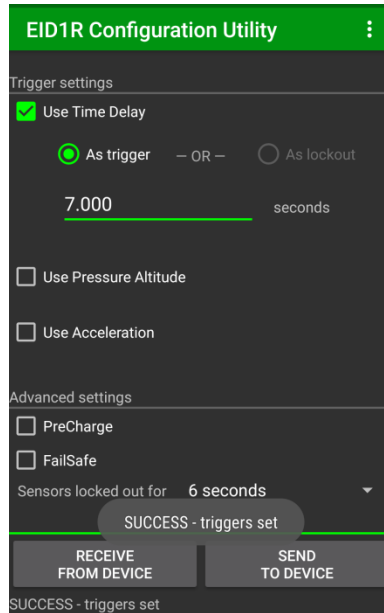
## Communication

All communications are reserved for first 5 seconds after device is connected via OTG cable  
-Earlier attempts will display a "Please wait" notification until 5 seconds elapses before completing action

## Send Configuration



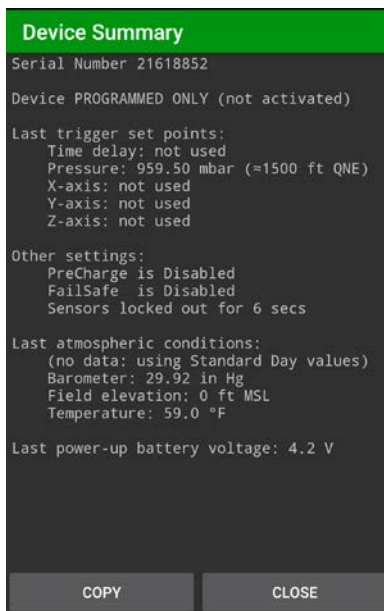
- Tap **SEND TO DEVICE** button
- Confirm action by tapping **YES**
- Can enable/disable in menu > *App Options*



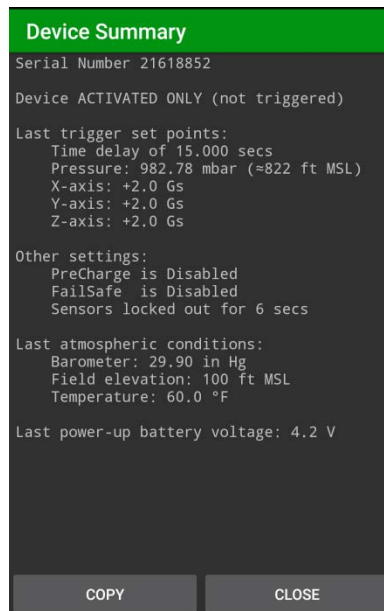
- Success indicated by pop-up
- Status Bar: **SUCCESS - triggers set**

## Receive Device Summary

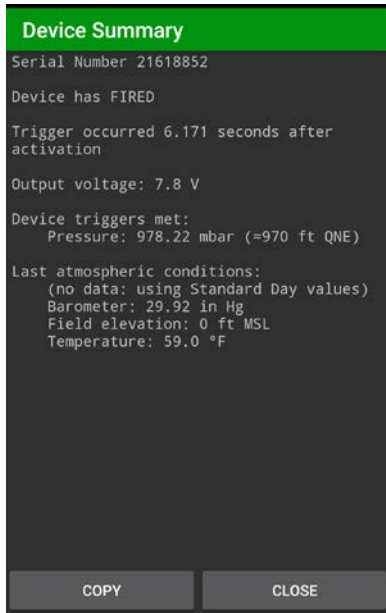
- Tap **RECEIVE FROM DEVICE** button
- Device Summary examples follow



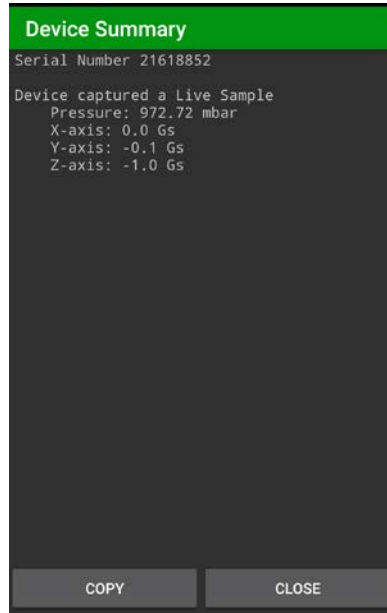
- PROGRAMMED ONLY**
- Device not activated yet
- Note altitude is QNE estimate, when *Last atmo conditions: no data*



- ACTIVATED ONLY**
- Device was running, triggers not met before power-down
- Note altitude is MSL estimate, when *Last atmo conditions* are valid



**FIRED**  
-Device was active and met trigger(s)



**Live Sample**  
-Device recorded one reading of each sensor

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## Notes